



Yashwantrao Chavan Maharashtra Open University

Agricultural Extension and Farm Journalism

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FOREWORD

Dear Students

The School of Agricultural Sciences of our university has always remained at the forefront in planning and implementing need based and innovative programmes in Agricultural Sciences through the distance mode. They have worked out a unique and flexible model of multiple entry and multiple exit that provide for vertical mobility for each and every aspirant in the farming community.

This university has received an International Award of Excellence in Distance Education from the Commonwealth of Learning, Canada, for its innovative approach in operating distance education to suit the common man and woman in every sphere of life. The university has catered to over six hundred thousand learners in Maharashtra including 40000 farmers since its establishment in 1989. The School of Agricultural Sciences has contributed substantially in this endeavour.

The School of Agricultural Sciences would now like to move further ahead and cater to the educational needs of village leaders, extension specialists and policy makers in the field of Agricultural Education and Development. Taking into account the national perspective, these are the nontraditional areas that need to be addressed with the help of the powerful tools of Information and Communication Technology (ICT) in order to reach the unreached.

The Post-Graduate and Research programmes in Agricultural Communication, Agricultural Extension and Agricultural Development would definitely equip and arm the agricultural experts in using tools of Information and Communication Technology and promote Virtual Education in Agriculture and Rural Development. The virtual education would proceed from Class Education to Mass Education and would cover distance learners from un-reached communities including farmers and farm women.

I am quite confident that the learners striving to complete these innovatively developed educational programmes would soon establish themselves as pillars of the distance education movement in India.

I wish you all a happy and rewarding learning experience in this university.

*Professor B. P. Sabale
Vice-Chancellor
Yashwantrao Chavan Maharashtra Open University, Nashik*

WEL COME

Dear Friends

On behalf of the School of Agricultural Sciences, I would like to welcome you to our Post Graduate and Research programmes in Agricultural Communication, Agricultural Extension and Agricultural Development. The programmes would meet the long felt need of extension workers and policy makers in the field of Agriculture and Rural Development.

The term distance education refers to Intentional Processes of Teaching and Learning in which physical space separates teachers and learners. Teachers and learners communicate through various media and an educational organization exists to design, facilitate and evaluate the educational process.

The Food and Agriculture Organization (FAO) is an international catalyst involved in promoting distance learning for diverse and globally distributed learners, organizations and communities, whose capacities and actions ensure the achievement of Food Security and Rural Development

The role of FAO in distance education and learning was spelt out in the Rome declaration on World Food Security, in 1996. The international community leaders had made the core commitment thus “We recognize the need to adopt policies conducive to investment in human resource development, research and infrastructure for achieving food security. Our sustainable development policies will promote full participation and empowerment of people, especially women and equitable distribution of income, access to health care and education and opportunities for youth.” Consistent with their commitment, FAO has recognised the best practices in pedagogy of distance education and distance learning.

With this commitment from FAO, it may safely be assumed that at flexible mode will soon be capable of reaching every home and will empower each individual to achieve a better standard of living. Since you are the ‘early bird’ having an access to distance education, your involvement as a student in our post-graduate programme, will certainly go a long way in benefiting the distance learning system in the country.

I wish you all the best in your learning endeavours.

*Professor Surya Gunjal
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Unit 1 : Fundamentals of Extension Education

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1.1 Introduction

Extension education is education for rural people outside the conventional schools and class rooms for bringing out social and cultural development (Supe, 1983). Extension literally means to extend, to spread or to disseminate useful information and ideas to rural people outside the traditional schools and classrooms. It is production of desirable changes in human behaviour. It involves working with people, from their present level on what they have and adding to what they know. It will raise their standard of living. Eminent social workers planned and executed several experiments in rural reconstruction to rebuild rural life. Still efforts are being made to rebuild the extension system on the recent advances to solve the present problems of rural people.

After the study of this unit, you will be able to know and understand :

- λ History and development of extension education.
- λ The objectives and philosophy of extension education.
- λ Attempts made by social workers in rural reconstruction.
- λ Advances in agricultural extension.
- λ Concept and programmes of community development.

1.2 Content

1.2.1 History and Development of Extension Education

In the first decade of the ninth century, a movement was started in the United States known as the “Co-operative Extension Service”. The word “extension” was applied to it in the British Universities. There were educational programmes within the walls of the university buildings. The programmes of “extension” was added to the ‘education’ programme already in vogue in these universities and increased its activities beyond the walls of the universities. This was to take the educational advantages of the universities to the ordinary people, where they lived and worked. It meant extension of the university and extension of its teaching functions away from its home location (Mosher, 1978).

Several experiments in rural reconstruction were undertaken in India by Government and Non-Government agencies. These experiences showed beneficial effect on rural reconstruction work. These rural reconstruction activities of Mahatma Gandhi, Rabindranath Tagore, the YMCA project of Maratandum, work done at Gurgaon, Etawah may particularly be mentioned in this context.

On the basis of the reports of various committees, pilot training cum-development projects were started all over India in 1952 with assistance from the Ford Foundation. Encouraged by the good response of the villagers in these projects, 55 community projects were started all over the country on 2nd October, 1952. The experience gained through community development projects led to the adoption of National Extension Service in India in 1962.

In order to secure full participation of people in development process. Balwant Rai Mehta committee recommended the introduction of Panchayat Raj paving way for democratic decentralization with the introduction of Panchayat Raj, a three-tier system was set up namely Village Panchayats, Block Samities and Zilla Parishads. It provides a machinery for people's representatives working through statutory bodies to implement the Community Development.

It is known to all that due to various extension programmes, like Intensive Agriculture District Programme (IADP), Intensive Agriculture Area Programme (IAAP), High Yielding Varieties Programme (HYVP). Training and Visit System (T&V) etc the green revolution was possible in India.

If every human group had been left to climb upward by its own unaided efforts, progress would have been so slow that it is doubtful whether any society could have by now advanced beyond the level of stone age. The need for extension arises out of the fact that the condition of the people in general and the farm people in particular, need to be helped to overcome their problems. There is a gap between what is the actual situation and what ought to be the desirable situation. This gap needs to be narrowed down by application of science and technology in their enterprises and bringing appropriate changes in their behaviour.

According to Supe (1983) the researchers neither have time nor equipped for the job of persuading the villagers to adopt scientific methods, and to ascertain from them the rural problems. Similarly it is difficult for all the farmers to visit the research stations and obtain first hand information. Thus there is a need for an agency to interpret the finding of research to the farmer and to carry the problems of the farmers to research stations for a solution. This gap is filled in by the extension agent. Huge scientific knowledge is generated which need to be transmitted to the ultimate users and this is done by extension agencies. These agencies are developing and taking various forms to cater to the need of the hour.

1.2.2 Objectives and Philosophy of Extension Education

The objectives of extension education is to raise the standard of living of rural people by helping them in using their natural resources like land, water, livestock

etc. in right way. The rural people are helped in planning and implementation of their family and village plans for increasing agricultural production, improving existing village crafts and industries. The specific objectives of extension education are stated in the following lines.

1. The fundamental objective is the development of the people and to provide the farmer the knowledge and help that will enable him to farm more efficiently to increase his production and income.
2. To encourage the farmer to grow his own food, eat well and live well as well as to promote better social, natural, recreational, intellectual and spiritual life among the people.
3. To help the members of the farm family for appreciation of opportunities, the beauty and preivilages of rural life and to know more about the world in which they live and to open new opportunities for rural people so that they may develop all their talents and leadership.
4. To build rural citizens who are proud of their occupation, independent in their thinking , constructive in their out look, capable, efficient and self reliant in character and have a love of home and country in their heart.

Philosophy of Extension

Extension education is based on the philosophy that rural people are intelligent, capable and desirous of receiving information and making use of it for themselves and the community welfare. It assumes that direct approach to people is required. It means friendly relationship and mutual trust between the extension worker and the people. The extension worker must have thorough knowledge of the problems of the people. His approach to the people should be truly democratic. It is based on the principle of helping them to help themselves. The extension efforts should be to bring economic development of the people in the first instance. It means first develop the people and they will develop their farms, livestock, recreational facilities, public services, their country and whatever they feel need for.

Philosophy of extension holds that, if farm people fully understand their relationship to natural resources and other factors they deal with, it is possible for

them to attain personal satisfaction in their way of life. Thus the basic philosophy of extension is directed towards changing the outlook of the people by educating them.

1.2.3 Earlier Efforts in Rural Reconstruction

Towards the beginning of the nineteenth century there was a feeling among eminent social workers that rural life was fast deteriorating due to several factors. These social workers planned certain experiments in rural reconstruction which proved beneficial in the area where they were undertaken. A close scrutiny of these efforts provides an insight into the background of the earlier efforts in the rural reconstruction.

1. Sevagram Project

It was started under the guidance of Mahatma Gandhi in 1920 in Maharashtra. The objectives of the project were to provide service to the under privileged, achieving self dependency and providing basic education to people. The main activities of the project were organization of training centres for cottage industries, prohibition, removal of untouchability, stressing education of women and basic education and preaching and practicing communal unity. Very high personal standards were set in the project which were difficult for the common man to reach and therefore the project could not provide expected results. However, it provided guideline for further reconstruction programmes.

2. Shriniketan Project

Rabindranath Tagore in collaboration with Elmhirst started this project in 1921 in West Bengal. The aim of the project was to win friendship of the villagers and to make honest efforts to assist them in solving their most pressing problems. The idea was also to develop the resources of the people, their credit and to teach them better methods of growing crops, vegetables and keeping livestock. It also aimed to encourage the villagers to learn and practise arts and crafts and to bring home to them the benefits of associated life, mutual aid and common endeavour. The project could not make much headway due to lack of funds to finance the extended activities. Comparatively less educative work was planned for women in villages. There was

tendency towards urbanization. The project was idealistic but practical aspects of the projects were neglected. However, the friendly approach to people helped in establishing rapport and know their problems.

3. Maratandum Project

The project was started by Hatch in Travancore state in 1921 under the auspices of YMCA. The objectives of the project was to bring about a complete upward development towards abundant life for rural people in spiritual, mental, physical social and economic fields. The working principles of the project were self help with expert guidance, training persons to improve their performance, making people conscious of their wants and needs and organising reconstruction programme to include the poorest. The main shortcomings of the project were inadequate funds and government help. The activities were mainly organised at Martandum and the village workers did not stay in villages. The religious bias of the institution was also a major hinderance in its activities. However, the workers worked with missonery zeal and established cordial relations with people.

4. Gurgaon Project

This was organized by Bryne, collector of Gurgaon district in Punjab in 1920. He was prompted by the poverty and misery of the people. In the project, emphasis was laid on increasing farm yields, curtailing expenditure on social and religious functions, improving health standards and organizing welfare programmes. Village guides were appointed in villages who made extensive use of films, folk songs, dramas etc to approach the people. The project could not develop leadership in villages that would have continued the work when the village guides had left the villages. The village people were never made party to the programme planned for them. Most of the work was done by exercising authority over the people rather than by obtaining their voluntary participation.

5. Etawah Project

This project was organised by an American Architect Albert Mayer in 1948. The objective of the project was to see the extent of possible improvement in

production, social life, self reliance and co-operation in an average district. It was also an attempt to see how quickly the results could be obtained in aforementioned aspects. It was also intended to see whether the results obtained could be permanent and introduceable elsewhere. The activities were introduced with the help of trained village level workers located in villages. Co-operation of other departments and agencies was enlisted. The project proved to be successful and on similar pattern extension activities were organized in India. In addition to the foregoing projects other projects were also undertaken at Baroda, Madras, Nilokheri and Faridabad which may be mentioned in this context.

1.2.4 Recent Trends in Agricultural Extension

Extension services in agriculture worldwide are vitally linked with the Government which undertake this work as states responsibility. However, during the last five decades the Government extension system is witnessing marked deterioration in services. Majority of workers declined to stay in the rural areas and serve farmers, and there is lack of incentive for efficient workers. It is difficult for the Government to disengage the services of the inefficient or incompetent workers from its machinery so as to replace them timely by suitable work force.

Similarly, out of the resources that the Government allocation for extension work, about 85 per cent amount is spent on salaries and allowances. This prevents the purchase of farm equipment and implementation of extension activities on broad scale. The growing inability of the Government to provide adequate funds for extension system is the key driving force for search for alternative approaches such as 'cost sharing' and 'privatization' of extension services.

Private extension services are being encouraged by the Government with the assumption that it generates new income and affords demand driven, cost effective and quality services to the farmers. It will compliment the present public extension system and ensure appreciable client accountable service to farmers. The extension works in this century would have to be a judicious blend of public, private, voluntary, co-operative and participatory extension works. Currently private extension services have a wide scope in the irrigated areas, dominated by plantation crops.

Extension workers succeed through progressive interaction with the growers at the farm level. They provide them appropriate cost effective solutions and collect a feed back from the grower at the time of harvest. The Government machinery is understandably inadequate in extension efforts in every state where other agencies can supplement. The persuasions of Government to look to the private sector for greater contribution to farm extension efforts are understandable. One of the notable moves it made recently is offering significant support to agricultural graduates in setting up of small scale agribusiness ventures in the form of countrywide agriclincs and agribusiness centres.

It does not mean to replace the present public extension services by the private extension services. The present extension system is affected by over runs due to heavy official paperwork, concentrating largely on accounts and work targets. This system discourages the enterprising extension workers due to political and other local influences. Presently the public extension works are aimed at augmenting agricultural productivity and exclude responsibility for marketing and realizing fair remunerative prices to the farmers. To overcome these problems the extension services can be insured through specific targets at fundamental level. Constitution of Panchayat Rural Extension at village level need to be reoriented to solve the present day problems of the farmers. This can be done by assigning specific responsibilities for the farm oriented works such as water harvesting. Soil conservation, plantation, vermicomposting of garbage with result oriented approach. The present extension services at the grass root level will have to be reoriented to deliver the goods.

To sum up, the recent trend in Agricultural Extension includes the following changes in the existing mechanism of extension system.

- λ Transfer of Technology Mode to Technology Application Mode.
- λ Group Approach to Agricultural Extension
- λ Involvement of Community-based organizations
- λ Associating State-holders in promoting and processing of agricultural products.
- λ Shift from Government system of extension to broad-based extension system.
- λ Formation and training of self-help-groups and associating them in TOT as Para Extension workers.

- λ Multi dimensional and Multi-Agency pluralism Approach of TOT rather than depending exclusively on the line Department of Agriculture/Horticulture of the state Governments.
- λ Giving priority to agriculture in ICAR supported IVLP and KVK programmes.
- λ Partnership Mode between Public Sector Extension, participatory Extension and Private Extension.
- λ Co-existence of all the sub systems and Agencies i.e. Government Agencies, Private Agencies, Stake-holders, input Agencies, Credit Agencies, Non-Government Organizations and Voluntary Organizations in a partnership mode.
- λ Increasing use of mass-media umbrella including electronic media in mediamix mode.
- λ Organising skill-based on –campus and off-campus and peripatetic trainings by inter-disciplinary group of specialists in different technology domains of Cultivation.
- λ Need-based, problem-solving, skill-oriented training for self-employment to promote commercial crops aimed at income-generation of farmers, young graduates, village youths, self-help groups etc.

Farmers’ participation has to be ensured at every stage of technology generation and technology dissemination. Farmers should, no more, be considered at the receiving end. Farmers should be the first, not the last. Their participation will help in identifying needs and problems as well as their prioritization, selection of fields and varieties of crops. Farmers’ involvement should be at every stage of field and on-farm tests, and in technology assessment and technology refinement. Farmers will learn more by following the principles of “*Seeing is believing*” and “*Learning by doing*”. Farmers’ participation will result into an interactive rapport with the neighbouring farmers even in follow-up measures after the trials and demonstrations are over and in technology spread and diffusion in the social system.

1.2.5 Community Development Programmes

Community development has come into international usage to connote the process by which the efforts of people themselves are united with those of

governmental authorities to improve the economic, social and cultural conditions of communities, to integrate these communities into the life of the nation, and to enable them to contribute fully to national progress. This concept of community development is used by United Nations while undertaking development programmes in developing countries.

The community development projects were started on 2nd Oct, 1952 in India. Community Development is rural extension programmes to initiate a process of transformation of the social and economic life of the villages. The main objectives of the programmes were (1) area development in which a minimum all round progress of the areas is expected, (2) self help programme in which peoples participation is consider to be essential feature and (3) development of the whole community with special emphasis on the weaker and under privileged sections of the community.

This programme has undergone change from time to time. The major change is due to the recommendations of the Balwantrai Mehta Committee. The democratic decentralization was introduced in the country with three-tier administrative structure at the district level. Most of the community development programmes were administered through this three tier system namely Zilla Parishad at district level, Panchayat Samiti at Block level and Gram Panchayat at village level.

1.3 Glossary

Extension Education : It is the system education for rural people outside the conventional schools and classrooms for bringing social and cultural development.

Three-Tier System of Panchayat Raj : It is a system to links village, block and district by forming bodies at each level.

Objectives : These are the ends in view which are to be achieved.

Rural Reconstruction : It is an effort to raise the standard of living of rural people.

Community Development : It is the process by which the efforts of people themselves are united with those of the governmental authorities to improve the economic, social and cultural conditions of communities.

1.4 Summary

Extension education is aimed for disseminating useful information to the rural people for bringing desirable changes in their behaviour. Early efforts in rural reconstruction showed that rural scenario can be altered by planned efforts by the people and the government. Community development and Extension programmes are undertaken for upliftment of the people. The fundamental objective of all these efforts is the all round development of the people by democratic methods. Recent trend of extension programmes are towards privatization. However, the public extension programmes are being altered to suit the modern trends.

1.5 Exercise for Practice

Answer the following questions in 200 words each.

1. Describe the history and development of extension education in India.
2. What was the necessity of the rural reconstruction programmes in India.
3. Describe the important rural reconstruction programmes undertaken by social workers in India.
4. State and explain the recent trends in agricultural extension education.

Unit 2 : Extension Methods, Tools and Techniques

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2.1 Introduction

Extension teaching methods or channels of communication are the tools in the hands of the extension workers in transforming new ideas. An extension worker has to deal with rural people. It is therefore imperative that one should understand the factors associated with adult learning especially the psychological factors in adult learning. Many rural people are illiterate and therefore the use of audio-visual is effective in communicating information to them.

After the study of this unit, you will be able to know and understand :

- λ Principles related to extension teaching.
- λ Details of extension teaching methods.
- λ Factors related to adult learning.
- λ Psychological factors related to adult learning.
- λ Role of Audio Visual Aids in extension education.

2.2 Content

2.2.1 Principles of Teaching in Extension

The principles of extension teaching are important in educating the rural people:

1. Extension starts where the people are and with what they have. Improvement can begin only from there. The people are in classrooms, on their farms, in their homes and in their villages.
2. Extension teaching need to be based on the needs of the people which are determined by the people and people learn to do by doing, hence demonstration is the best method of teaching and
3. Extension teaching is carried on either with groups of people or with individuals and extension works with and through people. Local leaders are to be identified, trained and used to spread information to others.
4. The spirit of self help is essential for democratic living. The voluntary participation of people should be obtained in teaching. Extension workers need to closely identify with rural people in teaching.

2.2.2 Teaching Methods in Extension

Methods are merely an orderly arrangement of subject matter for its best use. Certainly any one familiar with extension realises that special methods and extra efforts are required for successful teaching under village conditions. The choice of channel or method of communication is known as extension teaching methods. They are categorized as individual contact methods, group contact methods, and mass contact methods.

1. Individual Contact Method

In this method the extension worker communicates with the people individually, maintaining separate identity of each person. This method is followed when number of people to be contacted are few, are conveniently located close to the communicator and sufficient time is available for communication work. Examples are farm and home visits, office calls etc.

2. Group Contact Method

In this method, the extension worker communicates with the people in groups and not as individual persons. This method is adopted when it is necessary to communicate with a number of people simultaneously who are not located far off from the communicator and reasonably good time is available for communication. The size of the group may be small from 15 to 25 a medium group from 25 to 50 and a large group from 50 to 100 persons. Examples of group contact method are result demonstration method demonstration group meeting, field day, field visit, study tour etc.

3. Mass Contact Method

In this method the extension worker communicates with a mass of people, without taking into account their individual or group identity. This method is followed where a large and widely dispersed audience is to be communicated within a short time. There may be a few communicators such as the extension worker and some subject matter specialists. The size of the audience may be a few hundreds in mass meeting, few thousands in campaign and exhibition and millions in newspaper, radio and television.

In extension teaching one has to produce changes in human behaviour. The aim of extension education is to influence people to make desirable changes that contribute to better living in their homes. The teaching methods vary with conditions. Skilled extension workers will quickly recognize the tools to use, how often to use them and in what combination to use them for an effective job.

2.2.3 Adragogy and Adult Learning

Learning is a process by which a person becomes changed in his behaviour through self activity. Learning is a process of progressive behaviour adoption.

Up till very recently, the pedagogical (children learning) model has been applied equally to the teaching of children and adults in a sense, this is contradiction in terms. The reason is that as adults are mature, they become increasingly independent and responsible for their own actions. They are often motivated to learn by a sincere

desire to solve immediate problems in their life. Additionally, they have an increasing need to be self directing.

Andragogy refers to the adult learning. The growth and development of andragogy as an alternative model of instruction has helped to improve the teaching of adults. But such improvement did not occur over night. The word androgogy derived from a meaning adult and agogy. Knowels (1980) defined the term as the art and science of helping adults to learn. He suggested that androgogy is simply another model of assumption about learners to be used alongside the pedagogical model for testing out few basic assumptions about learners, all of which have some relationship to a learners ability, need and desire to take a responsibility of learning.

1. Their self concept moves from dependency to independency or self directedness.
2. They accumulate a reservoir of experiences that can be used as a basis on which to build learning.
3. Their readiness to learn becomes increasingly associated with the developmental tasks of social roles.
4. Their time and curricular perspectives change from 'postponed' to 'immediately' of application used from subject centeredness to performance centeredness.

Based on these assumptions he developed a process for teaching adults known as the andragogical model.

2.2.4 Psychological Factors in Adult Learning

The communication media with which an extension agent can work are limited as well all known by the fact that many cultivators in India are illiterate. This does not mean that they are not intelligent. It mean that communication media are largely limited to the spoken words and pictures and documentations to go with the spoken words. It is implied that extension workers has to make personal contact both individual and group and establish rapport and empathy with the cultivators.

It is necessary that the psychology of farmer must be known to us. The extension worker has to establish rapport with the cultivators. Only then the cultivators will accept the extension worker. He will have confidence in what he recommends, and then only they will come to him for advice in improving their practices. This rapport

can only be established, on your part by demonstrating your genuine concern for the welfare of the cultivators and their families. Your understanding of the problems they face and the successful demonstration of your practical knowledge of how to meet their problems, especially in increasing production is important.

1. Four Basic Wishes

The farmers cherish four basic wishes and try to fulfil them in their life. The extension teaching should help in fulfilling these wishes, only then, the farmers will participate in the extension programmes. These four wishes are detailed below. The people are motivated to learn, if they can satisfy their basic needs or wishes through learning.

- (a) **Wish for security** : Average farmers in India lives very close to the margin of insecurity. A single crop failure can cause entire village or even tract to be thrown into panic and despair. It is therefore, most cultivators hold fast to the old 'tried and true' methods and are afraid to try any thing new that will upset this delicate balance between his present security and possible insecurity. The wise extension worker has to be very cautious in insisting whole change to new methods rather than he will encourage the cultivator to try out new practices in small way.
- (b) **Desire for response** : Results that count and not only the efforts. The farmer will be willing to try new methods if they fulfil his need and provide good solution to his problems. Hence new methods to be introduced among the farmers need to carefully chosen.
- (c) **Wish for recognition** : By adopting new ideas and practices the farmers feel that they should be recognized. This recognition may be in terms of status, prestige, achievement and being looked up to in the community.
- (d) **Desire for new experience** : The farmers are anxious to gain new experiences in the form of adventure, new interests, new ideas, new friends and new ways of doing things.

2. Psychological Characteristics of Farmers

There are certain peculiar characteristics related to the villagers which need to be considered while undertaking extension teaching.

1. The villagers are more emotional than rational in their behaviour. This emotionality many times lead to non-rational decisions.
2. The villagers are suspicious of the suggestions from the strangers or outsiders and the villagers are more imitative and imitate other fellow villagers who are their peers or opinion leaders.
3. The villagers live in groups and have great loyalty to the groups. They confirm to the aims and objects of the group. Most of the villages follow the traditions of the community and are not ready to deviate from the age old methods.
4. Every individual has latent creative capacities. The villagers are not exception to this creativity but they need to be liberated from their traditional thinking and making them pragmatic.
5. The artistic tendency among the farmers must be valued and developed. This creative instinct can be used while introducing innovations. There is more religiousness among the villagers. The new methods which are in line with religious thinking are easily accepted by the villagers.
6. There are many negative traits in some section of the villagers. Some of them are secretiveness, cowardice, imprudence, dishonesty. Efforts have to be made to inculcate positive traits like cheerfulness, reliability, sincerity, truthfulness, co-operativeness, kindness, companion, tolerance etc.

2.2.5 Audio-Visual Aids for Extension Education

The audio-visual aids are instructional devices which are used to communicate messages more effectively through sound and visuals. The aids help in stimulating the sensory organs like ears and eyes and facilitate quick comprehension of message by the audience. These may be used for literate as well as illiterate people.

All the aids can be classified into three categories according to the sense being used.

1. Audio-Aids : These instructional devices, which can be heard are called audio-aids. For example tape recorder, radio, cassettes etc.
2. Visual-Aids : These aids can only be seen. For example photographs, posters, charts etc.
3. Audio-visual-aids : These aids which can be heard as well as seen. For example sound films, television, video films or tapes etc.

Advantages of Audio-Visual Aids

The audio-visual aids has the following advantages

1. The audiovisual aids capture audience attention and arouse their interest and highlight main point of the message clearly.
2. The possibility of misinterpreting concepts is reduced and one can structure the learning process more effectively.
3. Message perceived with several senses are understand and retained better and provide experience otherwise difficult to get.
4. Help to reach more people irrespective to their level of literacy and language and speed up the process of learning.
5. Can adapt the speed of presentation to the reactions of the audience and save time of teacher and learner.

Choice of Audio-Visual Aids

Audio-visual aids are to be used singly or in combination with other methods. The extension worker should be well versed with the audio-visual aids and should possess sufficient skill in handling them. The choice of audio-visual aids depends on the following criteria.

1. Teaching Objectives and nature of subject matter taught.
2. Nature of audience viz. age, education, interest, experience, knowledge, intelligence etc.
3. Size of audience and availability of equipments, materials and funds.
4. Skill and experience of the extension agent in preparation of presentation and use of audio-visual aids and organization of auto visual programmes.

2.3 Glossary

Extension Teaching Methods : These are the tools in the hands of the extension workers in transferring new ideas.

Learning : It is a process by which a person becomes changed in his behaviour through self activity.

Audio–Aids : These are instructional devices which can be heard.

Visual–Aids : These are instructions devices which can be seen.

Audio-Visual Aids : These are aids which can be heard as well as seen.

2.4 Summary

In transfer of new ideas extension teaching methods, and techniques play vital role. The principles of teaching in extension provide a base for action in the use of these methods. Adult learning is slightly different from formal pedagogical learning. The adults have different motivations in learning which needs proper consideration. The psychological factors associated with adults are important and should be properly understood before undertaking the teaching programme. The Audio Visuals play important role in teaching and therefore should be used in teaching.

2.5 Exercise for Practice

Answer the following question in 200 words each.

1. Describe the principles of teaching in extension education.
2. Describe the role of teaching methods in extension.
3. State and explain various extension teaching methods with examples.
4. Describe the psychological characteristics of Indian farmers.

Unit 3 : Rural Sociology

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3.1 Introduction

Sociology is the scientific study of people in group relationships. Sociologists utilize scientific methods in their research studies and develop a body of accurate and reliable knowledge about human relationships. In sociology the human beings are not studied as individuals but rather in their relationship with other persons. The rural sociology is the systematic study of people living in rural areas and who are immediately dependant on agriculture.

After the study of this unit, you will be able to know and understand :

- λ Differences between urban and rural life.
- λ Groups, their organization and process of socialization.
- λ Structure and functions of society.
- λ Stratification of rural society.
- λ Various types of social changes in rural society.

3.2 Content

3.2.1 Introduction to Rural Sociology

The rural people differ from the urban people. The differences are mainly due to the environment and its consequent impact on the personalities and lives of the people. Here we are mainly interested in the characteristics of rural people. This rural-urban difference is presented in the following table with reference to certain characteristics.

	<i>Characteristics</i>	<i>Rural Society</i>	<i>Urban Society</i>
01	Occupation	Agriculture	Non-Agriculture
02	Work Environment	Open, air, close to nature. Mostly related with soil, water and animal life.	Enclosed, away from nature. Mostly related with trade, commerce, industry, office work and the like.
03	Weather and Season	Very important to rural people	Not so important to urban people
04	Skills	Require wide range of skills	Require specialized skills
05	Work Unit	Family as work unit more common	Individuals generally form work units.
06	Type of Family	Joint and extended family with large size	Smaller, nuclear family
07	Size of Community	Small and scattered	Large and Compact
08	Density of population	Low	High
09	Homogeneity and Heterogeneity	Relatively homogenous community	Relatively heterogeneous community

	<i>Characteristics</i>	<i>Rural Society</i>	<i>Urban Society</i>
10	Social Interaction	Few and Personal	Numerous and mostly impersonal
11	Institution	Small and Simple	Large and Complex
12	Social, occupational and physical mobility	Low	High
13	Infrastructure	Little to moderately developed	Well developed
14	Modern home development	Few	Many
15	Mass media development	Low	High
16	Value system	Generally sacred	Generally secular

3.2.2 Group Organization and Rural Socialization

A group is a unit of two or more people in reciprocal communication and interaction with each other. People generally associate with each other because of (i) Common ancestry, (ii) territory shared is common, (iii) similar body characteristics and (iv) common interests. Group formation promotes discipline, loyalty, group responsibility and group pressure. The groups are classified in different ways by eminent sociologists. The important classifications are presented in the following paragraphs.

(1) Primary and Secondary Groups

Primary groups are those where there are face to face intimate contacts and interaction, informal personal relationships and a definite feeling among members. Primary groups have a sort of permanency, are small in size and have responsibility to socialize individuals for example family. Secondary groups are characteristics by formal, contractual, utilitarian and goal oriented relationship. Secondary groups are

large in size, have little-face-to-face communication and maintain a more or less anonymous relationship for example – Political Party, Co-operative Society.

(2) Formal and Informal Groups

Formal groups are organized, have a membership role, definite role or procedure of operation and rigidly enforced behaviour of its members. Example – Panchayats, Registered Societies. Informal groups are not formally organized and rules and procedure are not rigidly enforced. Example – Friendship groups, play groups etc.

(3) In Group and Out Group

The criteria for classification is group boundary which is generally determined by the attitude or feeling the people have towards their own group and towards others. An in group is one which the persons feel they belong and with which they identify themselves strongly. Not only they themselves, but others also feel them to be internal part of these groups. An out group is one with which other individuals cannot identify themselves. The individuals feel themselves outsiders to the group and the group also has a similar reciprocal feeling towards the individuals. Matter of vital interest are not shared with the out group members.

(4) Involuntary and Voluntary Groups

Involuntary group is one, for the membership of which, an individual does not have any choice or is not required to put any effort. Example membership by birth or residence such as family, neighbourhood, community, etc. A voluntary group is one for the membership of which one has to have some deliberate choice or put in some conscious effort. Example – Co-operative society.

Besides there is another type of group known as reference group. With which an individual identifies and may refer to in taking decision and action. An individual may not be a member of the reference group but still the attitude towards various aspects of life may be influenced by norms and objectives of ones reference group. An individual may select a group as a reference group, even if it is situated away and there is no face to face interaction with the group.

As member of the group an individual gains an access to the facilities and privilages offered by the group. The teaching can be done by approaching these groups.

Rural Socialization

Socialization is a process of inducting an individual into the social and cultural world to play his role as a member of society. In rural socialization the inherited potential of the persons in the rural environment is developed under proper conditions. The process of socialization starts from the birth of an individual. He comes in contact with the family members who teach him many things. A child reared in a friendly atmosphere will develop a different type of personality as compared to another child reared in a hostile atmosphere. Then an individual comes in contact with school. He keeps the ideal of the parents at home and the teacher in school. His circle of friends also play a vital role in his socialization. The man is known by the company he keeps. Other social contacts also affects the process of socialization. The personality of an individual emerges out of this process of socialization.

3.2.3 Structure and Functions of Society

Societies arise from reciprocal human relations. Societies are the largest overall organizational systems that unit men in corporate synthesis acting as units in given areas. Societies are man's most generalized and inclusive relationship structures. They are the overall organizational systems encompassing all the interrelated units that bind us together through interaction. They exist as realities apart from particular individuals that compose them in that the shared actions that unite the parts and give them continuity.

The societies are the products of many forces. Some of the structural elements associated with the society are given below.

- (1) **Identity** : Each society has its peculiar identity which differentiates it from another society. These identities may be its residence, caste, progressiveness etc.

- (2) **Composition** : It refers to the make up of the society. Society is composed of different sections of people like : male-female, educated-uneducated, rural-urban, traditional-modern, etc.
- (3) **Inter Group Reaction** : It refer to the relationship between groups. For example relationship between villages, castes, classes, etc.
- (4) **Intra Group Reaction** : It refers to the relationship within the groups. For example relationship between husband and wife in the families in the village. The Functional Elements related to the society are presented here.
- (a) **Objectives or Ends** : These refer to changes or things which members of the group are expected to accomplish though their interaction and activities. For example, to attain higher productivity or higher income from an enterprise.
- (b) **Norms** : The rules and guiding standards are norms, which prescribe what is socially acceptable or unacceptable. Norms govern the application of means in the attainment of goals. Determining the methods by which the goals are to be achieved, is generally guided by the norms of the society.
- (c) **Leadership** : It refers to the process through which a person directs, guides and influences the thoughts feelings and behaviour of other members of the society. The nature of the leadership determines the behaviour and level of achievement of the members of the society.
- (d) **Resources** : It refers to the various types of resources and potentialities a society possesses. Resources are important because they set the limits of achievement of the society. Example are human resources, physical resources like land, water, climate and weather, etc and technological resources like scientists, technologists and innovative ideas.

3.2.4 Social Stratification and Interaction

Social stratification is the arrangement of individuals or groups of people in to hierarchically arranged strata in a community. Even if what appears to be homogenous community, there may be internal inequalities, divisions or distinctions. These distinctions become patterned and stabilized over time. With internal distribution of

privileges, power and status possessions, the determinant of status are wealth ancestry functional utility of individual, religion and the biological characteristics.

Caste system and class system represent basic forms of social stratification. An extension agent should identify the following features of a local stratification system.

- (i) The number of strata and order in which they are arranged.
- (ii) Basis on which people are placed into different strata.
- (iii) Type of interaction among the strata.
- (iv) Role and influence of each stratum on village life.
- (v) How the different strata perceive change.
- (vi) How different strata would be affected by a particular programme.

Social Interaction

Sutherland and others (1974) defined social interaction as that dynamic interplay of forces in which contact between persons and groups results in a modification of attitudes and behaviour of the participants. The interaction process have been classified on the basis of their co-operative or oppositional nature.

(a) Processes of Unified Action

- (1) Co-operation means working together toward common objectives or goals. Co-operation may be informal as in the family, with the neighbours, etc. or formal i.e. legal type as found in formal organizations, like registered societies, offices, etc.
- (2) Accommodation results where persons and groups accept each others views and develop a common understanding. It is a process of getting along despite difference a sort of compromise, tolerance, arbitration. etc.
- (3) Assimilation means fusion and merging where by cultural differences tend to disappear. Assimilation implies complete merging of divergent cultural groups within a society.
- (4) Acculturation refers to the changes in culture that result from continued contact between two cultures. Modern transport, communication, overseas development programmes facilitate the process of assimilation and acculturation.

(b) Processes of Opposition

- (1) Competition is the process in which persons and groups compete with each other to reach a goal. i.e. competition for profit, competition for control and ownership, ethnic groups competition. Competition may have both positive and negative aspects. Too much competition may generate tension and feeling of in-security. On the other hand competition may motivate persons to strive for excellence and achieve desired goal.
- (2) Conflict refers to struggle in which competing parties attempt to reach a goal, try to eliminate, abolish, wipe out or make other party in effective. Conflict emerge as a result of opposing interests. Conflict arises in period of crises.

3.2.5 Social Change

Social change involves alteration in the structure and function of society. Implied in it is cultural change, as culture is an internal part of society. Social change occurs in all societies. It is slow in primitive and folk societies and rapid in complex modern societies.

(1) Aspects of social change

- (a) Structural Change :** It involves changes in roles, emergence of new roles, changes in class and caste structure and changes in social institutions such as family , the government or educational system.
- (b) Functional Change :** It refers to changes in interactional processes between persons and groups. Changes may be in the frequency of social contacts, a shift from primary to secondary group relationships, internal personal to formal contractual relationships, co-operative to competitive form of relationships, etc.
- (c) Cultural Change :** It refers to changes in the culture of society, through discovery, invention, adoption and diffusion of new technology, cultural borrowing, etc.

(2) Factors Associated with Acceptance of Social Change

- (a) Need for Change :** Unless a change is recognized by the society as significant and important, the likelihood of its acceptance is less. The need for change must be perceived by the society as a felt need. To be accepted, the change must be perceived by society as contributing toward the achievement of goals.
- (b) Desirable Innovations :** Innovations, may be a technology or an idea must be relevant to the need for change and perceived as desirable by the society, bringing some benefit to it. The benefit may be in terms of more yield and income; reduction in cost, saving of time and labour, or better functioning of institutions and organizations in the society. Compatibility of the innovation with the culture of the society is an essential condition for its acceptance.
- (c) Proper Communication :** Social change cannot take place without communication. Communication methods adopted must be appropriate to the society. Communication should be timely and the methods and aids are to be skillfully used with sufficient credibility to be accepted by the society.
- (d) Patterns of Change :** In the process of social change, a system may attain following states of equilibrium. These are presented below.
 - (1) **Stable equilibrium :** occurs where there is almost no change in the structure or functioning of social system. In a completely isolated and traditional system the rate of change is almost zero. e.g a stable equilibrium.
 - (2) **Dynamic equilibrium** occurs when the rate of change in social system commensurate with the systemic ability to cope with it. Change occurs in a system in dynamic equilibrium, that allows the system to adapt it. In extension work it is always desirable to achieve a state of dynamic equilibrium for the client system.
 - (3) **Disequilibrium** occurs when the rate of change is too rapid or undesirable to permit the social system to adjust. The social disorganization that accompanies disequilibrium marks it as a painful and inefficient way for change to occur in a system.

While planning for change the above factors need proper consideration, in absence of which we may not receive desired results.

3.3 Glossary

Group : It is a unit of two or more people in reciprocal communication and interaction with each other.

Socialization : It is a process of inducting an individual into the social and cultural world to play his role as a member of society.

Social Stratification : It is the arrangement of individuals or groups of people into hierarchically arranged strata in a community.

Social Change : It involves alteration in the structure and function of society.

3.4 Summary

Rural Sociology is the scientific study of people living in rural areas and who are living by or are immediately dependent on agriculture. The rural people follow life style somewhat different from the urban people. The rural life is influenced by the rural environment. The group organizations and the modes of socialization are peculiar in rural areas. It is expected to develop greater understanding of the behaviour of rural people and rural society. The social interactions and the process of social change are important and serve as a guide and suggest practical programmes of reform in economic, social and cultural fields.

3.5 Exercise for Practice

Answer the following questions in 200 words each.

1. Define Rural Sociology and describe the characteristics of rural people with reference to urban people.
2. What is a human group? Give important classification of groups.
3. What are the elements associated with the structure and functions of the human society ?
4. State and explain the various factors associated with the acceptance of social change.

Unit 4 : Educational Psychology

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4.1 Introduction

Educational psychology is a systematic study of the development of an individual within the educational setting. Human behaviour can be understood, predicted and directed towards desired goals by applying the principles of educational psychology. From the time an individual is born until his death he continues to learn new things. Educational psychology studies an individual through the life stages as he acquires new knowledge. There are certain learning theories propounded by eminent psychologists. They have greater impact on the education of the people. All persons are not alike and hence it is necessary to understand the intellectual level of the persons before undertaking the educational programmes. All efforts are directed towards change in the behaviour of the persons in desired direction and it is imperative to study their attitudes, interest and decision making abilities.

After the study of this unit, you will be able to know and understand :

- λ Concept and meaning of educational psychology.
- λ Various learning theories and their impact on learning.
- λ Assessment of intelligence and factors affecting it.
- λ Role of attitudes and interest on behaviour.
- λ Decision making process.

4.2 Content

4.2.1 Concept of Educational Psychology

Educational psychology is one of the branches of applied psychology with the application of principles, techniques and other resources of psychology to the solution of the problems confronting the teacher. It is helpful to the teacher whose aim is the growth of the students towards defined objectives.

In the modern age there is increasing use of psychology in various spheres of life. Radio, newspapers and other information media are effectively used by producers for giving attractive advertisements in order to increase their sales. It has become a necessity to take into account the psychology of the industrial workers. To understand the students' unrest increasing reliance is placed on psychology. Now the doctors think it necessary to consider the mental state of their patients in order to cure them. There is great impact of psychology on the modern literature. There is increasing sale of the books on influencing people. All the above illustrations leads to the conclusion that there is increasing trend of placing more importance to human behaviour and studying it from the psychological point of view.

In old days psychology was considered to be the science of soul but afterwards it was found that it was difficult to observe the soul. It was not possible to experience the immortality of the soul and hence this definition of psychology was rejected. Then the psychologists defined psychology as a science of mind. But as it was found difficult to scientifically study the mind and this definition was also changed. Afterwards another definition considered psychology as a science of sensation. This

definition is more scientific, still the sensation is related to individual and could not be generalized and hence there was sense of incompleteness in this definition. While solving the difficulties in the above definitions the present day definition of psychology as a science of behaviour came in vogue. The study of the reflections of attitudes and feelings of human life in their behaviour is the target as it is possible to see it and experience it in reality. Experiments can be conducted on behaviour and measurements of these behaviour can be taken. The behaviour reflects internal thoughts and feelings of the individuals and therefore it can be said that the behaviour is a representative act of the feelings and thoughts of the individuals.

Human behaviour is considered as a response to either of two types of stimuli-internal stimuli also referred to by various other names as drives, emotions, motivation and so on, and the external stimuli acting via the sense organs. It means that the behaviour of an organism is not random but goal oriented. While studying the complex behaviour patterns one comes across terminology which refers to particular levels of behaviour and not to others. It is necessary to understand this terminology in making efforts towards altering the behaviour of the organisms.

Learning and psychology are closely related and if efforts are made to solve the problems in educational sphere with the help of psychology then there can be tremendous development in this sphere. The children are given education for altering their behaviour in desirable direction. But before imparting instructions the teacher should know the level of the learner so that he can start teaching from that level. It means that the principles of psychology also hold good in the field of education. For continuous development of the children and for developing their creative abilities, it is necessary for the teacher to know the psychological bases to education. The educational psychology helps in deciding the curriculum, teaching methods and other supporting programmes for training the future citizens of the nation. If expected results are not achieved then the educational psychologists would find out the deficiencies in the educational plan and would suggest measures to overcome these deficiencies.

In extension education the innovations are carried to the rural people. It is expected that the rural people should alter their farms, homes and villages by adopting

these innovations. In short as stated earlier it is an informal method of teaching rural people. The principles and contents of educational psychology are also applicable to the extension education with certain alterations. **The educational psychology mainly deals with the formal education but the extension education has to deal with the informal education to the rural people.** The educational psychology emphasis the educational changes in children while the extension education psychology emphasises the educational changes in rural people. The main emphasis in extension education is on utilizing the research findings in solving the problems of the rural people. This cannot be done mechanically by making physical and economical development of the people. The values and attitudes of rural people should also change in order to have permanent changes. The extension education psychology has to help in solving the problems such as, when all the facilities are available why a farmer does not adopt an innovation? When two groups in the village are at cross roads; what are their motivations in fighting with each other? The extension education psychology would try to answer many such questions.

After understanding the role of extension education psychology in extension work it is intended to discuss its scope. The main job of the extension worker is teaching and therefore the extension education psychology has to guide him in selecting appropriate learning experiences for the rural people. It has to equip him with the knowledge of learning principles and learning situations. This will enable the extension worker in becoming a good teacher to rural people.

The human behaviour, as stated earlier is always goal-oriented. There must be some drive for doing a particular action. The extension worker should select appropriate motives closely related with needs of the people. They should be shown the relation of the education imparted and its use in fulfilment of the motives. If extension education is not effective in fulfilment the motives of the people satisfactorily, then naturally such type of education will be of no use to the people, and they will stop participation in such educational programmes.

The intelligence of individuals varies. This should be properly understood by the extension worker. The extension worker should look with equal curiosity towards highly intelligent and less intelligent farmers. He should try to understand the reasons

for a particular type of behaviour, by knowing the level of intelligence of the farmers. Then he should try to activate the intelligence of these farmers.

There are differences in personalities of farmers. The reasons for these differences lies in the social development of the individuals. The socialization has deep effect on the personality of the farmer and therefore the extension worker should know the factors affecting socialization of the farmer.

Some of the above topics are discussed in the following pages with a view to helping the extension workers and the students of extension education in understanding and solving rural problems.

4.2.2 Learning Theories and their Impact

There are various learning theories formulated by scientists. The important theories along with their impact is discussed in the following pages.

1. Classical Conditioning

This theory is propounded by Russian physiologist Pavlov. This theory is on the results of experiments conducted on dog. The dog was kept in a soundproof room. A bell was sounded for a few seconds and immediately after, the dog was fed. This sequence of bell and food was repeated many times. Subsequently it was noticed that the dog began to salivate on hearing the bell and before the food arrived. The bell originally had no property of eliciting salivation but after it was compared with food on a number of occasions, it acquired the power to do so. This phenomenon whereby a natural response to a particular stimulus later comes to be elicited by an originally neutral stimulus is known as conditioning. Thus an individual or animal can be conditioned to a particular response. This theory is used in education in inculcating good working habits.

2. Instrumental Conditioning

This theory was formulated by skinner. He devised a problem box to be used with rat subjects. Inside a box was a bar mounted at a convenient height, the manipulation of the bar delivered a simple pellet of food into a tin tray inside the

box. A naive rat first introduced into the box would run here and there exploring its contents. However, after a time it may happen to press the bar accidentally causing a pellet of food to be delivered, where upon it would eat it. In the beginning the rat would not associate bar pressing with delivery of food. When the sequence of bar-pressing –food is repeated a number of times. Conditioning would be established and rat would continue to press the bar so long as it is hungry and the food is delivered regularly. This type of conditioning is known as instrumental conditioning because the occurrence of the to-be-conditioned response (bar pressing) is instrumental in procuring reinforcement. Thus an individual can be educated to act in a particular way. He can be trained in performing a particular job or running a machinery.

(3) Laws of Learning

Thorndike found out laws of learning which are commonly used in imparting education to animals and human beings.

- (a) Law of Exercise :** It states that the repetition of an action facilitates its future occurrence and its disuse over a period of time causes it to be forgotten. Many activities which are repeated every day become quite automatic after a time. Typing and driving a car are two examples of such skills developed to a high standard due to constant practice
- (b) Law of Frequency :** It states that the extent of facilitation varies directly with the number of repetitions. Due to this, emphasis is given on repeating the exercises assigned to the students.
- (c) Law of Regency :** It is postulated that the more recent an action, the greater its facilitation with exercise.
- (d) Law of Effect :** It is formulated that behaviour which was rewarded tended to persist and to be learned, whereas behaviour which was punished tended to be eliminated from the range of the organisms concerned.

The principles formulated in the theories of learning have for reaching significance in the educational field. Many educational and training programmes are based on the learning theories propounded by these scientists.

4.2.3 Intelligence and Factors Affecting Intelligence

Individuals differ in the ability to learn, to adjust to new situations, and manage things, persons, and ideas. This difference is attributed to the intelligence level of the individual. In general, the definition of intelligence formed by different scientists can be categorized in three groups. The first group emphasises the capacity to learn new things is the intelligence. The second group says that intelligence is the capacity of an individual to adjust with new situation. The third group emphasis the capacity of abstract thinking. If you closely observe the definitions of the three groups then you will find that these definitions are not contradictory to each other but they seem to be complimentary to each other. On the basis of the above discussion **intelligence can be defined as the capacity of solving the problems by using past experience, adjusting with new environment and capacity to learn new things and understanding abstract things by using symbols.**

The main purpose of the psychological tests in extension is to understand the difference between the farmers. If all the farmers would have been similar then there would be no problem of measuring this difference. But due to the difference between the farmers it has become necessary to measure their intelligence, personality and attitude differences. Since long, efforts are made to measure difference in individuals is in progress. Discussion between eminent scholars, Akbar-Birbal stories. Nana Phadnis stories etc. show in general the nature of the intelligence tests in olden days. But these tests were many times biased and therefore there was no guarantee of valid results.

Alfred Binet, a French Psychologist evolved tolerably good tests on intelligence. He worked on the task of discriminating between children who were really deficient in intelligence and those who were only lazy. He made up a set of questions for children of a certain age-group and ascertained, which questions out of the list could be answered by the largest number of them, mainly on the assumption that the largest proportion of any population would belong to the “average” category in intellectual abilities. In the previous tests there were no useful norms available for testing the difference between different age groups. By laborious testing of hundreds of subjects Binet had formulated tests for children from the age of 4 months to that of 14 years.

By asking questions appropriate to each age-group he evolved new concept of Mental Age (MA) which is indicative of the intellectual development of the individual. As length is measured in inches or centimeters, the intellectual development can be measured by Intelligence Quotient (I.Q.). Binet related the mental age with the chronological age (CA) of an individual and tried to indicate the extent to which an individual is intellectually developed at a particular chronological age. For instance if a child of 10 years old can do all the tests meant for the 12 years-old, then his mental age is 12. If he can only do the tests for the 8 year olds then his mental age is 8. However if he can perform successfully on all the tests meant for children aged 8 and also some of the tests intended for 9 and 10 year-olds his score in terms of MA will be more than 8 depending on the proportion of tests for the higher age groups that he is able to perform correctly. Further, Stern and Terman developed the concept of I.Q. which can be calculated from the following formula.

$$\text{I.Q.} = \frac{\text{MA}}{\text{CA}} \times 100$$

Where : I.Q. = Intelligent Quotient,

M.A. = Mental age and

C.A. = Chronological age.

Many of Binet's original tests have undergone change but they provided the first workable basis for testing the intelligence and therefore represent an important milestone in the history of psychology.

The individual in any community range from idiots to very brilliant level of intelligence and farming communities are no exception to this. If the number of people falling into each I.Q. level are plotted against frequency the resulting curve would be a normal or bell-shaped curve. Most of the people in any community would have average IQs ranging between 91 to 111. The individuals having more than 150 IQ are brilliant or genius and those who have less than 50 IQ are feeble minded.

People falling under particular ranges of IQs are classified under specific categories :

Sr.No.	Categories of Person	I.Q.	Frequency Percentage
1	Genius	171 and above	0.2
2	Very Brilliant	161 to 170	0.3
3	Brilliant	151 to 160	0.6
4	Very Superior	141 to 150	1.4
5	Superior	131 to 140	3.5
6	Very Bright	121 to 130	9.0
7	Bright	111 to 120	15.0
8	Superior Average	101 to 110	20.0
9	Inferior Average	91 to 100	20.0
10	Dull	81 to 90	15.0
11	Inferior Dull	71 to 80	9.0
12	Mentally defective	66 to 70	2.2
13	Feeble Minded	46 to 65	3.1
14	Imbeciles	25 to 45	0.6
15	Idiots	25 and below	0.1

The categories on the basis of the IQ are not rigid compartments and therefore it has undergone certain changes. Only on the basis of IQ it cannot be summarised that the person is genius. His other characteristics will have to be given serious thoughts. If a person has 108 I.Q. and another person has 110 I.Q., then it is difficult to say that they differ a large extent in intellectual abilities. So the classification of intelligence given above should be used as a guide lines. There can be slight changes in the classification but in general it should be understood that the distribution of intelligence in any population follows a normal or bell shaped curve.

As stated earlier the extension teaching should start from the level of the farmers. The farmers of different intellectual capacities will be frustrated if they are taught by only one teaching method. The intelligent farmer will feel bored while the feeble minded farmer will not be able to understand anything. It will be better, if the farmers

are categorized with the help of intelligence or other psychological tests and as per their capacities the lessons are planned. One such categorization is the adoption categories. The farmers are categorized here on the basis of their innovativeness in five categories namely **innovators, early adopters, early majority, late majority and laggards.**

It is proved that human intelligence is a very powerful force when applied effectively to issues of importance. The face of the world is changing due to highly disciplined application of human intelligence. The green revolution is a result of the properly activated human mind to agriculture and the animal sciences. It is now necessary to harness the intelligence of villagers so that they can grow two grains of rice where they grew one. This adoption of farm innovations is within the reach of even the illiterate villager. It should not be mistaken that because the villagers are illiterate they are not intelligent. Intelligence is equally distributed among all communities, all occupations and all nations. The intelligence of individuals varies as stated earlier but it varies according to the laws of random chance and not according to nationality, occupation or other such categories.

The intelligence of the villager averages as high as the intelligence of the student, government servant or the extension worker. It is the duty of the extension worker to activate this intelligence and help the villagers in working out sound ways of increasing their production. Singh and Supe after careful analysis worked out a **Rationality Quotient (RO) for measuring the rational behaviour of the farmers.** The main emphasis in this quotient is on measuring the farmers justifications in selection of most efficient means, from among the available alternatives on the basis of scientific criteria for achieving maximum economic profits in farming. Such instruments would help in knowing the present capacity of different farmers in analysing their problems and formulating solutions. Every farmer is an individual entity which has its own characteristics, its own problems and its own potentialities. The extension worker should help these farmers by developing their analytical ability for making rational decisions. He can do this by providing technical information as per needs of different farmers and help them in using that technical information in a well-organized programme on his farm. If the intelligence of the villagers is activated

then it will be a fundamental source of improved agricultural production. This activated intelligence must be coupled with human activities, in such a way that those activities being more intelligently guided, will be more effective and more productive. One of the objectives of extension education as stated by Dey is “destination man”. The extension worker should help this “man” in deciding what is good for him rather than taking decisions for him.

4.2.4 Behaviour Role of Attitude and Interest

Behaviour of an individual can be grouped under two categories namely explicit or overt behaviour and implicit or covert behaviour. The attitude and interest come under the implicit behaviour, and govern the explicit behaviour to some extent. Attitude is a positive or negative feeling towards an object or situation. The factors that determine attitudes are environment, experience and education of individual.

- (a) Environment are the things around us. The important aspects of the environment are home, school, workplace, media utilization (mainly television news papers, magazines, radio, movies etc.) cultural background, religious background, traditions and beliefs, social environment and political environment. It is observed that in good environment the efficiency of an individual increases while in a poor environment the efficiency is reduced.
- (b) Experience is the time an individual works on a particular job. As per the experience of a person his behaviour gets changed. If our experience with a person is good then our attitude towards him is also good and vice versa.
- (c) Education is the production of desirable changes in the behaviour of person. The education may be formal or informal but it has a direct effect on your attitude and subsequently on your behaviour.

In addition to the attitudes, the interest of a person plays a vital role in his behaviour. Interest is liking developed by an individual towards some gainful object. Due to Interest an individual tries to learn new ideas and seek additional information about the object. In this he tries to know what it is, how it works and what are its potentialities.

Building Positive Attitude

The attitudes formed in the childhood continue to be with us throughout our life. So care has to be taken to inculcate good and positive attitudes in children. It does not mean that the attitudes cannot be changed at later stage. But it requires lot of efforts. For building positive attitude one should know them, one should have strong desire to change and one should work towards this change with firm determination.

The positive attitudes can be build up by following the four steps mentioned below as suggested by Shiv Khera a famous leading thinker and thinking leader of today.

- (1) Change focus, look for the positive – we should look for good things in life and not only the deficiencies. Many times we are so accustomed and engrossed to look for the weaknesses and deficiencies of a person or situation then we cannot see the real image.
- (2) Make a habit of doing it now-we try to postpone the things which we do not like or which we find complex or difficult. If important things are postponed then we are deprived of its previlages and many times it affect our career. The completed work gives us happiness and confidence and the incomplete work discourages us in life. Do not run from the situation, but boldly face it.
- (3) Develop an attitude of gratitude – Try to find out the good points out of the situation you face. If you only count the problems then you cannot reach your destination. Thank god for what he has given you and try to use those things for your success. Many people are engrossed in describing their deficiencies and ignoring the good things they possess.
- (4) Get into a continuous education programme – We think that once we acquire formal education in schools and colleges, our job is over. In fact our education starts after leaving the formal institutions. We face a lot of problems and situations in which we have to take decisions. This requires continuous education and learning throughout the life of an individual.

4.2.5 Decision Making

Researchers have developed varying models of decision making. But the essential elements and conditions in the process are almost the same. The decision making involves a decision maker, an environment in which the decision maker must operate, a set of actions available and a set of goals to be accomplished.

Decision making may vary from a simple routine decision to complex and difficult decision. These decisions can be classified as programmed decisions and non programmed decisions. The programmed decisions can be thought of as repetitive and routine decisions. These decisions have a definite procedure of handling and do not have to be treated a new each time they reoccur. For instance hoeing, harrowing, weeding and such other operations for which the farmer takes decisions by habit. These habits are internalized as they are recorded in the central nervous system of the individual. The non-programmed decisions are mostly novel, unstructural and consequential. For instance, use of new seed, new fertilizers, new implements. Such decisions require acquisition of knowledge of the forces that influence decisions and of the processes through which they reach. These decisions are usually strategic, and non-routine and form the essential part of planning activity which is concerned with the long run position of the enterprise.

Different approaches are required to tackle these two types of decisions. The programmed decisions are readily adaptable to the problem solving approach. This approach involves three steps namely (a) Definition of the problem and collection of all relevant facts. (b) Stating all possible courses of action and possible results and (c) Weighing the collected information and deciding the proper course of action. In non-programmed decisions more lengthy and complex processes of altering, exploring and analyzing precede the final moment of choice. It is because of this nature of decision making that a somewhat different approach is required for taking these decisions the skill of an individual is really tested while taking these decisions as it shows his problem solving capacity. As pointed out by Van den Ban, the change agents should help their clientele in taking proper decisions to achieve their objectives. At the same time the change agent should be cautious in not taking the decisions of the clientele but only in helping them in taking proper decisions.

4.3 Glossary

Educational Psychology : It is a systematic study of an individual within the educational setting.

Classical Conditioning : It is a process whereby a natural response to a particular stimulus later comes to be elicited by an originally neutral stimulus.

Instrumental Conditioning : It is a process in which the occurrence of the to be conditioned response is instrumental in procuring reinforcement.

Law of Exercise : It states that the repetition of an action facilitates its future occurrence.

Law of Frequency : It states that the extent of facilitation varies directly with the number of repetitions.

Law of Regency : It states that more recent action facilitates its exercise

Law of Effect : It states that the behaviour which in rewarded persists over time

Intelligence : It is the capacity of solving the problems by using past experience and adjusting with new environment.

Decision Making : It involves a decision maker, an environment in which the decision maker has to operate, a set of actions available and a set of goals to be attained.

4.4 Summary

Educational Psychology plays important role in education. There are many theories of learning propounded by eminent scientists which has impact on the educational methods and the system of learning. The theory of Pavlov is known as classical conditioning and the theory of skinner is known as instrumental conditioning. They are important in explaining the learning systems. Further the laws of Thorndike explain the principles underlying the various educational methods. Intelligence differentiates the learners as per their capacity to learn and adjust with environment. The decision making is vital in every ones life. Good decisions taken at appropriate time are rewarded. The change agent is expected to help the people in taking appropriate decisions.

4.5 Exercise for Practice

Answer the following questions in 200 words each.

1. Explain the role of educational psychology in extension education.
2. State and explain the laws of learning.
3. What is intelligence? What are the factors associated with intelligence ?
4. How the attitudes and interests affect the behaviour of an individual ?

Unit 5 : Programme Planning

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5.1 Introduction

Planning a program is a procedure of working with the people in an effort to recognize problems and to determine possible solutions. This is an effort to meet the needs, interests and wants of the people. In program planning we are required to know where we are now? And where we want to go? So that we may better judge what to do and how to do it? It gives meaning to action. It prepares the basis for a course of action.

After the study of this unit, you will be able to know and understand :

- λ Programme planning procedure.
- λ Professional abilities of the planners.
- λ Role of extension worker
- λ Participatory research appraisal.
- λ Importance and steps involved in evaluation.
- λ Criteria for effective evaluation.

5.2 Content

5.2.1 Programme Planning

Programme planning is a procedure of working with the people in an effort to recognize unsatisfactory situations or problems, and to determine possible solutions, or objectives and goals. This is a conscious effort to meet the needs, interests and wants of the people for whom the programme is intended. The elements of people's needs becomes a central concern of planners for rural development.

According to Kelsey and Hearne (1949) "an extension programme is a statement of situation, objectives, problems and solutions."

USDA (1956) defined " an extension programme, which is arrived in cooperation with the local people and the extension staff and includes a statement of: (1) the situation in which the people are located, (2) the problems that are a part of the local situation, (3) the objectives and goals of the local people in relation to those problems; and (4) the recommendations or solutions to reach these objectives on a long term basis (may be several years) or on a short term basis (may be one year or less).

Lawrence (1965) says that "an extension programme is the sum total of the activities and understanding of a Country Extension Services. It includes (1) the programme planning process (2) written programme statements (3) Plan of work (4) programme execution (5) results and (6) evaluation"

In drawing up a programme, the following questions give key-orientation and justification : What needs do people have? How can needs be identified? What plans of priority should be set up for meeting the people's needs? What resources are necessary to meet the people needs? How should resources be organized and directed to help people to meet their needs ? In programme planning, we are required to look where we are now and where we ought to go, so that we may better judge what to do and how to do it? It gives meaning to action. It prepares the basis for a course of future action. It is an intentional effort carefully designed to attain certain specific and predetermined goals assumed to be important.

(a) Components of programme planning

The components of programme planning are complex. These are : People – their needs, their interest, useful technology, the educational process, analyzing situations, making decisions about what should be done, determining action, projecting the desired shape of things into the future, etc. It involves the study and use of facts and principles, knowledge, imagination and reasoning ability. Often it requires a mastery of skills and techniques of research, the ability to synthesise facts and value judgements in a process of sound decision-making about the objectives which the programme seek to attain.

(b) Principles of programme planning

1. *Clear and significant objectives* : Programme objectives designate directions of movement. Since that is so, objectives becomes the focus of primary material and human resources for attaining change. Maximum progress may be possible only when objectives are clear and full commitment of resources is made in achieving them, and effective use is made of the resources. A good programme objective is one that provides possible direction for large number of people to move some distance in the direction in which they want and need to go.
2. *Planning at the top and the lower level* : To achieve the broad purpose of Community Development, requires Planning at the top and the lower level, i.e. at national, state, district, block and village levels. If the statement of purposes at higher levels is to be realistic and useful in guiding the programme at lower levels, it must be reformulated at each lower level to align it with varying situations.
3. *Crucial questions taken into considerations* : A number of crucial questions about programme planning need to be asked and their answers taken into account in the planning process. Their proper answer will improve the preciseness with which programmes are developed. These questions may be : To whom and to how many people is the programme important ? In what way is the programme significant to the people - economically, socially, aesthetically or morally? What is the relative importance of the programme objectives?? Who thinks the

programme is important, i.e. the nation, state, block or village? Who arrived at programme objectives? On what amounts is the programme based? Does the programmes reflect the significant needs and interests of large number of people? Who is acquainted with the programme and its purpose? How clearly conceived and understood is the programme by those who are to participate in its execution? What would be the likely consequences in next one year, five years or ten years, if work on certain parts of the programme is not carried out?

4. *General agreement among various levels* - For planning an effective programme, the village level workers and those at higher levels need to agree on three points: (a) a basic philosophy regarding programme development, (b) a clear policy that reflects the basic philosophy, (c) a workable procedure that gives general directions but provides ample scope for the adjustments needed to meet local situations. Such questions may serve as guidelines : What is relative importance of programme development as a step in the rural development process? Who should participate in the programme development and in what way? How much time should be allotted to the task of planning? In which villages and blocks or districts should such programmes be developed? Upon what kinds, and amounts, of factual information should the programme be based, and how should this be collected ? To what extent should procedure provide for participation of the people of the village and block level? Should the different phases of Block Programme be organized into a single overall unified programme? What will be the role of the technical specialist in programme development? To what extent should village leaders be involved in the programme and how should they be involved ?
5. *Programmes should be based on adequate and current facts pertaining to local, regional and national situations* : Facts about the local situation and others affecting it are the foundation upon which the official and non-official bodies at various levels should build to carry out an effective programme. These facts should reflect local needs and the enlightened desires of the people. They show not only what people think they want but also what is best for them. Facts about the local situations help to identify problems and needs with which the people

are concerned, by pointing out the gaps between what is and what should be, by indicating shortage and drawing attention to undesirable trends. To have adequate facts, data on the following four categories need to be obtained; (a) current trends and outlook, (b) the people themselves-their needs, interests, knowledge, social organization etc, (c) physical factors about agriculture, industry, health sanitation, etc. and (d) community problems – communication, education etc.

6. *Identification of needs* : Out of the large number of needs a small but important and significant needs should be identified and receive major attention.
7. *Involvement of local leaders* : In order to obtain participation of the people the local leaders should be involved at various stages of the programme planning process.
8. *Long range programs are more effective* : The important needs of people can not be met in the short period of one or two years. Changing what people believe, what they do, is a slow process. Long years constant efforts is usually needed to accomplish important community development objectives. Care should be taken in the planning process to provide assurance that the short period interests of people are also their long term advantages.
9. *Holistic approach* : An integrated approach to problems of farm, home and the community is more sound and effective. The primary way to achieve coordination and integration in programmes is through common understanding among officials. This can be attained through participation in appropriate phases of the planning process.
10. *Cultural values are important* : Cultural values and the social system must be taken into account Cultural values reflect what people generally think is important. The social system tends to maintain adherence to the scale of established values. In traditional social system the prevailing cultural values tend to serve as forces working against social and economic reform. Even in advanced societies they have influence. So people's values and their social system must be understood and taken into account by the planners of rural development programmes.

Programme projection is long range programme planning. It involves the logical analysis of all available information and the setting up of long range goals and objectives for the people to work. According to Nieder Frank (1960) “Programme projection means improved programme planning by looking more broadly, looking more deeply, looking longer, or ahead and with the involvement of more people.” Thus the programme projection is an expanded concept of extension programme planning. The major objectives of programme projection is enlisted in the Extension Service Review (1956) are :

- (1) Helping rural people to better apprise and understand the adjustment which they should make in view of the rapidly developing agricultural technology, thereby to improve their standards of farming and living.
- (2) Developing, with local people, significant long-range programmes designed to meet the interests, needs and major problems of the area.
- (3) Helping extension workers to reorient and redirect their educational programmes and service and make efforts in the light of what the farm people want.

5.2.2 Professional Abilities of Planners

Planning effective programmes requires a number of high level professional skills. Needed abilities include understanding and skill in at least the following areas of competency.

1. Understanding of the nature and role of the extension organization. This includes the development, present scope, philosophy and objectives of the organization, set up and the role of various categories of personnel at various levels of hierarchy need to understood properly. The planner should also know the responsibility and opportunity of the agency in the development process of the nation.
2. Knowledge and understanding of technology related to subjects with which the programme is to deal. Adequate knowledge and understanding of technology appropriate to one’s professional job requires the thoroughness of knowledge acquaintance with current technology, knowledge of reliable sources of technology and understanding of how technology relates specific problems. This requires continuous study on the part of the planner.

3. Ability to clarify objectives of a programme and state them so that they are useful in guiding and execution. This task includes an understanding of the nature of purpose and the role of objectives in educational work. They should know the sources of the objectives, their level and interrelation. He needs to be conversant in the skill of stating and using the objectives in guiding the educational activities.
4. Ability to organize people and things. This requires an understanding of the nature and function of organization. Principles of organization, techniques of organization and the nature and role of co-ordination and integration in programmes.
5. Skill in seeing the relationship between principles and practices. The ability to related principles and practices involves the knowledge and understanding of the nature and role of principles related to development, and the techniques and procedure for carrying out programme. Principles relate to why and techniques relate to how and one must know both for effective performance.
6. Skill at enquiry is need by the planner. It helps him to identify the problems, discover focal points of concern, determine alternative solutions and evaluate possible solutions and make decision to arrive at conclusion.
7. Skill in human relations is another important quality needed in the planner. The planner has to work with people in general and local leaders, co-workers and those in the organization in particular. His success depends on how he get along with others. One may know the technical answer but unless one knows how to work with people one would not know how to get technical answers translated into better practices.

The above abilities can be developed by an individual to become good planner.

5.2.3 Role of Extension Agents

Extension agents include extension workers working in the extension field. We can very safely take into account the agencies like Village Level Workers (VLW), the Agricultural Extension Officers (AEO) and Block Development Officers (BDO), or and Subject Matter Specialist (SMS). Extension work is mostly determined by

the efforts of these agencies. The nature of work in these agencies is different, due to working at different levels, while the aim is ultimately the same i.e. the development of the rural community in all aspects.

The extension worker plays an important and necessary role in the extension field. Extension work is not limited to the rural areas alone, but extends to urban side as well, although more emphasis is laid on the development of the Rural Sector. Even in some sectors, the nature of work is multipurpose. The extension worker is bound to touch upon all aspects of rural life. He should have a comprehensive understanding of the village people and their problems. He should participate in sorrows and joys of the villagers and must develop a close contact with the village people. He is to win the willing and enthusiastic co-operation of the people and the work is to start with the local felt needs. The work at the lower most level carried out in the village by V.L.W.'s is the foundation of rural uplift, for it is they who are in direct contact with village people.

The extension worker is to choose his own way of living in such a manner as to adjust himself to the society existing around him. He is to represent the villager's customs, traditions and ways of life and create in them the spirit for the real achievement. He is to be above performing the lowest annual work in the village or taking an order. He must be a friend to the villagers and help them in all situations and even in awkward circumstances.

Keeping in view the multipurpose nature of his work, the extension worker's activities and role in the various aspects of village life may be described as follows:

1. He has to acquaint himself with all the families in the village and learn their problems, needs and capabilities. For this, he must survey the entire village, its people and their resources. He "helps people who help themselves" by being willing to learn from the people, willing to "show how to do" through actual participation, by working with all classes, castes and creeds, by getting village people to participate in developing a programme, working on the programme and in taking credit for the programme. He helps them by recognizing that planning with the people is a continuous and important part of extension work.

2. He should use as many methods of extension as are necessary, because experience has shown that extension workers who use more methods of extension are more successful. The use of all practical methods of teaching requires careful planning.
3. He should give the villagers every chance to work in co-operative group action. The villagers should be encouraged to have discussions because as a village discussion group grows and gains confidence it will naturally seek to become a village extension group. The extension worker must, in the beginning, give leadership to the group.
4. He has to improve the village life and surroundings and create the conditions for farmers to become active members of the public, socially, economically and politically. He is also responsible for making the villagers feel that he is a real partner in village affairs and should make his help and co-operation needed and valued in every village activity. The field of the extension worker is very wide. He has to carry the teachings and discoveries from the institutions, experimental and research stations in the country, or elsewhere to the villages to help the farmers in their business of farming, cattle raising and home management. He is the man to raise the levels of living of the villagers and provide a more stable base for economic and mental security, other than the directives of increasing the yields, and improvement of the personal and village wealth.
5. He has to carry to rural masses, the basic knowledge of improved methods of Agriculture, Animal Husbandry, Home management etc. which will enable them to increase their agricultural production per acre, per animal and also improve their standard of living.
6. He has to help villagers in crop and livestock raising so that their income is increased. He has to help the rural masses to appreciate the opportunities, duties and privileges of living in an organized way in the village.
7. He has to raise the whole standard of rural life by promoting social, cultural and intellectual activities in the village. He has to bring to the rural people the

knowledge of conditions prevailing in the progressive countries.

8. He has to make the villagers intelligent, self-reliant and independent citizens who will love their homes and their country. He has to take the problems of the villagers to scientific institutions for the solution.
9. He has to change the attitude, knowledge and skill of the villagers. He has to bring about a psychological change in the minds of the village people to prepare them to adopt new ways of life.

Qualities of an Extension Worker

To play his role successfully, the extension worker should possess the following qualities.

1. He must have a rural background, as far as possible, coming from a cultivator's family and have some experience of working with village people successfully. We mention here he must be a villager because the majority of extension workers coming from urban areas have difficulty in adjusting to the villages.
2. He should be acquainted with the nature of problems and the cultural background, otherwise there are chances that the farmers may not like him and he may face with failure in playing his role.
3. He must have adjustability in village circumstances. He must have a thorough knowledge of the subjects with which he is concerned and be able to give correct replies to any questions asked by the villagers. In case he does not have the answers, he should be resourceful enough to find it out and convey it to them.
4. He must be honest, sincere and hard-working and have a high general intelligence. He must have self-confidence and good judgement.
5. He should be sympathetic to and share in the joys and sorrows of the villagers. He should be a sincere worker and not a show-off. He should have the firm determination to achieve his goal and direct all his efforts in that direction.
6. He should always search out new methods for early and easier achievement of his targets. He should be prompt and able to influence the villagers in a positive way. He should have a burning enthusiasm to speed up change and progress by his activity.

7. He should have the vision to frame future plans and programmes for the development of the village. He should be resourceful enough to satisfy the village needs by obtaining the assistance of the various Development Departments and Agencies responsible for village development.
8. He should be courageous, hard –working and seek co-operation in meeting difficult situations. He should be humble, polite and friendly towards the villagers. He should have a cool temperament. He should have a self helpness nature.
9. He should listen to others, respect their opinions and think over their problems and suggestions carefully. He should hold the ideal of “Simple living and high thinking”. His attitude should be that of service and helpfulness.
10. He should be able to guide the villagers and work through their leaders. He should be well acquainted with the ways and means of teaching according to new methods and also be able to make use of audio-video aids.
11. While talking to villagers, he should let others, do most of the talking and enter into conversation only when others seems willing to hear him. He should be friendly and speak slowly, taking care to be accurate in his statements. He should always be in search of new ideas and techniques. He should read the available literature and approach the subject specialists, research workers and others to acquaint himself with up-to-date ideas and new ways of solving the villagers problems.
12. He should search for the kind of organization that encourages growth of leadership ability, promotes the sense of community. He must accept a role of humbleness and be prepared to seek his triumphs in the lives of others. He is a cultivator of the art of applied patience. His motto should be “Suggest, wait and act” when the group is ready.

5.2.4 Participatory Approach

Technical Planning of extension programme continues to be highly centralized. The standardized recommendations, evolved under controlled condition at research station, are passed on to the farmers over a wide area through available network of

extension system. Along with the broad guidelines, many of the technological recommendations are also finalized and communicated from head quarters without active participation of the users in planning process. Due to this, most of the field staff has become used to the top-down approach that they tend to shirk alternative ways of planning. Also a vast majority of them do not possess the required skill to develop extension plans in participation with farmers.

In past top down approach had considerable success in irrigated areas where profitability of new technology with farmers had been limited. The above approach had however resulted in limited success in each field areas due to large heterogeneity and complexity in the farming system. It is also being increasingly recognized that such areas of wealth of indigenous technical knowledge is available which is constantly being upgraded through an internal research process carried out by farmers themselves to meet the changing scenario in rural areas. Hence for such areas farmers participatory approach is crucial not only to evolve relevant programmes but also to make the best use of the available indigenous knowledge.

Similarly the actual needs of perceptions and aspirations of farmers for whom the programmes are to be implemented were rarely taken in to account. Therefore the Participatory Rural Appraisal (PRA) is being tried out.

PRA is a method for quick appraisal of the resources in the village with the assistance of the villagers themselves.

It helps to assess the options of how to utilize these resources for further development, to rank priorities as the villagers see them, to record all the information, and prepare a plan of action. It is a very flexible approach to make use of the varying situations. It can be used to plan, execute, monitor and evaluate programmes. In PRA the information which people require is given to them so that they can suggest their own plans for solving their problems. The information collected can be cross checked with the group for reliability and authenticity.

For effective PRA the organizers must have faith in the capacity of local communities, be willing to generate debate among local people, they should talk less and be compulsive listeners only when necessary and they should allow the local leaders to take active part. The outsiders are only facilitators.

Participatory Rural Appraisal Technique

1. *Mapping of Local Resources* : This includes social mapping and resources mapping. The opportunities and problems can also be discussed on the basis of mapping.
2. *Transect* : Agro ecological land use, Soil conditions, Crop patterns, Live stock, Fisheries, etc.
3. *Seasonal Calendar* : It shows the main activities, problems and opportunities throughout the annual cycle in diagrammatic form. It helps in identifying the months of greatest difficulty and vulnerability or other variations which have an impact of people's lives.
4. *Time trends* : In time trends quantitative changes over time of variables, such as yield, area under crops, live stock, population, horticultural crops, forestry, interest rates on loans, etc.
5. *Time lines* : Presents overview of the key historical events in community and their importance.
6. *Mobility Map* : Shows the pattern of social mobility for different sections of community for different activities.
7. *Ranking* : Ranking includes preference as well as matrix ranking. This helps in fixing the priorities in problem solving.
8. *Livelihood Analysis* : These diagrams are used to help and interpret the behaviours, decision and cropping strategies of household with different socio-economic characteristics.
9. *Venn Diagram* : A Venn Diagram shows the kind of communication between the villagers and different agencies.
10. *Workshop* : It brings the people and team members together and priorities are discussed and decided for action. The workshop may be partly informal, partly structured, optimize the use of time in relation to efficiency and productivity.

Participatory Rural Appraisal includes the following four steps

1. *Introduction about PRA* : Meet the village community and explain the purpose of PRA.

2. *Village Tour* : With the key local leaders to identify soil type, water resources, crops grown, etc.
3. *Introduction of Team and details of PRA group exercise* : The following are the aspects involved in this exercise.

The Exercise includes (a) Drawing a sketch map of the village, locating the facilities. (b) Mapping of Resources. (c) Plotting of reasonability (d) Historic Profile of the village. (e) Time allocation for different activities. (f) Village transect. (g) Problems cause analysis. (h) Priority Ranking (i) Village integrated resource management plan.

4. Summary of the PRA at the end of each exercise a villager should be asked to resummarise what the diagram conveys and the important implications on it.

Participation of as many people as possible is essential for successful PRA. The Government agencies, NGO and community groups can work together towards the common goal of land and water management through participatory planning. It can help to raise the agricultural production and living standard of village people. To ensure the participation of women, separate PRA can be organized. Youth and school children's involvement after school or holidays makes the exercise very fruitful. For weaker section separate PRA can be conducted.

5.2.5 Programme Evaluation

The word **evaluation** has its origin in the Latin word, valere to be strong, valiant. Its dictionary meaning is : the determination of the value, the strength or worth of something; an appraisal' an estimate of the force of or the making of a judgement of something. More specific to the topic of this Chapter are the definitions given by persons involved in rural development and the assessment of its results. While some of their definitions refer specifically to the assessment of the results of the programmes of rural extension, they can also be applied to the training aspect of such programmes. *Some of these definitions are :*

- λ A process which enables the administrator to describe the effects of his programmes and thereby make progressive adjustments in order to reach his goal more effectively.

- λ An effort to learn what changes take place during and after an action programme and what part of these changes can be attributed to the programme.
- λ The process of systematically drawing upon experience as a means of making future efforts more effective.
- λ Measuring performance against a predetermined goal.
- λ Comparison of the situation before and after a development programme has operated within it for a predetermined period.

In extension education, the term evaluation grew out of a demand for school educators to work out ways of assessing their results. The term evaluation was suggested, rather than the term measurement, since it was felt that the latter implied an assessment more exact than was possible in education.

In every day use, the term evaluation has different meanings for different people and programmes, since it is used in a wide variety of contexts. The process of evaluation is however, truly a common happening. It is resorted to when choices are made in food or clothing. When personal likes and dislikes are expressed with regard to such experience as reading a book or listening to a talk; or whenever a conscious effort is made to assess systematically the achievement of a set objective.

There are different degrees of accuracy in evaluation depending on what is to be evaluated. Expressing an opinion, e.g. with regard to the satisfaction derived from a meal, calls for less accuracy than the assessment of the efficiency of Village level Worker trainees. The greater the importance ascribed to the judgements made and to what is to be judged. The greater would be the exactness and accuracy demanded from evaluation. Any individual concerned with the improving personal performance subjects himself to self evaluation, for individual efficiency is closely related to how critically and thoroughly a person analyse his own performance. Although it is an effective form of evaluation, self evaluation is limited largely to the individual worker with its scope restricted to the individual's range of experience. Progress reports, e.g. made by administrators and others who are in charge of Training Centers, who are participating in action programmes or who are responsible for their guidance indicate failure, success and guidance for future planning. Too often such reports are vague, and lack objectivity, so that another person assigned to assess

the results of the programme would probably not arrive at the same conclusions. The need, therefore is often, but for a greater application of scientific method in evaluation with objectivity as the essential goal, so when using the same techniques with equal competence, experts come out with the same results. The term evaluation in this sense is a relatively new one as applied to the field of rural development and the training of personnel for these programmes. It is important that among professionals and allied workers the use of this term, which has hitherto been so widely and loosely used is restricted to a process which satisfies scientific criteria. This means that evaluation is distinguished from all forms of assessment that take the form of one man's judgement on the success or failure of an undertaking, be it the operation of a training programme for Community Development or that of a block even though his judgement is wise and sound.

Specifically the evaluation of training programme refers to the scientific process of assessment of the changes that have taken place in the attitudes, knowledge and skill among trainees, teachers and all other participants in the programme, or in the effects that have resulted from the operation of the programme. These changes will be in terms of specified goals for all participants in the programme and for the total programme itself. e.g. in connection with training programmes it is well to remember that evaluation is an essential segment of the educational cycle that starts with planning work to achieve these objectives, and finally calls for evaluation. Then of course the cycle recommences with planning based on the results of the evaluation. Plan, act, evaluate is essential component of any programme or project.

Major Objectives and Purpose of Evaluation

The major objectives of evaluation may be stated as follows.

1. To help in the understanding and study of factors which make for success or failure; those that enhance and those which retard progress towards the goals set up in the programme.
2. To induce workers to examine their objectives critically and to help workers make clear the purpose of programmes. Evaluation helps in complex clarification of purpose for activity.

3. To make workers examine the entire programme in terms of their objectives and to make workers examine strong and weak points of their programme and guard against considering all details as of equal importance.
4. To help workers limit objectives to those they can actually accomplish and to increase confidence in the programme, both in the workers and in the rural people.
5. To help workers determine how far their plans have progressed and to what extent their objectives have been achieved, so that they may gain psychological satisfaction, confidence and security.
6. To compare the value of achievements of the programme with costs and to facilitate the presentation of results of public support or withdrawal. Evaluation thus serves a useful purpose in public relations which provides a means for testing methods, approaches and techniques used in programmes.

Criteria for Effective Evaluation

There are certain criteria in the absence of which the evaluation of a programme of training and development cannot be effectively carried out. These are :

1. **Clearly defined objectives :** Objectives are the ends against which movement or achievement can be assessed. Unless this end point is clearly defined, one cannot hope for accurate evaluation, nor for satisfactory evidence showing the extent to which the programme is accomplishing its aims. Vague, overall objectives must, therefore, be broken down into specific and clearly defined ones.
2. **Valid instruments of measurements :** The devices or instruments used for measuring the extent to which a programme is accomplishing its aims must be valid. They must in other words, be capable of measuring what is to be measured; they must actually give evidence of and register movement towards the objectives. This presupposes the fixing of criteria to be used in evaluation. These criteria are actually indicators of change which indicate movement towards objectives. The instrument or device used for the purpose of evaluation must accurately measure achievements in terms of the criteria or indicators of change.

Thus, if the objective is the adoption of sowing improved wheat seed to the point of 'situation' in village, the criterion of measurement, or indicator of progress towards this objectives is the adoption of this practice by farmers, and the instrument of measurement can be the number of farmers who sow improved wheat, as against the total number of farmers who grow wheat in the village. The measurement can also be the acreage under improved wheat expressed as a percentage of the total area under wheat.

3. **Objectivity** : This refers to freedom from bias, personal prejudice, idiosyncrasies and purely individual judgement. A good evaluation must be a degree of objectivity. This is one of the cardinal aims in evaluation if it is to be scientific and accurate. External agencies are not involved in the programme or even a part of it, are therefore often called in to evaluate a programme because of their objectivity.
4. **Reliability** : As mentioned earlier, there is a need, not for more evaluation, but for greater use of the scientific method in evaluation, so that different experts using the same techniques with equal competence will arrive at the same results. This is what is meant by reliability and without it effective evaluation is not achieved.
5. **Accurate evidence of change** : To the effective, an evaluation should bring to light any change that indicates achievement of the programme. If, as a result of the programme, change has been achieved, the evaluation should make it evident. This may require two points of appraisal – an earlier and a later point- so as to indicate where the shift has been made. Thus in evaluating the effectiveness of teaching as shown in the transfer of knowledge of green manuring to a trainee, it is necessary to first ascertain the extent of the trainees previous knowledge with regard to this subject. Otherwise, the evaluation will not be accurate.
6. **Practicability** : This criterion considers the resources available for evaluation and what can be done within the limitations of these resources. Time and money available are perhaps the most important factors in this connection. Urgency may require evaluation within a short time. The evaluator may therefore, be forced to take short cuts in the process and consequently come out with an

evaluation that while serving its purpose is not as precise and accurate have been possible. The first applies when financial resources are limited. Evaluators, sometimes have to compromise between very accurate and precise, but which meet the specific need and can be executed within the limitations of the available resources.

Steps in Evaluation

The following are the major steps in an effective programme of evaluation.

- 1. Formulate overall objectives :** The main goals and objectives should be at regular intervals, depending on the type of evaluation to be made and the programme. In village development programmes, annual and seasonal objectives are set up. In a training programme, objectives for each teaching activity or session are established. These may be short term objectives. There are also long term objectives which project over a period of several years. Often, too many objectives are set. Under such circumstances, the objectives need to be reexamined and reformulated into a few clear statements of what the programme seeks to achieve.
- 2. Clarify objectives and make them specific :** The main objectives in step 1 are further clarified and defined at this stage. Major objectives are subdivided into immediate specific clearly defined goals. This is a vital step. For only when objectives are clearly defined can it be decided later what is valid evidence of accomplishment. Clear objectives are the fixed points from which measurements are made and the basis for making decisions, since they define how people should behave if the programme or teaching succeeds. The importance of this basic step cannot be over – emphasized, for, on it primarily depends the success or failure of subsequent evaluation. An example of clarification or breaking down of overall objectives into the intermediate and immediate objectives is presented diagrammatically below. In this case, the overall objective of raising the level of living may be analysed into the intermediate objective of raising the level of living may be analysed into the

intermediate objectives of increasing food production, increasing crop yield, increasing wheat yield, increasing the productivity of soil through greater application of manures, until finally the immediate objective. Again, it is important that the relationship of each of these objectives with the overall objectives be clearly understood, both by extension workers and through them by village people.

Raise the standard of living	–	Overall objectives
Increase productivity	–	Intermediate objectives
Adopt green manuring	–	Immediate objective

3. **Identify indicators or the type of evidence that will indicate movement towards the objectives or achievements of it :** For instance the object of a programme of training may be to transfer knowledge with regard to anti-malaria precautions under village conditions. The indicator or evidence of movement towards the objectives will be the increase in knowledge on the part of the trainee with regard to this subject. At this point there is often a problem in identifying the changes that have taken place that give evidence of advance towards the accomplishment of the objectives. A few examples may help to explain the principle. If the objective is to have healthy children in the village, an indicator will be an increase in the weight of the under –weight children. Similarly, if the objective of a literacy programming is reading and writing ability up to the fourth class level for all village people above ten years of age, then an appropriate criterion or indicator would be the number of village people of this age group who have reached this level of ability compared percentage-wise with the number of people of this age group who already had reached this level of ability before the start of the programme. Step 3 is then an identification of what is to be measured. An identification of indicators that refer to the objectives in order to establish evidence of change.
4. **Develop techniques and methods of measuring accomplishments :** This means the evolving of instruments or devices for measuring the indicators which give evidence of achievement towards the objectives. The evaluator selects or devises these instruments to measure accomplishment by making a comparison

with a standard. The purpose of the measurement is to eliminate, as far as possible, subjective differences in judgement. In this step, a standard is set up against which to measure accomplishments. At the outset it may be crude, but continuous refining efforts will gradually make it possible, so that it can fulfill the basic requirements of a good measuring instrument. For example to register accurately the position against the criterion to which it relates. The following illustration will help in clarifying the point.

<i>Objective to measure</i>	<i>Indicator to observe</i>	<i>Possible instrument of evaluation</i>
Transfer of knowledge with regard to precautionary measures against Malaria	Increase in knowledge on the part of the trainee with regard to precautions against malaria	Examination question paper
Healthy village children	Increase in weight of under weight children	Weighting scale and before and after records.
Reading and writing ability up to the fourth class level	Increase in the number of village people who have reached this level	Examination of fourth level given before and after the training programme.

- 5. Consider and decide on the design of the evaluation :** In a programme to promote change, be it village development or training for this activity, specify changes as well as general changes in the behaviour, skills and attitude of village people and trainees are sought. The question to be faced is how to decide the extent to which any changes that have been achieved can be attributed to the programme, since there are many other factors that influence and bring about change. In designing an evaluation, some way of separating the effect of the programme from other influences is necessary. This may be done by setting up a control group, carefully matched to be alike in every major respect. The development programme will operate in one and not in other. This technique also involves the use of an adequate sampling procedure so that the sample drawn is truly representative of its universe.

- 6. Decide on what data are necessary to obtain evidence of achievement of objectives :** A careful determination of the specific type of data that gives evidence of movement towards the objective is sought in this step. Thus data with regard to infant mortality, and increase in the weight of children from birth over a period of time may be more relevant than other types of data in evaluating a programme to promote improved child care practices. This step will further involve the choice of a suitable method for the collection of information. The method or methods chosen will depend on local conditions and thus it may be decided that the use of the questionnaire is less suitable than the use of informal methods of questioning in order to secure information desired.
- 7. Select samples and collect data :** This step again involves the use of an adequate sampling procedure, so that the sample drawn is truly representative of its universe. In a training programme, it may not be necessary to draw a sample, since the number of case studies may be small enough to be handled without resorting to sampling. However, sampling is frequently used if the average performance in terms of efficiency of the trainees at a training centre is to be assessed.
- 8. Organise and analysis data and interpret results :** The data collected are put into a form suitable for analysis. This involves coding and tabulation. These reduce the data to a form in which they may be compared. It is only after this has been done that the proper analysis can begin. Analysis aims at answering two questions. (1) What change have taken place during the programme? (2) What portion of the change can be attributed to the programme? Interpretation of the analysis of quantitative data is greatly facilitated by qualitative data about behaviour, special incidents reactions and operations which are often important clues to the process by which the programme achieved its effects.
- 9. Reporting the results of the evaluation :** The results should be prepared in the form of a written report for the use of all concerned. It should be remembered that data should never be collected or presented for just its own sake. It should answer the questions raised and provide guidance in future. The report should be a summary of these answers.

5.3 Glossary

Planning : It means studying the past and present situation in order to forecast.

Programme : It is a statement of situation, objectives, problems and solutions.

Programme Planning : It is a process of making decision about important objectives to be attained.

Plan of Work : It consists of definite outline of procedure for carrying out work related to different phases of the long term programme.

Need : It is the difference between what is and what ought to be.

Objectives : These are ends in views, towards, which our efforts are directed.

Evaluation : It is in the process of determining the extent to which the objectives have been attained.

5.4 Summary

Programme planning is a continuous series of activities or operations leading to the development of a definite plan of action to accomplish particular objectives. It is a process by which people work together to determine goals. In this process they agree and feel that goals and experiences may help them in reaching their objectives. The Participatory Rural Appraisal (PRA) technique is used to obtain the peoples participation in the programmes. The evaluation of the programmes will help in measuring the worth of the activities undertaken in the programme.

5.5 Exercise for Practice

Answer the following questions in 200 words each.

1. What is programme planning ? Explain the principles involved in programme planning.
2. Describe the professional abilities required for the good extension programme planner.
3. Describe the role of the extension worker in agriculture and rural development.
4. What is evaluation? Describe the steps involved in evaluation of extension project programme.

Unit 6 : Administration & Management of Organization

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6.1 Introduction

There are many similarities exist in the administrative process and the task of management, regardless of the character of the programmes or organisational setting. A knowledge of the similarities and the elements contained in the process provides an important framework and a tool for the development administration. This framework is being designed in many contexts by many persons but no matter at what level of government a person is functioning – whether as in the role of a specialist or in a more generalized role to the extent that, he is working through an organization and is a part of a team of persons carrying out a specific objective, he is always engaged in a continuous process.

After the study of this unit, you will be able to know and understand :

- λ Nature and purpose of administration,
- λ Principles of administration
- λ Management of extension organization
- λ Public and private organization
- λ Privatization of extension services

6.2 Content

6.2.1 Nature and Purpose of Administration

As compared to the pre-independence efforts in providing educational facilities to the masses, the post-independence period has seen a tremendous expansion of these facilities in developing countries. This unprecedented phenomenon of change through educational means and methods can hardly be put in words and shows the great contribution of extension administration. Now, the extension administrators have to prepare themselves to respond to this challenging task. They have to be ready for a comprehensive transformation of the extension education system, so as to keep continually relevant to the needs and aspirations of the people.

Moreover, the forward looking administrators are conscious of shifting the emphasis from 'Maintenance' to 'Extension' or 'Development' administration. This shift in administration has led to further evolution of extension education concepts, principles, philosophies and applications. Several researches, studies and other contributions have shown a new trend in extension administration in the recent past, which have been summarized below:

	<i>Past practices</i>	<i>Present trends</i>
(1)	Traditionalism	Social dynamics and scienticism
(2)	Job-task hierarchy	Special process of social communication
(3)	Efficiency as a mechanical process	Efficiency as a human process

	<i>Past practices</i>	<i>Present trends</i>
(4)	Organization as 'bureaucratic structure'	Organization as a social institution
(5)	Control through command	Control through communication and motivation
(6)	Authority from top-down	Authority from the ground up
(7)	Leadership by authority	Leadership by consent
(8)	Decision as an individual, highly centralized act	Decision as a collective responsibility and highly decentralized act
(9)	Regimented work environment	Demonstration work environment
(10)	Technological changes by fiat	Technological changes by consultations
(11)	Based on social or financial	Based on social and/or financial structure' incentives
(12)	Planning preceding the crisis	Planning as an inbuilt formalized and structure' continuing process
(13)	Job was rated for subsistence	Job as a satisfying experience
(14)	Incomplete and delayed information	Complete and current information as and when required
(15)	Policy and administration dichotomy	Policy and administrative continuum
(16)	Profit with buccaneering	Profit with social responsibility
(17)	'Executive' administration	'Extension' Administration

Public Administration

Let us understand the public administration in the first instance, as its principles are applicable to extension administration. This involves the 'public' and the 'administration'. The word Public pertains to people as a whole and is opposite to 'Private Administration', this word 'public' means 'Government Administration in getting things done', or is concerned with the 'What' and the 'How' of government. The 'What' is subject matter, the technical knowledge of a field, which enables the administrator to perform his duties regarding his extension of any program. The

“How” is the technique management, the principles according to which the program are carried on successfully. So both are necessary for administrator of the programs.

According to Luther Gullick, “Public Administration is that part of science of administration which has to do with Government, and thus concerns itself primarily with the executive branch, where the work of Government is done, though there are obviously problems also in connection with Legislative and judicial branches”.

According to White “Public Administration consists of all those operations having for their purpose, the fulfillment or enforcement of public policy as declared by competent authority.” Simon, says that Public Administration in common usage, is the activities of the executive branches of the National, State or Local Government.

According to Pfiffner and Presthus, “Public Administration consists of getting the work of Government done by coordinating the efforts of people so that they can work together to accomplish their set tasks. Administration embraces activities, which may be highly technical and specialized such as public health, and building of bridges .It also involves managing, directing and supervising the activities of workers so that some order or efficiency may result from their efforts.

Exactness and predictability are regarded, as the two indispensable characteristics of science and the principle physical sciences seem to possess these characteristics. The scientific character of any study depends upon its methodology, rather than the exactness or certainty to which it can attain. Any subject to which we can apply a scientific method can be called a science. Public administration is a science just like any Social Sciences. The difference between a social science and physical science is only one of degree rather than of kind. For example, if we study the behaviors of human beings and generalize our findings, these generalizations may not have a cent per cent validity like a formula or the theorems of physical sciences, but the generalizations are useful as probabilities.

In public administration, we are concerned with two things: (a) the understanding of how people in an organization behave, and (b) practical recommendations as to how best to run an administration. With our increasing understanding through research data on administration, we can develop material on how our extension administration can be effective. If administrative decisions are fully recorded, like judicial decisions,

with a statement of the circumstances and reasons that led to them, they can become valuable precepts for administrative action, just as judicial precedents are for administration of justice. So, if we collect data on various ways of motivating the subordinate workers of an administrator, ways of better supervision, coordination, etc., in any branch of development work and our approach is scientific and methodological, our field becomes science. So public administration, when based on such findings in a Social Science.

Characteristics of Public Administration

1. Public administration is primarily a science of observation rather than of experiment. It is true with all social sciences, because one cannot conduct laboratory-type experiments, in the social sciences and cannot produce artificial conditions for testing. In certain sense, every new policy applied is a social experiment, results of which can be watched, but here it is not possible to isolate these results from the operation of numerous distributing factors and to establish unmistakable casual relations, e.g., the operation of a law forbidding child marriages (Sharda Act), may be followed by a reduced infant mortality rate, but we cannot definitely say that the latter is the effect of the law because a number of other causes like increased medical aid, better nutrition, etc, may be simultaneously working.
2. Like many other social sciences, public administration is a positive and normative science. It is concerned with: What is? and also what should be? We want good administration for a certain end – this end may be an effective extension programme and thus it makes it a normative science. There should be conditioned approach for an effective extension work. So what it means is – the slackness, lack of enthusiasm, red-tapism, lack of morale, lack of training, etc., in the extension workers: What should be – morale among the subordinates; informal approach, zeal missionary work, interest, technical knowledge, etc. For what? – effectiveness of the extension programme.
3. Public administration is a progressive science where the generalization or principles require constant revision retesting and relating the new discoveries. They are never final. Therefore it is a social science.

Purpose of Public Administration

The functions of administrative authorities include: Executive, Legislative and Judicial. They have various methods appropriate to different types of functions. For these functions, the activities are divided into various departments or sections. Running these departments involve various functions. These functions have behind them the purpose of the administration. The purpose may be community development through extension education, or law and order, controlling the finance, administration of transport, industries, etc. **The principal categories of administration maybe : (1) Planning , (2) Organization, (3) Command, (4) Coordination, and (5) Control.**

Whenever a purpose has to accomplished, the first step is to collect data, through enquiry or research, regarding the problem, we want to solve so that we may define the exact objective and then find out the possible means for realizing it. The forecast of these leads to a definite plan for the future action. This plan requires the necessary organization of men and material the object of which is coordinating, i.e., producing team work geared to the objective. Coordination leads to coherent command which finally keeps issues in control. These give rise to the understanding of scope of public administration.

Scope of Public Administration

Willoughby divided the scope of public administration into five major sections:

1. General or overhead administration including allocation of functions, directions, supervision and control,
2. Organization, i.e., building up of administrative structure,
3. Personnel, management, material and supply
4. Coordinating i.e synchronizing the activities and
5. Finance.

Luther Gullick denoted the functional elements of administration by the letters **‘POSDCORB’** wherein:

P : stands for **Planning**, i.e working out in broad outline, the things to be done and the methods to be adopted for accomplishing the purpose in hand;

- O** : stands for **Organization**, i.e., building up the structure of authority through which the entire work to be done is arranged into well-defined sub-divisions and coordination;
- S** : stands for **Staffing**, i.e., appointing suitable persons to the various positions under the organization, and the whole of personnel management;
- D** : stands for **Directing**, i.e., making decision, and issuing orders and instructions embodying them for the guidance to the staff;
- CO**: stands for **Coordination**, i.e., interrelating the various parts of the work and eliminating overlapping of the conflict;
- R** : stands for **Reporting**, i.e., keeping both the superiors and subordinates informed of what is going on, and arranging for collection of such information through inspection, research and records.
- B** : stands for **Budgeting**, i.e., financial administration.

Besides, the common housekeeping activities are the tools of administration, covered by the POSDCORB view, there are various line of functions produced for people like law and order, education, public health, agriculture, public works, social security, justice, defense, etc. Some of these can be grouped under programmes like community development. These programmes, or services, have important and specialized techniques of their own. In public administration, there are various ways of detecting crime, prevention of breaches of peace, control of gonads, but in community development or extension work the techniques have to be different. Organization in the Military Services has to be different than that of education.

So both views have to be combined to describe the scope of public administration. Just as the human body has both an anatomy and a physiology of its own, so also administration has common techniques of POSDCORB as its skeleton and the specialized methods of various programmes as its muscles and sinews. Without either of them, it cannot function like a body.

Applied administration has to be studied country-wise, department or function-wise, Government level-wise, historically and internationally. The main functions of public administration may be:

1. Political, including Executive-Legislative relationship; Politics-administrative activities of the Cabinet or Ministry; the Ministry-permanent official relationship.
2. Legislative-not merely Delegated Legislation, but the preparatory work done by the administrative officials and departments in connection with the drawing up of a Bill to be introduced in the Legislature and its passage through that body.
3. Financial – preparation of the budget; its execution, accounting, auditing, treasury management, etc.
4. Defensive – covering military administration, Educational and Social administration.
5. Economic administration-activities relating to the protection and encouragement of industries and of Foreign Trade and Commerce; running of public utilities and enterprises by Government.
6. Foreign administration - conducting foreign affairs, diplomacy, international cooperation, administration of international agencies and local administration activities of local bodies.

6.2.2 Principles of Administration

The basic principle of administration is “the right man in the right job”. Taylor as an industrial engineer, advocated responsibilities for the workers and management. It was management’s responsibility to plan and the worker’s responsibility to execute Utilizing the studies towards the scientific determination of a proper job design, Taylor proposed the methods and standards for performing each job, for training and supervising employees in proper use of tools and equipment and for evaluating each workers’ performance.

No system of management/administration, however good, should be applied in a wooden way. The proper personal relations should always be maintained between the employers and men. Taylor’s philosophy that management should be viewed as a science, strongly emphasizes the importance of proper job selection, placement and training, so as to take maximum advantage of each employee’s potential contribution.

Taylor's principles of administration are explained with relative activities as under:

1. Develop a science for each job with standardized work implementation and efficient methods for all to follow. Its related activity is complete time-motion study to determine the best way to do each work/tasks.
2. Scientifically select workers with skills and abilities that match each job and train them in the most efficient ways to accomplish tasks. Hence, related activity is : Use job descriptions to select employees, set up formal training systems and establish optional work standards to follow.
3. Ensure cooperation through incentives and provide the work environment that reinforces optional work results in a scientific manner. The related activity of this principle: Develop incentive pay, such as a piece-rate system, to reward productivity, and encourage safe conditions by using proper tools and techniques.
4. Divide responsibility for managing and for working, while supporting individuals in work groups for what they do best some people are more capable of managing whereas others are better at performing tasks laid out for them. The activity related to this principle is: Promote leaders who guide, not do the work, Create a sense of responsibility for group results by planning tasks and helping workers to achieve those results.

While commenting on the above principles Taylor argued “ The principle object of management should be to secure maximum prosperity of employer, coupled with maximum prosperity for the employee. Further Taylor (1967) proposed for principle of scientific management, is that the manager should develop a science of every job based on the rules of motion, standardized work tools and proper working conditions. Moreover, the manager should select workers with the best possible skills for the specific job and lastly the manager should train these workers to do the job scientifically and to motivate them with piecework incentives. Additionally the manager should support the workers with good planning and other management practices.

6.2.3 Management of Extension Organisation

Agriculture and rural development programs are mostly implemented by organizations, which may be government departments, educational institutions, non-government and voluntary organizations, or elected bodies like Panchayats etc. These are non-profit organizations, whose main aim of doing extension work is to improve the rural life. They generally try to attain their objectives by improving the rural enterprise through involving research and other support systems on the one hand and the client system on the other. Irrespective of the nature of organization there are some fundamental principles and methods, which guide their effective functioning, which in modern terminology is called Management. Management is of prime importance, as it depends on the successful attainment of goals by the organization.

According to Etzioni (1976), organizations are social units, or human groupings, deliberately constructed to seek specific goals. The goals of an organization serve many functions. They provide orientation by depicting a future state of affairs, which the organization strives to realize. Thus they set down guidelines for organizational activity. Goals also constitute a source of legitimacy, which justifies the activities of an organization and, indeed, its very existence. Moreover, goals serve as standards by which members of an organization and outsiders can assess the success of the organization i.e. its effectiveness and efficiency. A proper understanding of goals of an organization is of crucial importance for its success.

A formal organization is bureaucratic in nature. Bureaucracy, according to Weber(1947), has a technical meaning and identifies the following basic characteristics of a formal model:

1. Regular activities aimed at organization goals are distributed as fixed official duties.
2. Organization follows the principle of hierarchy.
3. Operations are governed by a consistent system of abstract rules that are applied to individual cases.
4. The ideal official operates as a formalistic impersonality without emotion.
5. Employment in the organization is based on technical qualification and is not subject to arbitrary termination.

6. From a purely technical point of view, bureaucracy attain the highest degree of efficiency.

Bureaucracy has, however, a number of limitations, which may hinder extension work. For example, bureaucracy is rigid and encourages formal relationship and formal patterns of behaviors with the people. It has the obsession with protecting and proliferating control over the people. Bureaucracy has also the tendency to complicate office procedures, thereby causing delay in decision and action.

Approaches to Organizational Change to Suit Extension System

According to Rogers and Shoemaker (1971), there are two basic approaches to organizational change. In authoritative approach, there is a very unequal distribution of power, and decision about change is made by a centralized power position, others being required to obey the decision. In participative approach, there is wide sharing of power, and decision about change is made in consultation with those affected by the change.

In most situation, the optimum way to choose objectives is somewhere in between the directive approach, where the objectives are chosen by politicians, bureaucrats or specialist outside the target group, and the non-directive approach where these objectives are chosen solely by the people themselves. The extension organisation is somewhat different. As stated by Van den Ban (1986) the goals of the extension organisation include the following :

1. The transfer of knowledge from research to the clients, who are generally farmers, farm women and rural youth.
2. Advising clients on the decision they have to make, sometimes by recommending a certain decision to be taken, sometimes by helping them to acquire sufficient insight into the consequences of the alternative from among which they can choose in order that they can make their own decision.
3. Educating, helping clients to make a decision in such a way that they are able to make similar decision themselves in the future.

4. Enabling clients to find their own way by helping them to clarify their goals and the possibilities, which they have, together with others, to realize these goals.
5. Stimulating desirable and sustained economic development.

Management

The term 'management' stems from the word 'manage', which, in turn, is derived from the French word ménage meaning 'housekeeping'. In general usage, the word 'management' identifies a special group of people whose job is to direct the efforts and activities of other people towards common objectives.

Koontz and Weihrich (1988), conceptualized **Management** as a process of designing and maintaining an environment in which individuals, working together in groups, accomplish efficiently selected aims. It means that :

1. as managers, people carry out managerial functions of planning, organizing, staffing, leading, controlling;
2. management applies to any kind of organization;
3. it applies to managers at all organizational levels;
4. the aim of all managers is the same : to create a surplus; and
5. managing is concerned with productivity; that implies effectiveness and efficiency.

The task of managers is to secure and utilize inputs to enterprise, to transform them through the managerial functions – with due consideration for external variables – to produce outputs. Now let us relate this concept to extension.

Agricultural Extension Management

Van den Ban and Hawkins (1996), presented some fundamental principles relating to management of agricultural extension. Though some of them may appear to be a repetition of what has been said earlier, still it is worth remembering them once.

1. Agriculture extension is one of the policy instruments a Government can use to stimulate agriculture development. However, farmers are always free to follow or to ignore the advice of their extension agents. Hence, extension can achieve changes which the farmers feel are in their interest.
2. Research findings and other farmers experience can help the individual farmers to achieve their goals more effectively. Therefore, agricultural extension must provide an effective linkage between farmers, agricultural research and other sources of information.
3. People can learn from experience. Extension agents have a major task in stimulating farmers to learn. Agents themselves also must be eager to improve their work by learning from their own experience, through listening to farmers, experimenting with new approaches, and observing and analyzing carefully the outcomes of these actions.
4. The technology for transmitting, storing and retrieving information is developing rapidly, and the costs of reaching individual through radio, television and printed matters have reduced considerably. Hence, extension agents must be familiar with the characteristics of media and to use them effectively. They must also be aware of the psychological and sociological aspects of group processes and individual extension.
5. Systematic planning can increase the effectiveness of extension organization. This planning requires clear decisions about what kind of changes the extension organization is trying to achieve among what categories of farmers, and how these changes will be achieved.
6. Careful evaluation of objectives, methods and results is an integral part of effective extension planning. Information produced in evaluation is an important tool for management of extension organization. The management style should stimulate the learning processes of both the client and extension agents.

Aspects of Agricultural Extension Management

The important aspects of the Agricultural Extension Management are described under planning, organizing, coordination and staffing.

1. Planning

Planning is decision making, and involves selecting and integrating the course of action that an organization will follow to attain its objectives. Planning is deciding in advance what to do, how to do, when to do, who is to do it and with what results. Planning envisages bridging the gap between where we are and where we intend to reach. Although the future can seldom be predicted with accuracy and unforeseen events may interfere with the best-prepared plans, unless there is planning, action of people tend to be aimless and left to chance. The effective planning includes the following aspects :

- (1) Clearly defined objectives and strategies.
- (2) Identification of the limiting or critical factors.
- (3) Anticipation of future requirements and problems.
- (4) Rigidity with flexibility.
- (5) Built-in method of monitoring and evaluation, so that needed changes could be made to reach the desired goals.

The social responsibility for extension planning is that their implementation shall help in reducing social disparity and make the benefits available to the entire clientele, particularly to the resource-poor larger community.

(a) Levels of Planning

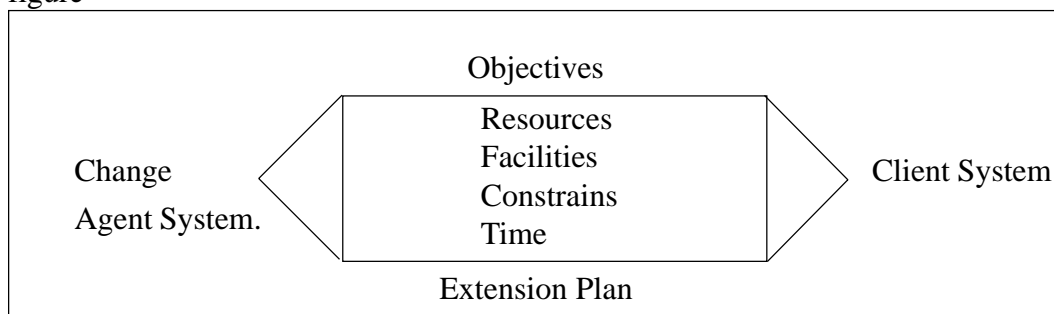
Levels of planning in an extension organization generally follow the pattern of how its aims, objectives and goals have been set. Aims are stated in the form of broad generalized purposes for which an organization has been established. Such statement of aims and plan remains valid throughout the existence of the organization, there may be changes in policy decision from time to time. Planning to reach the objective is more specific and covers a definite span of time, say a five-year period. Planning to reach the goals are for shorter duration and specify details of the job to be done within the given period of time. The duration of such plans may be one year for an annual plan or a season say for kharif or rabi production plans.

Who makes the plan is another way of looking into it. Levels of planning in an extension organization may follow the hierarchy of authority structure. At the top

there is simple or a few decision makers who make an overall broad plan which may remain valid for the organization for a long period of time. The plan may be in the form of policy decisions or a comprehensive plan embracing the functioning in the entire extension organization. To emphasize some of the particular aspects there may be sub-plans (say, tribal sub-plan) within the overall plan. Down below the administrative hierarchy, there are low level decision makers, who may be planning for fewer functions, in more details, which remain valid for a shorter period of a time. Functionaries at the lowest level have the least authority to take decision. Their job is mainly to implement or adopt what has been decided at the top. They may be planning for a single day or for a single fortnight. Planning for the Training and Visit program in the Directorate of Agriculture of a state is an example in this case.

(b) Elements in Planning

Planning in an extension organization is not done for its own sake, but for the purpose of improving rural life. There are some basic elements through the interaction and contribution of which a good plan may be developed . Planning results from the interaction of the two systems - the change agent system and the client system; in the context of their objectives, resources, facilities, constrains and time as shown in figure



Change agent system comprise the extension agents who influence the innovation decisions of the rural people in a direction deemed desirable by the extension organization *Client system* constitutes the rural people who are in need of and desire the change

In planning, the *Objectives* of the change agent system and the client system should be harmonious i.e. in tune with each other. Conflicting objectives of the two systems shall lead the planning nowhere. A common understanding on the objectives must be arrived at by the two systems. This may be done by thoroughly by studying the enterprises and environment, and exchanging ideas and opinions with the local people and their leaders.

The next element is availability of *resources* of the two systems. Has the extension organization adequate funds, trained manpower and appropriate technology for transfer? Do the farmers have adequate land, water, workers, money etc.? Replies to such question shall provide insight as to how the plan should be developed.

The next element is *facilities* which are available with the two systems. Does the extension organization have adequate staff, facility for training, physical facilities like vehicle etc.? For the farmers, are the recommended production inputs and credit available in time and in adequate quantity? Is the needed custom service like machinery etc. available on hire? The information thus available shall help in shaping the plan.

The *constraints* which the two systems perceive may limit the scope of planning. For the change agent system these may be weak organizational system, lack of adequate authority and responsibility, lack of suitable organizational climate etc. (Ray and Chattarjee, 1990). The client system constraints may be lack of soil productivity, tenurial problems, traditional norm etc. In making plans, perceptions about problems of the two systems are to be considered.

Lastly, comes the *time* factor. Does the change agent system have adequate time for planning and implementation of program? Does the client system has enough time to work for the program, or shall enough time be available to incorporate the program in the existing production system?

These are some essential elements which greatly influence on the planning of programs by the extension organization.

(c) Contingency Planning

Planning is done for future and the future is always subject to uncertainty. In

agriculture, uncertainties may arise from situations like drought, flood, cyclone, pests and diseases etc. In critical situations these may cause the basic premises for planning to change. The need for contingency planning arises in such situations.

According to Koontz and others (1984), **Contingency Planning** *for possible future environments which are not expected to occur but which may occur; if this possible future is widely different from that primised, alternative primises and plans are required.* Planning, therefore, not only involves predetermining a course of action to be taken relative to known event, but also includes mentally searching for possibilities of future problems that might appear.

Analyzing the data available from forecasts, monitoring, survey and surveillance etc. should be continuous process in an extension organization, to keep itself in readiness for preparation of alternative plans if situation arises. The nature of contingent plan in agriculture shall depend to a great extent on when the damage has occurred. Generally two types of situation may be arising. In the first situation, the damage may be caused early in the season, but adequate time is still available to raise the crop in that particular season. In the second situation, the damage may be caused late in the season and no time is left to raise the crop in that particular season. For the first situation, a contingency plan may be prepared to obtain whatever production is possible in that particular season, giving emphasis on high level input use, to make up for the time lost. For the second situation, a compensatory plan is generally prepared to increase production in the next season, to compensate for the loss of production in the earlier one. Whether it is a contingency plan or a compensatory plan, it should be input intensive and technically sound to make up for the loss of production that has already taken place.

2. Organizing

According to Koontz and Weihrich (1988), **Organizing** involves establishing an intentional *structure of roles for people to fill in an organization.* It involves (a) the identification and classification of required activities, (b) the grouping of activities necessary to attain objectives, (c) the assignment of each grouping to manage with

authority necessary to supervise it (delegation), and (d) the provision for coordination horizontally and vertically in the organization structure.

An organization structure should be designed to clarify who is to do what and who is responsible for what result, to remove obstacles to performance caused by confusion and uncertainty of assignment, and to furnish decision making and communication networks reflecting and supporting enterprise objectives. Effective organizing includes the following areas :

1. A balanced organizational structure
2. An optimum span of control i.e. an optimum number of persons or offices an individual can effectively supervise.
3. Clear line of authority from superior to subordinate
4. Adequate delegation of authority
5. Parity between authority delegated and responsibility fulfilled.
6. An individual reporting to a single superior
7. Division of work according to specialization of task
8. Adequate coordination.

(a) Line and Staff Functions

Line and staff functions indicate the pattern of distribution of authority in an organization. Simply stated, authority is the right to act. According to Koontz and others (1984), **Authority** *in an organization is the power in a position to exercise discretion in making decisions affecting others.* In an organization there may be four sources of authority.

1. Legal - authority granted by law, e.g. authority of the Director of a department, institution or an organization
2. Financial – authority to handle finance and financial matters, e.g. authority of the Comptroller, Finance Officer etc.
3. Operational authority – limited to the implementation or operation of some specific tasks e.g. authority of the Project Director, Team Leader etc.
4. Technical – authority which generates from expert or specialists knowledge, e.g. authority of the Entomologist, Soil Chemist etc.

In an organization, the authority is exercised by the line and staff personnel in two different ways.

Line Function is one in which a superior exercises authority directly over subordinates. In a Directorate of Agriculture, the Director of Agriculture is the head of the organization. The agricultural officers at the zonal, district, sub-division and block levels are the line personnel. In general, the personnel have independent offices through which they function and maintain their separate identity. The advantages of line personnel are that they have technical knowledge and are closer to operational area.

Staff Function is advisory in nature and is meant to assist the line personnel. They think for the head of the organization/ office and give necessary support and advice. In the Directorate of Agriculture, the Additional Directors of Agriculture, Joint Directors of Agriculture at the headquarters and the State level specialists like Entomologists, Plant Pathologists, Soil Chemists, Statistician etc. are the staff of the Director of Agriculture. Except the State level technical staff, others generally do not have independent office and do not maintain their separate identity. They work for the head of the organization or office.

There may be three categories of staff – technical i.e. those who deal with technical matters; officers i.e. those who deal with general administration, personnel, finance, audit, purchase etc. and office staff i.e. those who exclusively work in the office and assist the above mentioned staff and line personnel. For effective functioning of a technical department it is necessary for the technical staff to have good expertise and exposure to the field conditions. To ensure coordination, the officers should also have good understanding of the purposes and objectives of the organization.

The size of the staff should be determined on the basis of how big is the organization, how big is the budget, what are its responsibilities and how busy is the Chief Executive and other line personnel. The size of the staff in an organization should, however, be kept to the optimum level, as superfluous staff may be a financial and administrative liability to it.

The principle of span of management states that there is a limit to the number of subordinates a manager can effectively supervise. Depending on the actual situation, this may vary from three to eight subordinates or subordinate offices. The clearer the line of authority from the ultimate management position in an enterprise to every subordinate position, the clearer will be the responsibility for decision making and the more effective organization communication will be.

(b) Delegation of Authority

According to Koontz and others (1984), **Delegation of authority is the vesting of decision-making power in a subordinate by a superior**, and involves-

- (1) the determination of results expected from persons in position
- (2) the assignment of tasks to persons in a position
- (3) the delegation of authority for accomplishing these tasks and
- (4) the holding of people in position responsible for their accomplishment of these tasks

Delegation of authority may be general or specific for a given task and may be communicated formally by a written order or otherwise. The delegation should be clear and not vague, so that the subordinate precisely knows the limits of their authority and the superior knows what to expect in a given situation. The delegation of authority, to be effective must be commensurate with the funds, facilities and resources available to the subordinates. The subordinates have the responsibility or obligation to act. The superior, however, can not escape through delegation, responsibility for the activities of the subordinates.

The advantages of delegation are that, decisions are taken at the local level and many of the problems are solved at that level, and need not to be referred to 'above'. The necessity of 'upward' and 'downward' communication is reduced to the minimum, which causes considerable saving of time and energy in decision making. Most important is that the process of delegation stimulates the employees to accept challenge, discover and decide which create initiative and build up morale in them. They feel that they are a part of the organization and have the obligation to act.

In the delegation of authority, however, a few factors are to be taken into consideration. These are –

1. The extent of expertise and competence in the subordinates.
2. The extent to which the superior can trust the subordinates.
3. How quickly the decisions are to be made?
4. The level at which delegations are to be made.
5. The extent of coordination to be achieved by delegation, with other activities of the organization.
6. How busy is the top executive?
7. What emphasis is to be given in building initiative and morale in the subordinates?

Uses of Committees in Administration

Committee is a small group of persons to whom some matter is referred to mainly for detailed examination and decision. Committees may be formal i.e. officially constituted or informal. Committees may be relatively permanent e.g. standing committees or constituted temporarily for specific purpose. Members of the committee should have some expertise on the topic for which the committee is constituted. They may be selected, elected or nominated.

For successful operation of committees, the following points may be looked into :

1. Purpose – the purpose of setting up of a committee should be specifically and clearly stated. Topics requiring group deliberation and judgment are suitable.
2. Authority and scope – should be well defined and shall act within the specified time frame.
3. Size – should be optimum. A big committee often becomes ineffective due to its sheer size.
4. Members – should be carefully selected. There should be some specialists and also few generalists having wide range of experience and expertise relevant to the topic. A few members from parallel outside organization may be inducted. These shall help the committee in taking a balanced and unbiased decision.

5. Chairperson – should have adequate skill and experience.
6. Supporting staff – there should be adequate staff assistance.

(c) Coordination

Coordination means establishing harmonious relationship between the efforts of individuals and groups for the accomplishment of enterprise objectives. For smooth running of an enterprise, coordination is necessary within an organization, as well as with outside organizations. Some sort of basic coordination is essential within an organization throughout its lifetime for its survival and for unified action.

The need for coordination generally increases with increase in the size of organization and the complexity of its functioning. Voluntarily coordination may be encouraged amongst employees by clarifying the objectives and by motivating them. Coordination may also be achieved externally by the use of committees and supervision etc. Coordination aims at combining individuals, groups and organization as a 'Team' to attain the enterprise objectives.

Technology development and transfer activities in agriculture, according to Swanson(1997), involve very complex, interdisciplinary processes and interinstitutional relationship. By using *systems analysis* can managers begin to systematically analyze, manage, and monitor the various functions and linkages within their part of an agricultural technology system (ATS).

There are two basic types of linkage mechanism: organizational and managerial. Organizational mechanisms involve the structural modification of the research and / or extension organization or other organization that are involved in an ATS. These modifications may range from the formal merger of research and extension at the broader system level, the merger of specific units within research or extension, or it could involve the creation of new positions, units or permanent committees.

The other major type of linkage mechanism involves a range of managerial interventions. For example, research and extension may agree to collaborate on joint planning and review activities which may result in joint priority-setting, and in planning and actually carrying out joint program activities, like on- farm trials, demonstrations etc.

Other types of related managerial mechanism include resource allocation procedures such as allocating time and financial resources for specific linkage activities. For example, an adaptive research or farming systems research team might be housed in a district or regional extension office so that they would have closer working relationship with Subject Matter Specialists (SMSs) Alternatively, SMSs might be assigned to regional experiment station to work directly with one or more commodity research teams. Finally various training and communication devices can be used to improve the flow of information and technology within an ATS.

For linkages with farmers and their organizations, farmers may be formally represented on standing permanent research and extension advisory committees at the district, provincial, and national levels. In general, members on these advisory committees should be elected by farmers themselves through their respective organizations, from the bottom up. In addition to the formal linkage mechanisms, both research and extension personnel would be expected to have regular, informal contacts with different groups of farmers in their respective service area.

Involvement of Organizations at the Local Level

Rural areas have number of organizations at the local level, which can play a complementary role in improving rural life. These are in addition to the Government offices which may be located in the rural areas. The extension agent should build up and maintain close contact with these organizations and find out areas of functional coordination with them. The organizations may be grouped into two categories, non-profit and profit making. Involvement of organizations at the local level may be regarded as a necessary condition for successful implementation of extension programs. An indication about how these organizations may be utilized by the extension agent is given in brief.

(a) Non-Profit Organizations

1. Panchayats - In the 3-tier panchayati raj systems, the extension agency shall take policy decisions with panchayat at the district level. For implementations of specific projects, the extension agent shall involve the panchayats at the

intermediate and village levels. Focus should be on employment and income generation.

2. Youth club – Specific projects in which youth clubs may be interested, may be found out and worked upon. Emphasis should be on training of youth club members.
3. Mahila Mandal - Organizations of womens group and motivating the group members to carry out projects should be aimed at by the extension agent. Suitable training programs may be arranged for them.
4. Non-Government and Voluntary Organizations- The organizations may be motivated to take up specific projects. Voluntarily organizations generally have sub-centers and work through existing club or clubs organized by them. Sub-centre workers and club members need training and guidance for implementation of projects.
5. Schools - School teaches are generally viewed as credible sources of information in the rural area. Schools teachers may help in bringing awareness amongst the rural people about the projects and help in creating a favorable climate for their involvement in project implementation. The senior students of the schools, if properly informed and motivated by the extension agent, may act as carriers of change in their family. This holds goods for other educational institutions in the rural area as well.

(b) Profit making Organizations

1. Banks- The extension agent should be conversant about financing of projects by the banks, relevant to the job assignments. Bank officials should be involved in selected extension programs. Emphasis should be on timely repayment of loans.
2. Cooperatives – Utilization of existing cooperatives and organization of new cooperatives where needed, should be aimed at by the extension agent. The extension agent should be aware of the basics of cooperative societies. The cooperative societies should be utilized for financing farmers implementing the project, as well as for supply of inputs and marketing of their produce.

3. Commercial Establishment – Whether extension agents want it or not, farmers many times seek information and advice from the local dealers. To make their advice free from error and up-to-date, it is important to organize dealers’ training program periodically. Such training should emphasize on correct use of inputs; including comparative efficacy of inputs, dosage, timing, method of application, cost etc. Training on marketing should include items like regulated market, storage, transport, grading, market information etc.

Inputs Management

Inputs are material aspects of technology, the application of which can bring increased yield and income in an enterprise. The inputs mostly required for agricultural purposes are seed or seed materials, nutrients, water, plant protection chemicals, implements and machinery, power, credit and information. As the farmers are changing from traditional to modern, they require more and more of these inputs which are to be produced or purchased, mostly from outside. The inputs are produced and supplied by specialized organizations and agencies of commercial nature, which may be public or private

Mobilization of inputs in the far flung areas and making them available to millions of farmers over the country in an integrated manner at an appropriate time is a formidable task. It is the responsibility of the extension service to ensure that the inputs recommended are available to the farmers at a reasonable price, in time, inadequate quantities and are of good quality. This involves both long-term and short- term planning and coordination amongst various agencies.

(d) Staffing

Staffing is the process of selecting, maintaining and developing personnel in position to fulfill the organizational objectives.

Effective staffing requires –

1. Clearly defined organization roles.
2. Selection and recruitment of qualified personnel, who are able and willing to work on the positions.

3. Adequate compensation, both monetary and psychological.
4. Clearly defined job for each category of personnel, preferably with written job chart.
5. Periodical appraisal of personnel, with the criteria of appraisal made known to them in advance.
6. Continuous training and development of personnel.
7. Assessment of performance on the job.

6.2.4 Public and Private Organization

Public organization is bureaucratic in nature which is characterized by the regular activities aimed at organizational goals. To attain these goals fixed official duties are prescribed. All these organizations follow the principles of hierarchy and their operations are governed by a consistent system of abstract rules that are applied to individual cases. The officials operate as a formalistic impersonality without emotions. The employment in such organization is based on technical qualification and is not subject to arbitrary termination. Thus, bureaucracy attains the high degree of efficiency.

The public organization wherein bureaucracy operates has limitations which is hindrance to the extension service. For example bureaucracy is rigid and encourages formal relationship and formal patterns of behavior with the people. It has the obsession with protecting and perforating controls over the people. Bureaucracy has also the tendency to complicate office procedures, thereby causing delay in decisions and actions.

In the public organization the public administration operates. Here we are concerned with two things: (a) with understanding of how people in an organization behave and, (b) with practical recommendations as to how best to run as administration. With our increasing understanding through research data on administration, we can develop material on how extension administration can be effective. If administrative decisions are fully recorded like judicial decisions, with the statement of circumstances and resources that led them they can become valuable

percepts for administrative action, just as judicial precedents are for administration of justice.

A public organization is deliberately planned, designed and duly sanctioned by the competent authority. There may be an organizational set up on manual for the departmental working, roles, responsibilities, duties etc. like fundamental rules, financial codes, manual for different departments, status development department and or service departments like agriculture, irrigation, revenue, cooperative, finance, general administration, secretariats, railway, roads, Postal and Telegraph etc. In such departments or secretariats the concept of organization highlights the influence of personalities on organization. Sometimes public organization has to be modified or expanded in order to accommodate a person, whose services are considered extraordinarily valuable. The main function of public administration in an organization may be : (1) Political, including executive Legislative relationship; Political and administrative activities of the cabinet or ministry, (2) Legislative, (3) Financial, (4) Educational, (5) Social administration, (6) Economic administration, (7) Defensive, (8) Foreign administration and (9) Local administration.

The private organization is business like. It is characterized by non-political aspects. The private organization is free from red- tape. In the private organization the manager or owners caters to the needs of the customers without much botheration of rules. In the private organization the finance is in hands of a few individuals. The profit motive is the ruling motive of business. In such organizations the laws and rules are not much rigid. The codes of ethic like public organization are not applied rightly to private organization and its administration.

The organization in business consists of three processes viz Division of Labour, Emergence of authority and Determination of interpersonal relationships. From the various studies it is inferred that the private organization includes : (a) The coordination and combination of activities, (b) The classification of functions, (c) The determination of authority and responsibility and (d) The delegation of authority.

The building of private organization depends upon the following factors:

- (1) Assembly of money, manpower and materials
- (2) Establishment of formal relationships

- (3) Determination of the role, responsibility, authority and accountability of every individual in the organization and
- (4) The necessity to stimulate people to work speeding and increase efficiency of sections and departments.

There are also non-profit making private organizations which are informal in nature. These are youth clubs, mahila mandals, non-government and voluntary organizations schools, and farmers organizations.

6.2.5 Privatization of Extension Services

In a new century people would expect a better life to meet their aspirations, the extension agencies have to think of more effective ideas and more effective methods of working with the people.

In the past public extension agencies had more or less a monopoly in extension, but at present farmers can also use many other sources of information to obtain the new knowledge they need for their decision making. Not only farmers have to compete for their survival, but also extension agencies. They will only be able to survive if they change themselves. The changing environment is a threat for these agencies. They have opportunities to perform new roles for which there is need among the farmers and in the society.

Privatization of extension education is being done by establishing different Non-government organizations (NGO). For example the Krishi Vigyan Kendra's Transfer of Technology farming community is looked after by the NGO'S in the country. Recently the village cleanliness compains known as Sant Gadge Maharaj Gram Swachhata Movement has been executed by the villagers in Maharashtra by organizing themselves in different groups. As estimated in terms of value Rs.200 crores work of cleanliness was done by these villager's organization. Thus, the program becomes people's program with Government participation. Same is the case of distribution of water and its management is being looked after privately by the villagers with government aids, through irrigation societies.

Education in general and technical education in particular have been privatized

by the State Government at primary, secondary and university levels, wherein a number of organizations or NGO'S come forward to take responsibility of education to students in the faculty of Science, Art, Law, Engineering and Medicine. Some of the educational institutions are working as the deemed university in Maharashtra, for example Bharati Vidyapeeth and Symboisis Pune, Dr. D.Y. Patil Education society.

The input supply agencies of agriculture and allied fields are giving extension services to people along with their products. These are fertilizer companies, seed companies, transport and road construction companies, electricity, mechanization etc. The watershed development programs and a forestation is implemented by NGO'S with the financial assistance of state, central government and international level like Indo- German watershed Development Program, Indo-Britain Public Health Program, UNDP Programs are executed by the NGO'S in their area of operation. Thus, Privatization of extension services in the form of education, agriculture, irrigation, electricity, health etc. is taken by variety of local, district, state and national levels NGOs and they are successful in the respective fields. Now they are organized in the form of federations. The recent trend in agricultural extension is towards privatization of the agriculture education and extension services.

6.3 Glossary

Development Function : The function of HRM concerned with preparing employees to work effectively, and efficiently in the organization.

Duty : A number of task involved in one's job.

Job : A type of position within organization.

Management : The process of efficiently getting activities completed with and through other people.

Organization Development : A process of system-wide change designed to make organization more adaptive.

Organization : are social units or human grouping, deliberately constructed to seek specific goals.

Planning : is decision making and involves selecting and integrating the course of action that an organization will follow to attain its objectives.

Authority : in an organization is the power in a position to exercise discretion in making decisions affecting others.

Coordination : means establishing harmonious relationship between the efforts of individuals and groups for the accomplishment of enterprise objectives.

Staffing : is the process of selecting, maintaining and developing personnel in position to fulfill the organizational objectives.

Controlling : is seeing that the operational methods and results conforms as nearly as possible to the agreed plan and there is no deviation from the plan unless there is necessity for the same.

6.4 Summary

We have dealt with the administration and management of organization with the objective of understanding nature and purpose of administration, wherein different types of organization has been discussed to attain their objectives. In this area, there are public and private organizations which are functioning with the process of administration and management tools. The use of management of extension organizations has been discussed in order to educate the people in rural areas in respect of their development and their standard of livings. The issue of management of private organization has also been dealt with. Similarly the characteristic and functioning of the public and private organizations have been discussed, which are interdependent. The privatization of extension services is a recent development. The public and private extension organization will have to work hand in hand for the welfare of the rural community.

6.5 Exercise for Practice

Answer the following questions in 200 words each.

1. Define and discuss administration and management in the context of organization.
2. Differentiate and describe public administration and private administration.
3. State and explain **Van den Ban's** fundamental principles of agricultural extension management.
4. Write note on planning, organizing, coordination and staffing in agricultural extension management.

Unit 7 : Human Resource Development

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- 7.5 Exercise for Practice

7.1 Introduction

Charlie brown stated in respect of human man kind that “I love mankind. It is people that I cannot understand.” We have to deal with the subject of Human Resource Management with the help of people’s organization. An organization is nothing but human resources. When we think about the organization that provide us with goods and services, any one or more of which will probably employ you during your life time ,how often do you explicitly consider that these organization depend on people to make them operate? It is only under unusual circumstances such as clerks go on strike at your local supermarket or teacher’s walkout in your school, that you recognize the important role that employees play in making the organizations work. But how did these people come to be employees in their organization? How they were found and selected? Why do they come to work on a regular basis? How do they know what to do on their jobs? How does management know, if the employees performing adequately? If they are not, what can be done about it? Will today’s employees be

prepared for the work, the organization will require them in ten, twenty, thirty years?

These are some questions whose answer lies in the subject of Human Resource Management (HRM)

After the study of this unit, you will be able to know and understand :

- λ The concepts and principles of management
- λ The principles of personnel management
- λ An analytical approach and motivation techniques in HRD
- λ Performance appraisal and HRD in Agriculture

7.2 Content

7.2.1 Concepts and Principles of Human Resource Management

The Human Resource Management for development is concerned with the 'people'. Since every organization is made up of people, acquiring their services, developing their skills, motivating them for high levels of performance, and ensuring that they continue to maintain their commitment to the organization are essential to achieve organizational objectives. So this is true regardless of the type of organization i.e government, business, education, agriculture, health, recreation or social action. Getting and keeping good people is critical to the success of every organization, whether profit or non-profit, public or private.

Those organizations that are able to acquire, develop, stimulate, and keep outstanding workers will be both effective and efficient. These organizational workers work and influence its productivity. Workers are more demanding in what they wanted from a job; the society, by means of laws and legalization and are placing new demands on employers.

Organizations have to hire the best qualified candidate without regards to race, religion, sex or national origin. The individual hired needs to be trained to function effectively within the organization. Once hired or trained, the organization has to provide means of continuing the personal development of each employee. Practices need to ensure that these employees maintain their productivity and productive

affiliation with the organization. At the same time the work condition has to establish such a work environment which induces workers to stay with the organization and simultaneously attract new applicants to the organization. These activities amount to one conclusion that human resources of an organization must be managed for development and give more specific outline of managing an organization.

In recent years there has been relative agreement among the Human Resource Management. Specialist as to what constitutes the field of HRM. Hence, the concept is explained with the help of model that provide the focus was developed by the American Society for Training and Development (ASTD). This model is called as the model for Excellence. The ASTD identifies nine resource areas : (1) Training and Development (2) Organization and Development (3) Organization and job design (4) Human Resource Planning (5) Selection and Staffing (6) Personnel research and Information System (7) Compensation and Benefits (8) Employees Assistance (9) Union and labour relations .

These areas have been termed spokes of the wheel in that each area make impacts on the human resource output: Quality of work life, productivity and readiness for change. The output of this model quality of work life, productivity and readiness for change – warrant further exploration

Taylor (1903) an industrial engineer advocated separate responsibilities for workers and management. It was management's responsibility to plan and the worker's responsibility to execute. Utilising time studies forward the scientific determination of a proper job design, Taylor proposed methods and standards for performing each job, for training and supervising employees in the proper use of tools and equipment and for evaluating each workers performance. However, he had gone on record in 1903 about his belief in the uniqueness of each worker.

“No system of management, however, good should be applied in a wooden way. The proper relations should always be maintained between the employer and people”

Taylor's philosophy that management should be viewed as a science strongly emphasized the importance of the proper job selection, placement and training so as take maximum advantage of each employee's potential contribution.

Human Resource Development in organization

Human resource development in the organization context is a process by which the employees of an organization are helped in a continuous and planned way to :

1. Acquire or sharpen the capabilities required to perform the various functions associated with their present or expected roles.
2. Develop their general capabilities as individual and discover and exploit their own inner potentials for their own and organizational development purposes.
3. Develop an organizational culture in which supervisor subordinate relationship, teamwork and collaboration among subunits are strong and contribute to professional well-being, motivation and pride of employees.

More specifically, the goals of human resource development in organization are to improve (a) The capabilities of each employee as an individual (b) the capabilities of an each individual relation to present role and expected future roles (c) the relationship between each employee and supervisor, (d) the team spirit and collaboration among the different units of organization and (e) the organizations overall health and self renewing capabilities.

Management scientists have grouped competency requirements in organizational life into four categories: technical, managerial, human and conceptual. The relative importance of these skills seem to vary with the level of administrative responsibility such as technical skill at bottom level, managerial and human skill at the middle level and conceptual skill at the top level. Educational psychologists further differentiate knowledge, attitude and skill components in each of these categories. Of these, knowledge components are developed with relative ease in a class room situation. Attitude and skills can be developed and strengthened mostly on job.

7.2.2 Personnel Management

Management is the process that keeps an organization from flying apart because of the tension. It makes it work and secure its survival towards profitability or effectiveness. This process also become subject to the division of labour and the activities, it comprises are allotted to individual managers. Working on behalf of organization owners or shareholders and with the authority derived from them,

managers draw upon the number of resources to enable them to complete their task. The raw material, finance, technology, appropriate skilled people, legitimacy, support and goodwill is drawn from the organization's environment. They manage the organization by employing efficient people with appropriate skills. They have authority, information and other resources needed to complete their tasks.

The need to manage people and relationship are inherent in the managing of the organization, but the very nature of the people and the way they constitute an organization make management complex. Unlike other resources people interact with those who manage them and among themselves, they have needs for autonomy and the agency, they think and are creative, they have feelings, they need consideration for their emotional and physical needs and protection. Their characteristics as human beings greatly complicate the task of managers, who can only work with and through people to ensure that the organization survives and thrives in the face of increasing pressures from the environment.

The management of people is therefore not only a more diffuse and complex task than the management of other resources, but also essentially a moral one. Owners and managers are confronted with the choices about how to manage people and resolve organizations tensions. The next subsection examines some of these choices and the strategies adopted to handle them. We must first, however, note that as organization become larger and more complex, the division of managerial labour often leads to specialists' people. Functions to advise and support line manager in the complex and the demanding task of managing the staff. This is the personnel function, which has developed professional and highly skilled expertise into certain aspects of managing people such as selection, training and industrial relations, which it offers in an advisory capacity to line managers who nevertheless remain to prime managers of people. However, the division of labour has fragmented the management of the people. Human resource management appears to be other strategy to reintegrate it into the management of the organization.

Human resource management has emerged as a set of prescriptions for managing people at work. Its central claim is that by matching the size and skills of workforce to the productive requirement of the organization and by raising the quality of

individual employees' contribution, organizations can make significant improvement to their performance. While the specific tools to achieve this may vary from organization to organization, human resource therefore seems to be characterized by following principles.

1. Human resources are the key organizational assets. Since the organizational performance depends upon the quality of the employees' effort and hence, on their ability and motivation. From this there follows a set of prescription which have become common place in the human resource management literature.
2. Human resource decision should be integrated with the other key business decision at strategic levels within the organizations in order that the size, structure and deployment of the workforce are matched to the market – led production requirements.

Storey(1992) identified four elements of Human Resource Management (HRM) which are helpful in successful management of an organization.

- (a) It is human capability and commitment which, in the final analysis, distinguishes successful organization from the other organization.
- (b) HRM is of strategic importance, it needs to be considered by top management in the formulation of the corporate plans.
- (c) HRM has long term implications and is integral to the core performance of the business or public sector organization. In other words it must be the intimate concern of line managers.
- (d) The key levers in HRM used to seek not merely compliance but commitment.

Storey approaches an analysis of HRM by creating an 'ideal type' the purpose of which' is to simplify by highlighting the essential features in an exaggerated way. He developed a classificatory matrix of 27 points of difference between personnel and industrial relation practices and HRM practices. The elements are categorized in four parts basic outline.

- (i) Beliefs and assumption
- (ii) Strategic aspects
- (iii) Line management
- (iv) Key levers

This HRM model is not essentially an aim in itself but more a tool in enabling sets of approaches to be pinpointed in organization for research and analytical purposes. His theoretical model is thus, based on conception of how organizations have been transformed from predominantly personnel practices to HRM practices. It is an essential a tool for enabling competitive analysis.

Points of difference between personnel practices and HRM practices

<i>Diamension</i>	<i>Personnel practices</i>	<i>HRM practices</i>
(i) Beliefs & Assumption		
(1) Written contracts	Careful delineations of contract	Aim to go beyond
(2) Clear rules and mutuality	Importance of devising impatience with 'rule'	'can-do' outlook
(3) Grid to management action	Procedure	Business need
(4) Behavior reference	Norms/custom and practice	Values/mission
(5) Managerial task vis-à-vis labour	Monitoring	nurturing
(6) Nature of relation	Plurist	unitarist
(7) Conflict	Institutionalised	De- emphasized
(ii) Strategic Aspect		
(8) Key relations	Labour management	customer
(9) Initiative	Piecemeal	integrated
(10) Corporate plan	Marginal to	Central to
(11) Speed of decision	Slow	Fast

<i>Diamension</i>	<i>Personnel practices</i>	<i>HRM practices</i>
(iii) Line Management		
(12) Management role	Transactional	Tranformation leadership
(13) Key managers	Personnel/ IR specialist	General business/ line managers
(14) Communication	Indirect	Direct
(15) Standardization	High	Low
(16) Prized management skills	Negotiation	Facilitation
(iv) Key Levers		
(17) Selection	Separate, marginal task	Integrated key task
(18) Pay	Job evaluation	Performance related
(19) Conditions	Separately negotiated	Harmonization
(20) Labour Management	Collective bargaining contracts	Towards individual contracts
(21) Thrust of relation with stewards	Regularized through facilities and training	Marginalized
(22) Job categories and grades	Many	few
(23) Communication	Restricted flow	Increased flow
(24) Job design	Division of labour	Team work
(25) Conflict handling	Reach temporary truces	Managing climate and culture
(26) Training and development	Controlled access to courses	Learning companies
(27) Foci of attention for interventions	Personnel procedures	Wide ranging cultural, structured and personnel strategies

7.2.3 New Analysis and Motivation Techniques

People who are “motivated” exert a greater effort to perform than those who are “not motivated”. However, such definitions are relative and tell us little. A descriptive definition would say ‘motivation’ is willingness to do something and is conditioned by this action’s ability to satisfy some need for the individual. A ‘need’, in our terminology, means some internal state that makes certain outcomes appear attractive.

An unsatisfied need creates tension, which stimulates drives within the individual. These drives generate search behavior to find particular goals that, if attained, satisfy the need and lead to the reduction of tension. Motivated employees are in a state of tension. To relieve this tension, they engage in activity. The greater the tension, the greater the activity to bring about relief. Therefore, when we see people working hard at some activity, we can conclude that they are driven by a desire to achieve some goal that they perceive as having value to them.

The Psychological Approach to Motivation

Some of the modern studies on motivation and productivity found that individuals do not fit nicely into the models that many of the early motivational theorists proposed. Tailoring a specific job to a specific individual may be too costly or highly impractical. It is necessary to view motivation from a set of factors that provide the basis of individuality. One such factor is personality type. Each one of us has a unique mixture of ingredient that makes our personality. However, we generally display one ingredient predominantly. These predominant tendencies, while individualized can be defined and separated into four categories : (a) dominant, (b) influencing, (c) steady and (d) careful.

Each of these four personality type has a distinct trait. While we cannot always identify an individual’s mixture of four personality types without extensive assessment, we can see the predominant type expressed behaviorally. For example, suppose we are outside a movie theatre and are awaiting the arrival of our four personality individuals. This is what we may find. The dominant person arrives two

minutes late for the feature film. Already past the cartoons, the dominant person arrives yells to the user to stop the film and rewind it. How dare the theatre start anything before he arrives! The influencing individual is in the back of the theatre, passing out free drinks and popcorns. He has many people laughing there and you wonder whether these people have come to see him instead of the movie. The influential person knows every joke in the movie and gives the punch line before it is said on the screen. The steady person arrives thirty minutes before the start of the movie. He wants to make sure that he gets a good seat, not too close so as to cramp his neck; nor too far away so as to strain his eyes; just the right seat. He keeps reading the latest movie review while waiting for the movie to start. Finally, the careful person : You can't find him why? He is already inside. He came two hours early just in case there might be some traffic jam or something else to contact with .He does not want to miss the movie. In fact, he is so early that he decides to go into the theatre and watch the first show. Now he is ready to sit through it again, to make sure he heard every line that was uttered.

While this parody has poked some fun at the four personality types, we can see a bit of ourselves in each of them. In fact, we take these same behavior to the job and act accordingly. For instance, have you ever seen that steady, careful secretary so loyal to the boss and so accurate in typing and proof reading? What a wonderful combination of personality type!

Motivation Suggestion

Employees are happier and more productive, when they are placed into jobs that are related to their skills, abilities and desires. Personality typing permits the tailoring of rewards to meet the specific wants of the individual. For example, if the steady employees' values job security, then one means of motivating that individual would be rein free his or her security with the organization. Certainly other requirements must be met but offering what is truly desired will have the greatest impact. The four personality types with their respective motivators are presented below :

- (a) **Dominant** : Power, Authority, Control over results, Freedom from Restraint, Wide scope of operations
- (b) **Influencing** : Popularity, Recognition, Contact with people, Freedom of expression, Favorable Relationship,
- (c) **Steady (Stability)** : Planned Change, Conflict–Free environment, Clear responsibilities, Concrete Results
- (d) **Careful** : Personal autonomy, Think time, Freedom from pressure, Personal achievements, Quality standards

Assessing personality types of both the employees and the job is becoming increasingly popular in today’s organization, with more focus being placed on making the environment at the worksite, more conducive to productive work, placing individuals in job that match their makeup and fulfilling our basic premise of tailoring rewards to each individual will inevitably produce a motivated employee. Even though this process seems logical and is becoming popular, we do not find that this or other motivational processes are being properly implemented.

7.2.4 Performance Appraisal

An Anonymous stated: **“My Company pays for performance. Unfortunately no one here knows how to measure it”**.

Since an organization exists to achieve goals, the degree of success that individual employees have in reaching their individual goal is important in determining organizational effectiveness. The assessment of how successful employees have been at meeting their individual goals, therefore, becomes a critical part of HRM. This leads us to the topic of performance appraisal.

There are three purposes to which performance appraisal can be put. (1) It can be used for reward allocation. Decisions as to who gets salary increases, promotions and other rewards are determined by their performance evaluation. (2) These appraisals can be used for identifying areas where development efforts are needed. The performance appraisal is a major tool for identifying deficiencies. (3) The performance appraisal can be used as criterion against which selection devices and

development programs are validated. The development of a valid, reliable and bias free performance appraisal system can establish such standards.

Satisfactory performance implies a combination of things. It means doing a job effectively and efficiently, with a minimum degree of employee created disruptions. Now that we have an understanding of the term 'Performance', we can turn to the subject of performance appraisal process.

The appraisal process begins with the establishment of performance standard. These should have evaluated out of job analysis and the job description. These performance standards should be clear and objective enough to be understood and measured. Once the performance standards are established, it is necessary to communicate these expectations. It should not be part of the employees' job to guess what is expected of them. It is important to note that communication is a two way street. Communication only takes place when the transfer of information has taken place and has been received and understood by the subordinate. Therefore, feedback is necessary from the subordinate to the manager. Satisfactory feedback ensures that the information communicated by the manager has been received and understood in the way it was intended.

The next step in the appraisal process is the measurement of performance. To determine what actual performance is, it is necessary to acquire information about it. We should be concerned with how we measure and what we measure.

Four common sources of information are frequently used by managers to measure actual performance: personal observation, statistical reports, oral reports, and written reports.

What we measure is probably more critical to evolution process than how we measure, since the selection of the wrong criterion can result in serious non-functional consequences. And what we measure determines, to a great extent, what people in the organization will attempt to excel it.

The next step in the appraisal process is the comparison of actual performance with standards. The attempt in this step is to note deviation between standard performance and actual performance, so that we can proceed to the next step in the process i.e. discussion of the appraisal with the employee.

The final step in the appraisal is the intimation of corrective action when necessary. Corrective action can be of two types. One is the immediate and deals predominantly with symptoms. The other is basic and develops into causes. Immediate action corrects something right now and gets things back on track. Basic action asks how and why performance deviated. Good managers recognize that they must find the time to analyze deviation and in situations, where the benefit justifies such action, permanently correct significant differences between standard and actual performance.

Appraisal Methods

The management has to establish performance standards and devise instruments to measure and appraise an employee's performance. The important aspects in measuring the performance are stated below. These should be considered while formulating the appraisal methods.

1. Performance is reflected in the effectiveness, efficiency and personal data of the employee. It can be measured in terms of the accidents, turnover, absences and sturdiness of the employee.
2. The employees can be appraised against absolute standards, relative standards or objectives set for them.
3. While formulating the appraisal method, first establish the performance standards and communicate them to the employees and inform them that their performance will be rated as per these standards. Then measure the actual performance and compare it with set standards. Discuss the appraisal with the employee and if necessary initiate corrective action.
4. More effective appraisals can be achieved with behaviourally based measures. Other methods which can be adopted are multiple rating, selective rating, peer assessment and obtaining feedback. Trained appraisers can be used for appraisal and rewards may be given for accurate appraisals. A combination of absolute and relative ratings may be used for drawing valid conclusions.
5. One has to guard against faulty appraisals as it can be distorted by various types of errors. Do not try to force the information to match the performance criteria. There should be proper motivation to the employees for good appraisal.

6. The performance appraisal should be used in allocating rewards to the employees. It should identify the areas, where development efforts are needed.

7.2.5 HRD in Agriculture

To look at the Human Resource Management more specifically, it is suggested that it is the process consisting of four functions- (a) acquisition, (b) development, (c) motivation and (d) maintenance of human resources. In less academic terms, we describe these functions as getting people, preparing them, activating them, and keeping them.

- (a) **Acquisition Function** : The acquisition function begins with planning related to Human Resource Management; we need to know, where we are going and how we are going to get there. This includes the estimating of demands and supplies of labour. acquisition also includes the recruitment, selection and socialization of employees.
- (b) **Development Function** : The Development Function can be viewed along with three dimensions. The first is employees training, which emphasizes skill development and changing attitudes among the workers. The second is management development, which concerns itself primarily with knowledge acquisition and the enhancement of an executive's conceptual abilities. Third is career development, which is continued effort to match long-term individual and organizational needs.
- (c) **Motivation Function** : The motivation function begins with the recognition that individual are unique and that motivational techniques must reflect the needs of each individual within the motivation function, alienation, job satisfaction, performance appraisal behavioral and structural, techniques for stimulation, worker performance. The importance of linking rewards to performance, compensation and benefit administration and how to handle problem employees are reviewed.
- (d) **Maintenance Function** : The final function is maintenance. In contrast to the motivation function, which attempts to stimulate performance, the maintenance function is concerned with providing those working condition that employees

beliefs are necessary in order to maintain their commitment to the organization.

According to Harrison (1992) the Development is the all important primary process, through which individual and organizational growth can through time achieves its fullest potential. Education is major contributor to that process, because it directly and continuously affect the formation not only knowledge and abilities, but also character and of culture, aspiration and achievement. Training is short term, systematic process through which an individual helped to master defined task or areas of skill and knowledge to pre determined standards. There needs to be a coherent and well planned integration of training, education and continuous development in the organization, if real growth at individual and organizational levels is to be achieved and sustained.

The concept of 'development' is explored which is being demanded more and more of employees in the modern organization. It is a process in which the learner 'becomes increasingly complex, more elaborate and differentiated and thereby able to adapt to the changing environment.' Number of theories and model of development are explored in the life span of an individual may be an employee or farming societies or member farmer. These were seen in the context of career development and continuing professional development, the latter of which explored the controversial and complex element in the concept of career.

Agriculture management in India has to perform three most important functions. (a) To educate farmers about the modern and scientific agriculture technology and to enthuse them to apply the same. (b) To solve new emerging problems in farming and (c) To ensure supplies and services required for agricultural production efficiency.

In order to perform these functions efficiently and satisfactorily they have to be broken into the specific jobs; these jobs are : (1) Planning (2) Organizing (3) Coordinating (4) Staffing (5) directing (6) Supervising (7) Communicating (8) Budgeting (9) Reporting (10) Evaluation

In case of the Human Research Development, we are concerned with staffing which is the process of selecting, maintaining and developing personnel in position to fulfill the organizational objectives. The effective staffing requires :

1. Carefully defined organizational roles.
2. Selection and recruitments of qualified personnel, who are able to and willing to fill the positions.
3. Adequate compensation, both monetary and psychological.
4. Clearly defined job for each category of personnel perfectly with written job chart.
5. Periodical appraisal of personnel with the criteria of appraisal made known to them in advance.
6. Continuous training and development of personnel
7. Assessment of performance on the job.

Training in HRD

The training for personnel and professional development is one of the major activities for development of the personnel's behaviour covertly and overtly. Hence, the training becomes the means of human development for performance of jobs efficiently and effectively. Thus, training is the process of acquiring skills of specific nature to perform a job better. According to Halim and Ali (1997) there are three approaches to training. In the traditional approach, the training staffs design the objective, contents, teaching methods etc. The focus is in the intervention by the training staff. In the experimental approach, the goals and other elements of training are jointly determined by the trainers and trainees or their organization. It emphasizes real or stimulated situations in which the trainees shall eventually operate. The trainers primarily serve as facilitators, catalysts or resource person. In performance based approach to training, goals are measured through attainments of a given level of proficiency. Emphasis is given to acquiring specific observable skills for a task as in agriculture extension.

There are different nature of training for personnel development and the farmers as the actor of production of agriculture commodities. Those training meant for extension personnel for agriculture based jobs are : pre service training, inservice training which comprised of orientation training, foundation training, refreshers training, on the job training, and career development training. In case of Agricultural

Extension and the Community Development Programme the 'Training for Development' is used by variety of training programs for farmers and their family members. These are: Training of the farmers, training for the farmers' sons, Training for farm youth by establishing the pilot young farmer clubs around extension training centers, training of young farmers in district, their training through voluntary organizations, International farm youth exchange program with the USA and other countries, exchange of farmers within the country, regional rural youth staff and leader's training. Workshop people's action for development in India , Krishi Vigyan Kendra (Farm Science Centers), Trainers Training Centers, Nehru Yuva Kendra, National Service Scheme, Workshop wings, Auxiliary Courses like Poultry, Livestock Management, Fruit preservation, Kitchen gardening Home management etc.

Training facilitate the development of personnel as well as farmers and their families for updating their knowledge, skills, attitude etc. for action and adoption of recommended agricultural technologies for production, processing and marketing of the products and production with the help of agricultural departments, Agricultural universities and other developmental departments and Non-Governmental organizations.

7.3 Glossary

Achievement Need : The drive to excel, to strive to success.

Careful Personality Type : A personality characterized as being meticulous with details.

Development Function : The function of Human Resource Management concerned with preparing employees to work effectively and efficiently.

Dominant Personality Type : A personality characterized as being forceful and dominating.

Effectiveness : Attainment of goal.

Efficiency : The ratio of inputs consumed to output achieved.

Human Resource : The persons working in an organisation are the human resources of that organisation.

Human Resource Planning : The process by which an organization ensures that it has the right number and right kind of people , at the right places, at the right time, capable of effectively and efficiently completing those tasks that will aid the organization in achieving its overall objectives.

Human Resource Management (HRM) : A process consisting of the acquisition, development, motivation and maintenance of the human resources.

Job : A type of position within the organization.

Motivation : The willingness to do something, conditioned by the ability to satisfy some need.

Performance : Effective and efficient work, which also consider personnel data such as measures of accidents, turnover, absence and sturdiness.

Personnel Management : The traditional area responsible for the management of human resources.

Task : A distinct work activity carried out for a distinct purpose.

Training : A learning experience that seeks a relatively permanent change in an individual that will improve his or her ability to perform on the job.

Validity : The proven relationship of a selection device to some relevant criteria.

7.4 Summary

The objective of Human Resource Management is to outline the origins and the recent changes and development in the employees relationship, debate the nature of the HRM phenomenon and the different perspective from which it is viewed and to review and evaluate the main models, framework, and theories of HRM.

Human Resource Development in the organizational context is a process by which the employees of an organization are helped in continuous and planning to sharpen the capabilities required to perform various functions associated with their present or expected future role, to exploit inner potential of employees and to develop an organizational culture in which supervisor-subordinate relationship, teamwork and collaboration among sub units are strong and contribute to the professional well-being, motivation and pride of employees. The personnel management as the function

of personnel department of an organization has been discussed by considering psyche of employees in terms of personality. At the same time the issue of motivation in modern organization employees has been narrated with examples. The performance in terms of efficiency and effectiveness has been discussed which can be assessed and/or appraised with various means and tools, devices etc. The Human Resource Management in agriculture by agriculture extension for the farmers and extension workers has been discussed from the agricultural development and community development points of view with emphasis on the training for development.

7.5 Exercise for Practice

Answer the following questions in 200 words each

1. What is Human Resource Management ? Explain need for good human resource management in organization.
2. What is motivation ? How does it increase the efficiency of the employees?
3. Enlist types of personality and describe their behaviour in a particular situation.
4. Describe the various aspects related to Performance Appraisal Methods.

Unit 8 : Rural Leadership

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8.1 Introduction

The greatest need of the day is to effectively educate and communicate the information to millions of farmers, who have to adopt the innovations to modernize agriculture. In spite of our best efforts, the majority of rural people tend to resist change, being conservative and tradition bound. They must be made to realize that it is conducive to their own progress and development. The task of changing the outlook of these rural families, acquainting them with new knowledge and orienting them towards the acceptance of innovations, is indeed a difficult task, which a few extension personnel can hardly achieve. Naturally they have to take the help of local leaders. The prime need today, therefore, is for pragmatic leadership – a leadership which can assume responsibility in accelerating the new strategy of agriculture production.

It is generally observed that the developmental personnel have preconceived notions about some fixed characteristics and role of leaders as a result of which they fail to develop the proper types of leaders for the right type of work then, it is necessary

that the right concept of rural leadership should be properly understood by the extension personnel.

After the study of this unit, you will be able to know and understand :

- λ Leadership and its theories
- λ The significance of the leadership
- λ Qualities as well as Traits to be possessed by leaders
- λ Selection and training of leaders
- λ Role of local leaders in agricultural development.

8.2 Content

8.2.1 Theories of Leadership

Leadership is a function of group of activities. It is the group expressing its recognized needs through different persons, who possess initiative and appropriate ability. It is a process of solving recognized problems and directing the activities of the group in the group approved direction. Another way of the perception of the leadership as the concept is that the leadership is the phenomenon of influencing, guiding and directing actions and thoughts of the people in the intended direction. The leader of a group must somehow perceive, what the group wants. He must contribute something that will move the group closer to that goal and his contribution must be accepted before he can be said to have patterned the behaviour of the group. Leadership means the direct face-to-face contact, between leaders and followers. It is a personal social contact. Leadership produces and increases group stability or group change or both.

According to Svinth “Leadership is a combination of concern, knowledge and special vision”. Leaders are persons who are selected by the people because of their special interest and fitness to work on some phase of the local programmes. A leader is one who helps the members of the group as an individual, he accept the responsibility for thinking through problems and working out solutions that need to be discovered.

Theories of leadership

According to Dahama and Bhatanagar (1995) there are four bases that attempt to explain the phenomenon of leadership

1. **Trait Approach** : A person who possesses certain traits of excellence becomes the leader of the group.
2. **Functions** : It is not the mere possession of some superior generalized traits that enables a person to become a leader for all types of responsibilities. But the ability to perform the functions determines the potentiality of a person to be a leader.
3. **Situations** : Under certain circumstances, it is the situation that becomes more important in determining whether or not a person will become a leader. When the situation changed from war to peace, Churchill, who was so successful during war, was shifted from the position of leadership.
4. **Interaction** : It should be clearly understood that none of the above three aspects explain the phenomenon of leadership fully. It is the sum total of these three that provide a better combination for leadership.

As per the origin of leadership there are eight theories of leadership :

1. **Balance Theory** : According to this theory a personality trait does not guarantee leadership balance of optimism and pessimism, balance of versatility and specialization etc. need to be maintained by the leader.
2. **Focalization of Psychic Energy Theory** : According to this a genius by hard work can become a leader. His capacity to perform hard work makes him a leader.
3. **Marginal Uniqueness Theory** : According to this personal magnetism or enthusiasm creates leadership, which arouses lethargic souls. This type of leadership is forward looking and sunny.
4. **Flashes of Insight Theory** : An insight comes suddenly like rays of light. This insight comes out of experience and knowledge. The person who has a deeper insight than his followers is a leader.
5. **The Ability-in-disability Theory** : According to this theory the talent and genius creates leadership.

- 6 **Conjecture Theory** : According to this theory crisis or problem gives creativeness, which creates the leadership.
7. **Group Process Theory** : According to this theory intra-group needs as well as group dimensions shapes the nature of leadership. All leaders of all types are not self made but to a greater degree group makes them great.
8. **Followership Theory** : It is source of leadership and the leadership is a complement of follower ship. There cannot be leadership without followership. To be a good leader one must know his followers and secret of following well.

8.2.2 Importance of Leadership

Leadership is the process of committing a group of people to specific goals. Without leadership, an organization would be what the Sage Valmiki wrote in Ramayana:

“ Like a herd of cattle without a keeper
Like an army without a general
Like a night without moon
Like a group of cows without a bull”

Such would be the country where the king is not seen.

A leader not only commits his fellows to organizational goals, he also pools needed resources; guides and motivates subordinates to reach the goals. Leadership then transforms potential into reality. This role is often seen in giant firms infinity units. In all cases, leadership is the ultimate act that identifies develops and uses the potential that is in an organization and its people. Leadership is not the mere using of people and their potential for realizing an organization’s goals. It has the ultimate aim of raising the level of human conduct and ethical aspiration of both leader and the led. This aspect of leadership is called the transforming leadership. The leader should elevate, inspire and motivate his fellows to higher things of life.

In extension work leaders are visualized as the initiators of action which help group more in the direction it wishes to move. The leader is responsible for integrating and coordinating activities of members of group in their task of attaining goals. In some groups, leaders seem to be emerged spontaneously while in others where a

group is stable and organized leaders are assigned special or definite positions with clear-cut regulations concerning their duties, role, privilege and even their relationship with other members of the group.

The pattern of leadership in Indian villages is still primarily based on heredity and caste structure. In several villages, there are persons who are looked upon and respected because of their knowledge and skills in the particular field. This type of leadership truly leads people namely; educated, persons, ex-servicemen, freedom fighters, teachers, religious persons etc. The second one is political and social type of leadership. After independence, with the establishment of Panchayat Raj system and growth of co-operation in movement form and rural extension programmes a new type of leadership has been evolved which is most significant for rural development at village Panchayats (Block/Talukas) and district level in almost all walks of life of the rural communities.

Necessity of Leaders

1. Leaders help Extension Workers in expanding educational services,
2. Villagers accept new practices better when their leaders adopt them. Village leaders are the part of the village, whereas the extension worker is not. Hence the leadership of local leader is accepted whole heartily.
3. “Working through leaders” gives extension workers greater contacts and acceptance with people and better knowledge of their needs.
4. Using faithful leaders in extension gives continuity of the work, when workers change their position or there is an interruption in the extension workers efforts.
5. Using leaders helps to fulfill the extension principles of involving people in the process of helping themselves.
6. Leaders are needed in generating feed back and follow-up extension practices.
7. Leaders can take the place of paid workers in times of emergencies.

Professional Leaders

We have seen that some leaders are born while others acquire the leadership traits in life. Most of the professional leaders have affiliation to some organisation.

They intend to promote the objects and functions of their organisations. The extension worker is one of the professional leaders who is interested in bringing change in rural life. By application of his knowledge to life, he may come to be a skillful leader. He must know how to stimulate and train members of a group whom he would serve but must allow the leaders from the group to function. If he does not do this, when he moves away, there is no active lay leadership to carry on the work he started. It may be easier for him than for local people to give abstract or unbiased thought to local matters. He must be constantly alert to new ideas and better methods, while at the same time, he is conscious of the practical requirements of the group, he would influence. In this manner, he furnishes the vision and suggestions that often gradually, but not less certainly, cause the group to choose its own leader to aid in setting and reaching a desired objective.

The village level extension worker (Gram Sevak) may lead the people into a free discussion on national agricultural policies and international and economic relations affecting them, or he may pursue his role of showing the farmer how to produce more crops at lower costs. In these cases, if the employed leader undertakes to be the real leader of the group in the advocacy of progressive ideas and methods, he is likely to lose the support of the more conservative members of his group, and it may result in his position becoming an impossible one, so far as effective leadership is concerned.

On the other hand, if he educates local leaders, so that they advance his ideas as their own and assume active leadership on their behalf, the employed leader may maintain his role as educator and stimulator of group thought without centering antagonism on his personal leadership.

The major problem of an extension agent is to determine, who is the natural leader in a group. It is better to accept the chosen leaders of a group than to try to impose others by any pressure. It takes time to do it the right way. Patience is essential. Confidence must be established and often attitudes must be changed. By following this with supervision and leader training the professional leader is on the way of realization of his own role.

Local Leaders

Let us first discover a leader's role. What does he do? How does he work? How do other people regard him? In addition to be a member of the group the position of a leader is an essential mechanism of effective organization. Groups are dependent on leaders and without them they are helpless. Leadership is also associated with responsibility. What the leader does or fails to do directly affects the welfare of the group. The actions of the group also affects the leader. The group usually helps him by according respect and power. Mutual confidence permits the leader wide direction and broad powers. This is a favorable situation for introduction of changes. The members of group expect the leader to speed up the process, which will help them to achieve their common purposes. The local leader is essential for extension staff members. If the village extension worker cannot get the consent or approval of local leaders for a course of action, he must take it as a true guide to what can be done through group they represent. He must then turn to other groups, work with individuals or lay the matter on table.

The function of all leaders includes a certain amount of planning, organization, and teaching. In extension work, we often divide the duties to get greater emphasis and lighten the load of each person involved. For most local leaders in extension there are three aspects to consider (1) The job (2) Relationship with the group and its members, and (3) The leader's own development and satisfaction.

What constitutes successful leaders? The progress in leadership is made by dealing with specific problems. There are two criteria for his success. (1) Is the leader accomplishing the job which he originally undertook? (2) Since the leadership is a group mechanism, what desirable effects of the leadership are shown in the group and in the individuals within the group? Thus, the leadership development in extension work is both means and an end, the rewards for achievement are great.

8.2.3 Qualities and Traits of Leader

A good leader should be progressive in outlook, willing to spare time and resources, accept the responsibility of training the followers, belong to the same group and help the followers to achieve the goal decided by them.

Keeping in view the modern theories of leadership, several characteristics that were associated with the farm leadership in rural areas were identified. Researches have shown that the farm leadership in a progressive village was characterized by mass media exposer, gregariousness and urban contacts; while in a less progressive village it was characterized by farm size, social participation and liberal values. It was also observed in a progressive village that above three characteristics could predict leadership to the extent of 56 percent and in non-progressive village to the extent of 70 percent. Development personnel may keep these characteristics in view while selecting the leader.

Homophily refers to the similarity between a leader and his followers in terms of certain socio-psychological attributes or traits like knowledge, education, socio-economic status etc. and heterophily refers to the differences between a leader and his followers in terms of some socio-psychological attributes, like knowledge, education, socio-economic status etc.

In the progressive village, the leader follower interaction were found to be dependent on their social participation, socio-economic status, knowledge of high crop yielding varieties, knowledge of credit, knowledge of marketing, knowledge of multiple cropping, farm size, gregariousness, urban contact, cosmopolitanism, mass media exposer, contact with extension agency and innovativeness. Hence, one can conclude that leaders and followers interactions were independent of their age, education, conservatism and political affiliation. Hence, the leaders and followers are homophilic with respect to these traits.

In the traits of leaders non-progressive village heterophily existed with respect to age, education, social participation, socio-economic status, knowledge of high crop yielding varieties, knowledge of credit, knowledge of multiple cropping, farm size, gregariousness, urban contact, contact with extension agency and innovativeness. On the other hand, it was observed that leader and followers were homophilic with respect to caste, cosmopolitanism and political affiliation. Therefore, the development agencies could better utilize the existence of homophily and heterophily in order to strengthen the leadership phenomenon in general and Leader-follower interaction in particular.

In addition to above, there is leadership styles which is the typical approach a particular person uses to lead the people. The behavior of the leader exhibits during supervision of subordinates is known as leadership style, style is said to comprise two distinct elements the leader's assumption about subordinates, and the leaders actual behavior while interacting with subordinates. Additionally there are variety of leadership styles such as free-rein style is also called as the laissez-fair, free-rein leaders chooses not to adopt a leadership role and actually abdicates leadership position, generally relinquishing it to some one else in the work group. While technically not a leadership style, it does warrant brief mention since the absence of leadership may have a positive or negative effect.

On the positive side, free-rein leadership works, when the group is composed of highly committed members. On the negative side, it may be stated that the leader abdicates leadership role because of his own incompetence, the fear of failure or the perceived social caste of ostracisation by the work group.

There are also authoritarian style, entrepreneurship leadership style, charismatic leadership, transformational leadership etc. The characteristics and traits may be altered due to the leaders style and may vary according to the nature of leadership style.

8.2.4 Selection and Training of Leaders

In general leaders are selected by the people they represent. Extension workers may select a person to perform a task or do demonstration. Unless the people agree to or approve his doing the task or demonstration, very little attention will be given to it. Results will not be forth coming. On the other hand, if the person selected by the extension worker meets the approval of all, then the value of the task or demonstration will be reorganized. In most cases the leader should be selected at village meeting or gram sabha.

Leaders do not inherit their jobs. The job came into existence and then the man or woman was found to do that job. The first thing to remember is that leadership should be specific. We cannot deal in generalities and make any progress. Assuming there is work to be done, we may use the followings:

1. What is the job to be done?
2. What characteristics and skills does this job require?
3. Where is the person with these qualifications?
4. What group will support or follow this person?
5. Of the qualities he has, which of them may improve by training? Which may not be changed materially?
6. Of the qualities he lacks :
 - (a) Which may be developed by experience and training?
 - (b) Which may be never hope to have?
7. On what basis shall a qualified person be induced to serve?

Unless we proceed in an orderly manner from one step to another, we shall not know where to look for trouble, if our procedure fails. If we are not clear about what needs to be done how can we explain or show a group what knowledge and skills are needed? When we know what qualifications are required, it is easier for the group to find a leader. This human problem is complicated by the fact that some qualifications can be acquired and others are largely inherited.

For example some of the basic personality characteristics desired in youth club local leader are health and energy, intelligence, friendliness, dependability, courage, politeness etc. These may be found readymade. Other characteristics may be acquired or improved by training and experience. These may be such as subject matter content, knowledge, enthusiasm or singleness of purpose, ability to teach or stimulate others, ability to organize, to delegate, to plan. When group comes to actually enlisting such a person, other factors may have deciding influence for him.

Leadership may originate with an individual, a group, or a job to be done. A person may see some problem that interests him or catch a vision of some improvement, he thinks is needed in the community. Moved by the interest he takes a few steps, and others begin to follow him. Perhaps there is a group organized or unorganized which recognizes a need and wants some action. It chooses a leader and gives him responsibility to do something about it. When job needs to be filled we have favourable situation for good initial leadership because the qualifications for the job are apt to be foremost. This is a healthy basis of origin. In extension work

we have a good medium for speeding up this process. Extension staff members are constantly bringing problems, jobs and qualifications to the attention of people who in turn choose and support leaders. Studies show that leaders selected by their neighbours are better known than those selected by other methods.

Leadership Development and Training

Experience shows that there is a potential and resourceful leadership available for extension work in the communities, if it is stimulated and used. Persons who have served, as leaders in extension have not only increase their ability and knowledge in farming and home making but have gone further, giving leadership in other community activities. Occasionally such leadership has served as a stepping-stone to political leadership.

There is a need of continuously teaching a clear conception of organization setup of which leaders are part, new members and leaders are always suffering from an assumption on the part of their associates that they know things, when they really do not know. It may be flattering but it is not comfortable for the new leader or good business from the standpoint of getting results.

A few devices for training are suggested here as under :

1. Training meetings (a) to teach principles, (b) to give practice in conducting meetings or interviews
2. Handbook for leaders
3. Occasional circular letters and personal letters
4. Regular service letters for leader
5. Printed leaflets, bulletins or books
6. Visit to the leaders by the extension agents
7. Apprenticeship : (a) substituting for and assisting other leaders (b) performing selected tasks under instructions and observations, such as presiding over the meeting
8. Participation in discussion of all kinds

General suggestion for extension workers to observe in training local leaders have been prepared.

In training leaders, basic principles of the psychology of adult learning should be observed. The reasons are :

1. Less acute vision and hearing
2. slower action time
3. greater reluctance to learn and
4. increased fear of failure.

8.2.5 Local leaders in Agricultural Development

Rural leaders furnish local guidance, information and support in planning, executing, financing, and future extension work. The extension service undertakes to develop a agricultural program combining the knowledge and skills of local people. The extension staff is organized to enable the people to utilize all resources and facilities to carryout the program. The rural leadership is a definite part of the extension organization. Hence the local leaders need to be sponsored in the extension organization. The sponsorship is furnished by rural leaders either formally or informally depending upon the State law dealing with extension work. The principle to remember is that extension work is a partnership enterprise.

There are usually four types of local leaders namely; traditional leaders, caste leaders, political leaders and functional leaders. According to B.N.Sahay (1966) the traditional leaders and emergent leaders are very effective in influencing the changes in rural area particularly in agricultural sector. S.V.Reddy (1972) identified agricultural leaders, social leaders and agro-social leaders. It was found that the agro-social leaders were found quite effective in using the technological change in the field of agriculture.

Role of Farm Leaders

The role and expectations of farm leaders in view of the new strategy of agricultural production were ascertained from the experts in agricultural extension. By working out the index of the census that following roles are expected to be performed by the farm leaders in view for the new agricultural strategy:

- (a) Raising demonstrations plot and showing it to others.
- (b) Keeping themselves abreast of the improved agricultural practices.

- (c) Organizing meetings and other discussion groups.
- (d) Serving as the marketing advisers.
- (e) Supplying the improved seeds to the farmers.
- (f) Assisting the farmers in getting credits.
- (g) Serving the innovative farmers in the village.
- (h) Adopting themselves the improved agricultural practices.
- (i) Educating the farmers to grow more crops in a year.
- (j) Acting as liaison officers between extension workers and the farmers.
- (k) Educating farmers in the latest agricultural technologies
- (l) Helping the fellow farmers in getting the needed agricultural inputs.

It was, however, observed that most of these roles are not performed by the leaders, Hence extension workers should motivate them for performing the these roles enumerated above and helps in strengthening the new agricultural strategy.

Leaders and group functioning are inseparably linked with each other's. There cannot be effective leader unless there is a functional group, that he is leading, and surely a good functional group does provide fertile ground for leadership to appear and develop.

8.3 Glossary

Leadership : It is a function of group activities expressing its recognized needs through different persons who possess initiative and appropriate ability.

Leader : A leader is person who helps the members of the group as an individual; he accepts the responsibility for thinking through problems and working out solutions that need to be discovered.

Trait : It is the characteristics of a person may be overt or covert in nature.

Selection of Leader : It is opinion of members of group or community whether to vote for a person to be elected or selected. It is concerned to groups for acceptance of a person for attainment of goal.

Role Expectation : It is the expected work to be done by a person for a group or society for its development.

Agricultural Development : It includes the physical, demographical and biological development concerned to crops, live stock, natural resources like land, water, energy etc. for agricultural production.

8.4 Summary

Leadership as the process of expressing the aim of the group through its selected and discovered personal activities towards which effort of a person approved are diverted for his members. There are types of leaderships based on the theories from which a leadership is emerged. These include the theories of balance, marginal uniqueness, flashes of insight, ability-in-disability, conjecture and group process.

The importance of leadership cannot be questioned. It can be said where there is a group with purpose(s) there is a leadership, which keeps the group dynamics. In the extension work for the development of community, leadership is essential to lead the followers. Where there are followers there are leaders to whom there is a faith on their leaders. The roles of professional and local leaders are defined and enlisted with their expectations and existence in the functions relevant to the extension work for community development and agricultural strategies emerged due to the research efforts. The process of selection of the leaders having their basic characteristics has been narrated for the discovery of the leaders and their development through training to attain the job or organizations, or problem solutions. The pattern of farm leadership with the expected roles has been discussed for attaining the welfare of the farming community.

8.5 Exercise for Practice

8.5.1 Answer the following questions 200 words each.

1. Enlist and describe the theories of leadership.
2. State the need of leadership for rural development.
3. Describe the process of discovering and developing leaders in rural area.
4. Describe the role of farm leaders in agricultural development.

Unit 9 : Training Models and Methods

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9.1 Introduction

In explaining the education for development A.T. Mosher 1966 stated that “for education and training to be an accelerator for development of agriculture, it is necessary to have an inquiring mind coupled with confidence about solving the various problems and scientific habits of thoughts and action. Education is important for adults on their farms and in their villages. Agriculture requires that people should keep on growing knowledge through out their life active career” Thus, the planning, development, implementation and evaluation of the education and training programs are the primary concern of agricultural and auxiliary institutions.

After the study of this unit, you will be able to know and understand :

- λ Importance, Needs and Phases of Training
- λ Training Modules and Models
- λ Types, Techniques and Methods of training
- λ Evaluation of Training

9.2 Content

9.2.1 Importance and Need of Training

Training is an emerging discipline and fast growing enterprise in agriculture and rural development. The waves of technological changes have fuelled growth of training in industrial sector. Above all, training is now being viewed as a major catalytic force for augmenting human productivity in all spheres of development. Rural development in India, calls for a gigantic training intervention to equip both the personnel and the beneficiaries for effective implementation and utilization of development programs. It is note worthy to mention that training of personnel had received top priority right from the beginning of Community Development Project. In course of past five decades, a vast training infrastructure consisting of National Academy of Agriculture Research Management (NAARM), National Institute of Rural Development (NIRD), National Institute for Agriculture Extension Management (MANAGE), State Institute of Rural Development (SIRD), Extension Education Institutes (EIs), Extension Training Centers (ETCs), Gramsevak Training Centers (GTCs), Farmers Training Centers (FTCs), Krishi Vigyan Kendras (KVKs), Trainers Training Center (TTCs), etc. have grown up. Personnel training in agriculture has received further boost in the reorganized agriculture extension system popularly known as Training and Visit System. However, farmers' training is yet more crucial looking to the vast rural population, illiteracy, malnutrition and productivity gap on one hand and rapid technological advancement on the other hand.

Training for Agriculture Development

Agriculture development is one of the most important aspects of development strategy in the country. While the country experienced substantial increase in food production in past few decades following green revolution, there are a number of crops and regions as well as target groups lagging far behind. Thus, the role of technologies appropriate for diverse target groups with various agro-ecological and resource characteristics is crucial as detailed below:

1. The resource poor farmers, who form about one third of total rural population of the country, are dependent on agriculture, practiced under difficult conditions characterizing poor, erosion prone soils, dryland, undulating topography etc. It requires different approach to provide appropriate technological solutions to widely varying situations. That is why, there is clarion call for an alternate approach called farming system research and extension or participatory technological innovation and dissemination.
2. The recent waves of economic liberalization have their implications for large commercial farms in order to produce value added products for export.
3. There is a growing need for holistic approach to farming system including agriculture, animal husbandry, poultry, fishery, farm forestry etc. for comprehensive development. Profitable mix of various enterprise need to be evolved for different socio-economic and agro-climatic conditions.
4. Above all, the depletion of natural resources due to faulty practices and harmful technologies are causing serious concerns. Environment pollution due to over use of chemical fertilizers and pesticides is threatening ecological balance. Thus, there is a need for raising greater consciousness for all concerned and search for alternate approach.
5. Extension personnel, the agents of change, needs to be updated in newly emerging technologies for different target groups and areas. At the same time, they must also be trained in communication as well as training and managerial skills to be able to manage the process of participatory technological innovation and dissemination. It will require reversal of attitudes to treat indigenous knowledge and experience of farmers with respect and encourage with their active participation in search of technological solutions. No doubt, the subject matter of training will vary according to level of extension personnel viz. senior, middle or grass root level extension workers.
6. Farmers on the other hand need training not only in appropriate technologies but also in entrepreneurship and leadership skills in order to apply fruits of training in farms and communities. Thus, farmers need knowledge, skills and attitudes to bring about desirable changes in agriculture production.

7. Training alone cannot bring results unless matching resources and supporting environment are provided.

In view of the above, the role of training is manifold not only in the field of agricultural technologies as in past but also in social, managerial, and behavioural technologies as well.

Need for Training

Rapidly changing economic environment in the developing nations have caused increasing competition for survival in the corporate sector. There is a constant effort to innovate products, introduce new marketing strategies and acquire new technologies in order to benefit from economic liberalization. Training which was considered as a side activity until recently has certainly received a flip. Factors responsible for this growing interest in training are given as under:

1. **Accelerated growth of knowledge** : The stock of knowledge is increasing rapidly so much so that the volume of what is to be learnt doubles every seven years. It is, thus, essential for survival to continuously update knowledge through training, seminar and self-study. It has become a survival strategy in order to remain competitive.
2. **Sweeping technological changes** : Sweeping technological changes in all spheres of life and work call for adjustment through development of abilities. Electronics, computers, office-automation and tele-communication entail wholesale changes in commercial and academic organizations. New trends are emerging. The emergence of information technologies has influenced business and industries radically.
3. **Organizational changes** : As a result of changes in technologies organizations have to alter their practices and systems to evolve to new. Effective organizations are now becoming more participative, open and communicative by creating effective terms and nurturing special talents of the employees through training. Such changes require new mind set, work-culture, attitudes and abilities.
4. **Innovations in training** : The craft of training itself has entered a new phase. The advent of multimedia, interactive video and many other technologies have

given flexibilities to choose learner-friendly mode of instruction to suit clientele needs. The ability to quickly disseminate high quality training to all corners of geographically wide-spread organization is possible now.

Thus, training is indispensable for any organization irrespective of its type, viz. commercial, non-profit or service sector. Professionals dealing with development need to be equally adopt a training skills to help clientele learn to adjust with the changing technological and social situations.

9.2.2 Phases of Training

The training system can be divided into various phases. The details of each phase is discussed in the following lines.

Phase I : Training Needs Assessment

The Systems Approach to Training (SAT) develops individual systems by first posing the basic question : What is the performance problem ? If the answer is the gap between the standard and the actual job performance by extension personnel, it asks the next question : What is this gap which is required to be overcome by training ? In other words, what are the training needs of extension personnel ? The training needs are assessed as objectively as possible, drawing a clear distinction between 'actual' and 'imagined' needs of extension personnel. The training needs are assessed at 6 levels of aggregation, namely (i) Individual (ii) group (iii) Organizational (iv) State (v) Regional and (vi) National levels. A number of methods for training needs assessment are available for different levels of aggregation. Two critical parameters circumscribe the training needs assessment exercise. The first is the national production priorities, laid down by policy makers and planners. e.g. which crops to be grown and in what quantity . The training needs have to be assessed within the ambit of national priorities and programs. The second is the farmers felt needs for training. It is essential to realize that farmers felt needs for training lay the foundation upon which the training needs for extension personnel are required to be assessed.

In training need assessment, the role of Ministry of Agriculture (MOA) and the state departments of agriculture (SDAs) is noteworthy. The MOA is required to

assess the training needs of extension personnel at national and regional levels, whereas the SDAs are required to assess the training needs of extension personnel at state, Organizational, Group and individual levels. The training need assesment can be perceived as a system consisting of 4 distinct sub-systems, namely (i) National Production Priorities , as laid down by policy makers and planners (ii) farmers felt needs for training (iii) Operational agencies of MOA and SDAs and (iv) Levels of Aggregations of extension personnel for assessment of training needs.

Phase II : Development of Training Plans

After assessment of training needs (Phase I), appropriate training plans are required to be developed in the second phase . A training plan is a man power document developed on the basis of assessed training needs of extension personnel. It takes into accounts the existing man power stock, projects man power needs for future and quantifies the training requirements. On the basis of assessed training needs for each category of extension personnel, which indicates the dates, duration, subject and the institution for training.

A training plan can be Short term plan and Long term plan or both. While an annual training plan is an essential requirement of sound training management, it is desirable that training plans are developed in, say, 5 year framework. The singular advantage of developing training plans in 5 year framework is that management will have a reduced task of undertaking an annual review only, enabling it to devote more time to other aspects of training management , which will enhance the value of training.

A training plan can be territorial (e.g. National / State / District), sectoral (e.g., Agriculture, Horticulture, Animal Husbandry), project related (e.g. A comprehensive agricultural development project, which cuts across several sectors), special plan (e.g. Training of new recruits to extension service) or a combination of these. Experience shows that territorial plans, which are multidisciplinary and multi-institutional, are developed best unless there is a special requirement of training for a specific project.

Phase III : Design of Training Programs

In the 3rd place, appropriate training programs are required to be designed after training needs assessment (Phase I) and in accordance with developed training plans (Phase II). Before Undertaking the design of training programs, however it is essential to select an appropriate training institution for training . An hierarchy of extension training institutions are available in India for different levels of extension personnel from Krishi Vigyan Kendra for village leaders to MANAGE for senior extension specialist.

Starting point in the design of a training program is a statement of its objectives. The objectives should be stated clearly and in simple, stateforward language. The use of Jargon should be avoided. The objectives should not be more than 4 to 5 in number. The next step is the determination of an appropriate mix of various skills required by the extension personnel. Broadly, the generality of extension personnel require three types of skills, namely, (a) technical, (b) human and (c) conceptual skills. The mix of these skills will be different for different levels of extension personnel. Weights can be attached to different skills for determination of mix. For example, the mix for Village Extension Workers can be 50 per cent human skills and 10 per cent conceptual skills.

Following the ‘Concentric Circles Approach to Curriculum, then can develop appropriate curriculum’. Under this approach there are three concentric circles, the inner circle (priority 1) of what must be known, the middle circle (priority 2) of what should be known, and the outer circle (priority 3) of what could be known. It is imperative that the curriculum concentrates upon the inner circle of what must be known and does not drift to the outer circle of what could be known, as it very often happens in practice.

The selection of an appropriate training method is the next step in the design of a training program. An array of training methods is available suited to different training objectives and to different levels of extension personnel. As a general rule, a mix of training methods is preferable to only one training methods, and the entire program must have a problem-solving practical orientation. Practical assignments

and providing adequate opportunities to trainees for interaction will enhance the utility and receptivity of training.

Training technology now offers a number of training aids which can increase and reinforce learning. These include a number of visual aids (like chalkboard, flip chart, plastic writing board and overhead projector), and projected aids (like slides, film strips, slide projectors and video tapes). In addition to audio-visual aids, LCD projectors and computers are also emerging as powerful training aid. The recent advances in computer and television enables a lecturer to simultaneously address students in number of separate halls and able to interact with the students in each hall. This instance shows enormous potential of new technology. Suffice it to say that variety of training aids are required to be used in a training program, which will sustain the interest of trainees in message receptivity.

With a view to making training an enduring exercise, supporting training material is also required to be developed simultaneously with a training program or separately as a training input. The former category includes lecture notes, supporting leaflets and bulletins, and as is usually the case, a compilation of course material. In the latter category fall specially developed training manuals and handbooks which can either be used in a training course or used separately by trainees on their own. The design of training system can be said to consist of six sub-systems, namely, (i) Training Objectives, (ii) Skill-Mix, (iii) Curriculum Development, (iv) Training Methodology, (v) Training Technology, and (vi) Supporting Training Material Sub-systems.

Phase IV : Training Program Implementation

In the fourth phase, the training programs are required to be implemented, after training needs assessment (Phase I), development of training plans (Phase II), and design of training programs (Phase III). This phase has two aspects namely : (a) Training infrastructure and (b) Actual implementation of Training programs.

In its turn, the training infrastructure includes (a) a network of training institutions for meeting different training requirements of different levels of extension personnel, and (b) models and management of training institutions.

A network of extension training institutions has been set up in India for meeting different training requirements of different levels of extension personnel, ranging from fortnightly training sessions and monthly workshops at farmers training centres, MANAGE and Advanced Centers of Training (ACTs). Similarly, different models of training institutions ranging from departmental training schools to statutory or registered societies have come into being. These models govern the mode of functioning of these training institutions, which have direct bearing upon the management of training institutions. The training institutions in India exist in 5-tiers (i) National level (ICAR Research Institutes/ ACT/ MANAGE), (ii) Regional level (EEI / TTC), (iii) State level (SAU / STI), (iv) Divisional level (ETC) and (v) Sub-Divisional level (FTC / KVK). These provide special and regular training to different levels of extension personnel in India.

The actual implementation of training programs is the responsibility of training institutions, or more precisely, the Project Directors and many course Coordinators. Many training programs found with poor implementation, which usually reflects lack of preparation. Use of checklist and alertness to respond to an emergency (like non-appearance of a resource person in time) can prevent occurrence of many avoidable mishaps. A wise word of counsel or is not to take anything for granted and to personally ensure that things are in order.

Phase V : Training Monitoring and Evaluation

In this last fifth-phase, training is required to be monitored and evaluated, after training need assessment (phase I), development of training plans (phase II), Design of training programs (phase III) and Implementation of Training program (phase IV).

Training monitoring is relatively of greater practical importance than training evaluation though yet it is to be assigned such an importance in training management. Training monitoring should through well developed training monitoring indices like number of training course planned and held every month, number of seats planned and utilized and state-wise allocation of seats and their utilization. Training monitoring is required to be undertaken at different levels of training implementation from

fortnight Training session and monthly workshops to national training courses. The training monitoring indices will also differ from level to level. This indices should be regularly brought to the notice of top management, so that it can intervene to correct a situation.

Different types of training evaluations are available like planning and process evaluation, terminal evaluation, impact evaluation and outsider evaluation. It is necessary to keep ambitions modest in training evaluation. A two-party evaluation of training by trainers and trainees followed by an annual review by the top management can considerably enhance usefulness of training course.

The Training, Monitoring and Evaluation system consist of two sub-systems of (a) training monitoring which is based on development of appropriate training monitoring indices for different levels for use by top management, and (b) training evaluation of different types to meet different types of training objectives. Suitable changes in training approach can be made as and when necessary, on results of training monitoring and evaluation.

9.2.3 Training Modules and Models

Training primarily involves the content or what is to be taught and the method of communication. The first step in this direction is the formulation of syllabus.

Syllabus

According to Conningham, syllabus is a tool in the hands of the trainers to mould his material according to objectives of training on the training center for determining any particular course of training. The first step is to understand clearly the objectives and formulate the course content (syllabus). Training objectives particularly in vocational or pre- vocational subjects, should be stated in sufficient detail to serve as a broad base for selecting a course of training. The course content or syllabus is helpful in the training programme in the following ways :

1. To help the trainers to acquire a content of useful knowledge which the person expected to communicate to the villagers with whom he/she works.

2. To develop in the trainee an understanding of the method of transmitting knowledge, encouraging participation of people in the program at local level.
3. To develop the trainee a high moral and instinct in him a deep sense of mission for village development. It is obviously that in the formulation of syllabus or course of study these objectives have to be kept in view and a proper balance to attain best results.

A course of study includes the organization of the content keeping in view of the objectives of teaching and training. In the organization of the content the amount of time to be used and when it is to be used are also considered. In other words, the course of the study embodies teaching objectives, time assignment of selected content, and the means or methods to be used in teaching and training. Thus, in essence, it includes the outline of subject in which knowledge and training in theory and practice are intended to be imparted in given period. It embodies the guiding points on the subject include to meet the basic requirement of the various aspects of the training course. Accordingly the components of the syllabus are so determined and organized as to contain relevant information with respect to the intended training. It is, therefore essentially a means to an end.

Role of Syllabus

Syllabus should serve the following functions in the training programme.

1. It should serve as the blueprint both for instructors and trainees, supply information about the training to be imported.
2. It should help the instructors to know the content of the course in more precise terms in order to enable them to plan their instructional programme in advance and to anticipate the needs of the learners (trainees) and their own in the shape of reference material, teaching aids, supplies for practicals and other requirements.
3. It should bring uniformity in the standard teaching and training, working and procedure of training with the course such as regional adjustment are necessary, so that ultimately the training centers are able to produce the extension workers, having a basic understanding of the community development programme and

common goal and purpose to fulfill the needs of the rural community.

4. It should indicate the priorities and weightages to be given to specific items in different subjects to be dealt with during the training period.
5. It should prescribe procedures for examination to test the knowledge of trainees at the end of a course.

Course Outline

A course outline is in fact, a systematic split-up of the subject syllabus into convenient units to be covered within the specific period. An effective course outline takes into account the jobs, the seasonal and local requirements, proper weightages and priorities to be given to different items included under the subject, and the logical sequence in which the material is to be presented. The primary objective of preparing an effective course outline is to provide for the trainees, an accurate and logical sequence, the learning experience, via knowledge, skill and attitude that they need for effective discharge of duties. Thus, it helps in better organizing the training programme, collecting the needed materials in a systematic and planned manner. A course outline is, in fact, the skeleton on which whole mass of teaching rests. The need for preparing a course outline in any training programme can, therefore, hardly be over emphasized.

Lesson Plans

After the course outline, the next step is to draw up a plan for teaching which may be called preparation of lesson plan. A lesson plan is not merely a means of drawing out facts “It can be an occasion for learning, for thinking and for understanding. It can provide generous scope for the self activity of the pupil directed, guided and stimulated by the teacher.” A good teacher carefully plans his instructional programme for maximum educational attainments. The following three considerations largely determine the success of a lesson.

- (1) Preparation of subject matter by the teacher.
- (2) Effective presentation of the subject matter to the class.
- (3) Self-effort on the part of the trainees in learning what is presented to them.

The lesson notes prepared by teachers, fully indicate the steps, which he intend to follow in his teaching. “ A lesson plan, therefore, is a statement of the aim to be realized and the specific means by which they are to be attained as a result of activities during the period the class spends with the teacher.” A lesson plan consists of flexible arrangements, procedures, and methods of action for achieving educational objectives, which the teacher considers desirable.

9.2.4 Types, Techniques and Methods of Training

There are different types of training based on the nature of trainees namely; officers training, gramsevak / gramsevikas training, local leaders training, farmers training including male and female farmers training, youth training and so on. The training can also be classified as pre-service and inservice training.

- 1. Pre-service Training** is the training to the extension workers prior to joining the job. This may includes education at high school, college, and post graduate training may be agriculture, horticulture, veterinary, home science, agriculture engineering, fisheries, forestry, etc. and the specific training at training center (Gramsevakas Training Center) for village level workers, nurses training center in health sciences or family planning etc.
- 2. In service Training** is for improving the ability of the extension workers or keeping him abreast of the latest knowledge or giving him some specific training in the new job which he is require to do. This may be for orientation of the new workers with the new job to be done, Induction training, job training and conferences, seminars, workshops etc.

Training of Villagers and Professionals in Subject Matters

This covers the training of farmers, farmer’s son, an auxiliary course for poultry keeping, bee keeping, dairymen, kitchen gardening, and fruit and vegetable preservations etc for village people as well as urban people. Additionally, the ministry of Agriculture and Irrigation organizes trainings through Agricultural Universities, Rural youth programmes are conducted by the farm universities. Peoples action for development of India, Indian Council of Agriculture Research and Department of

rural development organize different types of the training for officials, scientists and village leaders. The details of the training programme conducted by the Directorate of Agriculture will give an idea of the various trainings imparted by the directorate. The directorate of extension takes up the following training programmes for farm youths.

1. Training to young farmers clubs around extension training centers.
2. Training of youth farmers in districts.
3. Training of youth farmers through voluntary organizations.
4. International farm youth exchange programme with USA.
5. International farm youth exchange programme with countries other than USA.
6. Exchange of farmers within country.
7. Regional rural youth staff and leaders training workshops.
8. People's action for development in India (PADI)

The Indian Council of Agricultural Research (ICAR) organises training for farmers and extension workers in the country through Krishi Vigyan Kendras (KVK). The trainers of the KVK are trained in Trainers Training Centres (TTC) located in the country. The main objectives of these trainings are given below :

1. KVK impart learning through work experience and are concerned with technical literacy, the acquisition of which does not necessarily require as the pre-condition the ability to read and write.
2. KVK impart training only to those extension workers who are already employed or to practicing farmers and fishermen
3. There is no uniform syllabus for the Kendra. The syllabus and programme of each Kendra will be tailored according to the felt needs, natural resources and the potential for agricultural growth in that particular area.

Techniques and Methods of Training

It was reported that following methods were mainly used in imparting the training contents i.e. lecture followed by question and answers, group discussions and demonstrations, audio-visual aids were also used in some training camps. Exhibition as an aid to training was monitored by block officials. In commenting on

training methods Batten (1962) stated that there are several training methods and it is important to recognize that no one method is inherently better than the other. A method or combination of methods found suitable for training purposes in one phase may not be suitable in another. He further suggested that it is useful to distinguish between categories of training methods and to assess the value and appropriateness of each category in relation to different purposes of the training. Directorate of extension, Ministry of food and Agriculture, Community development and Co-operation, Government of India (1968) suggested a guide line on farmers training programme. It includes the following suggestions :

1. Lectures, group discussion, demonstration, and practicals should be arranged in such away as to make the programme interesting to learners.
2. Class-room teaching methods be confined to not more than one third of the training period
3. Two-third of the time should be allotted for practicals

The Evaluation Committee on farmers training (1969) has recommended that present institution based training should make way for the audio-visual techniques. Programme Evaluation Organization of planning commission (1961) studied the teaching methods and training techniques that were used in Gram Sevak training programme. It has reported that the following training methods were mainly used in imparting the training contents. Lectures constituted the most frequently used medium of instruction. The trainers should use proposed training methods by taking into consideration the nature of technology involved in the subject matter content to be taught. They are also be advised that required sequence of training methods to be used while training the farmers, may be decided on the basis of subjects to be taught to the trainees. In the above study, the proposed training methods were selected and used were :

Lecture with visual aids, blackboard, flash card, specimens and models, Group discussion, Demonstration (methods and result), Field trips and Film shows. The trainers were provided with the guideline about the use of these methods and requested to prepare the lesson plans according to the given guideline in respect of the use of proposed training methods in training of farmers.

9.2.5 Evaluation of Training

Evaluation of training refers to systematic collection and analysis of information to decide the effectiveness or utility of training. Training organization need to justify their courses. Trainers need evidences to show usefulness of the contents and methods being used by them. Above all, training must lead to change. Thus, measurement of change and benefits is the ultimate test. There are four major concerns in evaluation of training.

- λ To point out strength and pit falls of on-going training.
- λ To gauge reaction of trainees about different aspects of the programme
- λ To measure behavioural gain i.e. the change in knowledge, attitude and skill.
- λ To indicate overall impact of training on work-output and organization.

Types of Training Evaluation

Evaluation is continuous process. Evaluation of training programme should be conducted at different stages in order to provide necessary information. In fact, the process of evaluation should begin much before the training is started so that characteristics of participants and their organizations are revealed. Next, the reactions of audience and progress of programme should be monitored. Of course, assessment of training at the completion of programme is essential to know the learning out come. The acid test of effective training is linked with the extent of application at work is conducted before starting the training. Thus, there are four types of evaluation to be conducted as detailed below :

- (a) **Context evaluation** : The question here is how do we determine the content and the methods of training ? The priority areas of training can be decided on the basis of evaluation of characteristics and needs of participants and their organization. Assessment of participant's existing values, skills and knowledge before entry is called as context evaluation. This covers assessment of needs and methods of training.
- (b) **Process evaluation** : Process evaluation is conducted during the training. It is a method of obtaining the feedback from participants and other involved in

training regarding the progress of the whole process. The important questions to be investigated are as follows :

- λ Is training is moving as planned?
- λ If not, what are the lapses?
- λ Are participants satisfied with various aspects of programme?
- λ How many of them feel dissatisfied and why?

The purpose here is to predict problems in the way training being implemented so that defects can be rectified. This is also called as formative evaluation to help in day-to-day decision-making regarding training.

- (c) **Terminal evaluation :** Terminal evaluation is conducted at the close of training. This is concerned with measurement of gain in different aspects of learning i.e. attitude, knowledge, and skills as a result of training. This is conducted immediately at the end of training. The evaluation can be compared with participant's status immediately before entering into training. The important question raised is what is the extent of gain for most participants? The answer indicates the immediate learning benefits.
- (d) **Impact evaluation :** Impact evaluation assess changes in on-the-job behaviour as a result of training. It is a way of finding out how much of the newly learnt skills / values/ knowledge finds application in the work place. What concepts / values / skills are most relevant? What are the reasons for non-adoption? Impact evaluation after lapse of time about overall changes. Does adoption / application of concepts / skill affect the organization as a whole? If yes, to what extent? If not, why not? In fact, this is an ultimate evaluation of the cumulative effect of training on organization.

Methods of evaluation

In order to assess merits of training, we may use various techniques. While the degree of objectivity and utility of method might vary from method to method, useful conclusion can be drawn through such evaluation.

- (a) **Pre and Post-test :** One of the most common questions trainers and sponsors or funding agencies are equally interested in is 'what did the participants learn?'

Was there any significant gain in knowledge as a result of training? It is quite easy to design written test containing items to be covered during training. The major concept areas should be identified for framing appropriate questions. The questions chosen must match with the objectives of training. Questions designed for test should be verified with regards to language, comprehension and content validity. Thus, a written test can be conducted prior to starting of training. Similar test has to be given at the completion of training. The difference between two scores can give a reasonable idea about gain in knowledge due to training.

- (b) **Opinion and reaction of participant about training :** Another important question worth investigating during evaluation related to the participant's reactions on various aspects of programme, training material, relevance of content to participants job, quality of instruction, routine, boarding and lodging etc. It is quite easy to tabulate responses if reactions are taken on the rating scale. There can be different approaches to obtain participants' opinion. First trainers may use quick reaction sheet, which require just rating against given items, which can be used in each session of training. An overall reaction can be taken at the end of training. Open-ended questions can also be asked from participants to explain reasons for their reactions
- (c) **Observations :** It is a less precise but quite valuable tool to describe strengths and weaknesses of training. A team of observers should be decided ahead of time. They should develop the checklist of thing to observe and record. In case of on-going activities with relative fast pace, the observation sheet should be so designed to facilitate quick recording of event. Training techniques, participant's reactions, training materials, trainers behaviour, logistic arrangements etc. can be observed and qualitative data can be used to record actual events for further analysis.
- (d) **Skill test and Practice session :** Practice session can be organized to assess use of skills and techniques learned due to training. In order to make objective assessment about extent of skills gained, the critical areas of skill can be identified and weightages can be given to each area according to their

importance. Each participant may be given opportunity to practice and performance may be judged on pre-designed score sheet. This will give idea about mastery of skills.

- (e) **Measuring impact :** The ultimate effect of training can be measured in terms of performance in field situation and increased productivity. However, it is essential that participants get opportunity to use knowledge and skill. They should be motivated to improve performance and feel convinced that training is beneficial for them. Performance can be assessed by observing work behavior in the field. A comparison should be made between those trained and others who have not received training but have similar characteristics.
- (f) **Oral evaluation :** It is quite common to gauge reactions of participant through questionnaire. Such reactions do not indicate the reasons the people have for varying responses. Oral evaluation can help in articulating views, emotions and recommendation of participants. Some well-organized international training courses label such sessions as 're-entry lab' as if the participants are going through the whole training process. Once again and making their observation and comments. The trainer may use blackboard or flip chart to record information. The participants are given a brief introduction of this session. It is indicated that the purpose of sharing of experiences and not criticism to blame or fixing responsibilities. Everyone may have his unique feeling; experience or interpretation and they are valuable inputs for the training organizer to know. A relaxed atmosphere is created to everyone to speak out. The actual evaluation starts like conversation are raised, as given below:
- λ Ask everyone to narrate the events, people or activities perceived as important or unimportant
 - λ Ask them to identify high and low points of training, what were the events most liked? When did you feel at the tops? What were the events that depressed you? What were your exact feeling at the encounter?
 - λ If you recognize the training, what experiences must be provided? What activities should be deleted? How programme be made more lively?

- λ What are the problems that should be solved? What parts of training needs more improvement?
- λ What according to you are main benefits from the training? How will you use this training back in the job / organization? Do you see any problems in applications? What problems should be taken care of immediately?

Listen to the differences in reactions. Ask for explanations and reason for points that are not clear. Lead to consciousness about overall perception. Conduct the session in friendly manner. Do not defensive. Encourage self-introspection. Let everyone speak. End with thanks

Tips for systematic evaluation of training programmes

- λ Systematic evaluation requires pre-planning. Constitute an evaluation team to work on designing evaluation proforma, observation sheets and execute them.
- λ Practice scientific planning of training courses and including objectives, methods, and session-by-session details in order to help in comparing later with achievements.
- λ Maintain records on participants background characteristics, benchmark or every level behavior and needs. Keep separate file for each course. Observations of trainees about training and events should be kept at appropriate place.
- λ Involve a number of different partners of training in evaluation viz., Trainees, participants, member from training organization, member from work organizations etc., to collect suitable evidences
- λ Use a combination of methods to conduct evaluation. Questionnaire or observation alone are not sufficient, complete them with oral evaluation.
- λ In technical training programme, conduct skill test in the presence of experts.
- λ It is good to ask trainees to write a report on his experiences. Participant may also be encouraged to plan how they will use training back home.
- λ Make it a point to prepare report for each course.
- λ Training organizations should treat a regular system for discussion on evaluation report to make necessary changes in the course programme.

9.3 Glossary

Training : It is to educate a person to make him proficient in doing the job.

Training of Employee : It is the process of aiding employees to gain effectiveness in their present or future work through the development of appropriate habits of thought and action, skill, knowledge, attitude.

Knowledge : It is the body of subject matter based upon facts and generalization of the scientific experimentation.

Pre-service Training : The training to the extension workers before the job.

Training Process : It is the sequential activities converted into phases i.e. preservice training, inservice training, and post service training

Training method : It is the process by which different activities are depicted with extension tools.

Evaluation : It is studying the achievements of teaching process in relation to educational objectives.

Training Need : It is difference between what is and what should be. Training need means difference between the current level of performance and desired standards expected from the person.

Syllabus : It is a tool in the hands of a trainer to mould his material (trainee) according to ideals (objective) of the training programme.

Course Outline : It is a systematic split up of the subject syllabus into convenient units to be covered within the specific period.

Lesson Plan : It is an activity which provide scope for self-activity of students directed, guided and stimulated by the teacher. It is the course content to be covered in each lesson.

9.4 Summary

Education and training for development are the accelerators of development of agriculture, industry, health etc. in the community development programme. In imparting training, one has to go through different phases such as pre-training for

preparation, training for implementation and post training for follow up activities. There are training needs in respect of activities in action form or for knowledge development in human development. The training process involves five elements namely trainer, trainee, physical facility, subject matter, and the training methods. Each one helps in creating teaching and learning situation for human development. Thus the training content to be taught should be divided and acted upon. The syllabus, course content, lesson plan etc. help in conduct of the training.

Different types of training are discussed which are meant for professional improvement of the official, non-official, farmers and their family members. Most of the training programmes are organized by governmental agencies and non-governmental organizations. The training evaluation has been explained for assessing the effectiveness in terms of the desirable change in behavior of the trainees and training impact in term of action and adoption.

9.5 Exercise for Practice

Answer the following questions in 200 words each.

1. What is training ? Explain need and significance of training for agricultural development.
2. Enlist and explain different phases of training.
3. State and explain types and methods of training.
4. Define evaluation of training and describe types and methods of evaluation of training.

Unit 10 : Women in Rural Development

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10.1 Introduction

Women would actively participate and contribute equally with men in social, economic and political process of rural development .They should also enjoy equal share in improved standard or living in rural areas. There is a need to spread knowledge about the statistical data on all aspect of rural poor, particularly with regards to women in rural activities and also discriminating the information in rural society in order to promote greater awareness among women in the villages. The contribution of women in developmental activities in rural economy is noteworthy. In China and Japan the rice culture is regarded as women culture. In India the white revolution is brought out by women in Khera district of Gujrat

After the study of this unit, you will be able to know and understand :

- λ Women and farm women in agriculture
- λ Features of farm women in demography
- λ Women in agriculture production
- λ Rural women empowerment

10.2 Content

10.2.1 Farm Women

Agriculture is the mainstay of Indian economy. More than 70 percent of the total population of India is directly or indirectly dependent on agriculture for their livelihood. The basic question before the nation is, how to improve the economic condition of people to fulfill the national commitment hampered due to demographic pressures on the land coupled with the adverse effect of subdivision and fragmentation of land holding.

Dairy occupation is well knit to agriculture system and has become an integral part of rural economy. It has emerged as a potential source of gainful employment for the rural poor. Women are playing a pivotal role both in agriculture and dairying, poultry, sheep and goat-keeping as a subsidiary occupations.

Women are considered to be pioneers in all sorts of developments, as they play a key role in shaping the characters of young generation, whom we call as the future of the nation. Women contribute nearly equal alongwith men, in the economic development of our country. Hence, there is a need not only to develop their capabilities but to enhance their potentialities.

The contribution of women in agriculture is roughly estimated to be about 50-60 percent. In many places, the entire livestock management is looked after by women. They help in farm operations, take their animals on distant lands for grazing, look after the sale of milk, if necessary by taking it to market and in addition, perform the functions related to house management. Chakravarty (1975) revealed that, an active farm women spends eight to nine hours of a day on the farm particularly, when it is peak period of agriculture season. In order to perform these functions more smoothly and effectively, adequate knowledge of livestock management and dairy technology is essential for farm women. However, the factors like illiteracy, low education, low social status in family, restrict their social contacts confining them only to neighbours and certain relatives. Overburdening of household domestic work does not allow the farm women to find sufficient time to obtain enough knowledge not only about

any particular subject matter, but also denies opportunities to obtain necessary information and knowledge about improved farm practices, dairy technology and livestock management. Besides, the narrow area of interaction, limited social contacts, negligible or almost no use of personal or group sources of information developed by extension agencies, limited use of mass medias like radio, television, literature etc. are also some of the causes which prohibit farm women from acquiring knowledge and information about improved farm practices and dairy technologies.

Besides participating in different farm operations, farm women also participate in taking decisions about the different farm operations. They also carry their household activities efficiently and look after their children and other members of family. When convinced about the efficiency of certain new ideas concerned with development related to their household or farm operations they work earnestly and see that they are implemented efficiently and on a large scale. They also convince their neighbours and relatives about the same.

Many times, the women in the houses are consulted before undertaking important financial transactions. The Indian social system is predominantly a male dominant society. Traditions dictate that women are not capable of doing anything independently and have to depend on men in every aspect of life. Even though the women are playing a very important role in innovation and decision process, they are not allowed to try and see whether they are capable of managing farm and family affairs independently or with the help of family members. Adequate attention is also not being paid for the social and economic development of farm women and to encourage them to avail training facilities on farm and dairy management practices for supplementing their family income through development of occupational skills and proficiency.

The knowledge and skill of farm women in dairy occupation and their participation in decision making certainly affects their efficiency in work and in the development of dairy enterprise. Women are good at adopting to change. But there is an unequal struggle since, in the reshuffle of responsibilities, their work usually increases. The studies of farm women in Malawi and Kenya indicate that environmental and economic pressures tend to have a negative impact on farm

women. Women's time was affected by these pressures and women's work loads are being increased.

In recent studies of farm women's need in rural Sierra Leone, women in poorest village explained how the annual burden of debt repayment has increased, meaning that they have to spend more time working in the fields than they use to do. Even if their children are sick, there is now a days increased pressure from their husbands to get back to the work in the fields. They also say that many men run away from the village for shame, unable to repay their debts, and that they no longer have time to laugh and joke as they use to.

Women adoption : Women are usually extremely receptive in adapting to changed circumstances. One approach adopted by women is to join self help groups, which can sometimes help to overcome traditional barriers constraining individual women's access to resources. Another approach is to develop sources of off farm income. Off farm income through such activities as basket and mat making, charcoal production and trading in these as well as in food, are all popular dry season activities for farm women.

10.2.2 Demographic Features of Farm Women

Prior to presenting the demographic features of farm women, there is a need to consider demographic status of agricultural workers in India, where in both male and female are embodied. The status of rural population on its review indicated that there were 83 percent rural people in 1951 as against 74 percent in 1991 which reduced to 8.4 percent. The status of cultivators and agricultural labour was 50 and 20 percent, respectively in 1951 whereas in 1991 it was 35 and 24 percents, respectively indicated thereby that there was a reduction of cultivators and increase in agricultural labourers. Income or loss the status of farm women as the cultivators and agricultural labourers was similar to those indicated above.

According to the statistical data on work force participation roles of farm women in rural area it was 32 percent in 1972 where as in 1994 it was more or less equal that is 32 percent. The data on labour force of female indicated that in 1994 was 24 percent in rural area as against 55 percent incase of male indicating that the rural

women were deprived of from the category of labour force may be due to their heavy engagement in their own agricultural activities and the home management.

Women Migration

According to the Registrar General, India , New Delhi the rural migration of farm women was 81 percent in 1961, where as it was reduced in 1991 to 72 percent. The status of Rural to Urban migration of rural women indicated that in 1961 it was 10 percent and was enhanced to 14 percent in 1991. Same trend was observed in respect of migration of farm women from urban to rural. Indicating thereby the rural women migration is reducing slowly may be due to the local employment opportunities in rural areas. Among the rural women workers, a majority are employed in agriculture as labourer and cultivators. The female to male ratio of participation in economic activities was 50:50. The sectoral profile of female work force indicated that more than 80 percent of female workers are engaged in agriculture sector in rural India. However, the distribution of female work participation by status of employment indicated that there was a pronounced declining trend in importance of the self employment in urban as well as rural areas and an overall increase in the utilisation of the women work force from 31 percent in 1972 to 41 percent in 1997 in rural India, with marginal decline to 40 percent in 1999. In rural India female work participation has been the highest at 59 percent in the age group of 40-44 and is above 50 percent in the age group 30-54 years.

The women's vocational training program was launched by Ministry of Labour in 1974. A separate women's cell has been also formed for the purpose and has now developed into the women's Occupational Training Directorate . Under this Directorate the institutional network includes a National Vocational Training Institute at Noida and 10 regional vocational Training Institutions in different parts of the country. There are about 765 institutes, 231 women Industrial Training Institutes and 534 women wings in General Industrial Training Institutes (ITI) Private ITI with above 46,750 training seats for providing vocational training facilities for women at craftsmen level. Statutory provision have been made in existing labour lands for organizing child care centers for the benefit of the women workers.

10.2.3 Farm Women in Agricultural Production

In our country, the livelihood of majority of population is dependent upon the agriculture. All the basic needs of the farm families have to be met from the land and land based activities, especially for the small and marginal farmers. Food is the prime need. To meet the nutritional demand of the family, not only food crops but fruits and vegetables also have to be produced. The land also to support the livestock including the small animals to provide the much needed protein. The drought animals which are the precious source for the small farmers also have to live off the land. The next requirement of the family is the household energy in the form of fuel which is mostly wood or cowdung.

To meet all these demands of the small and marginal farmers have very few resources, the basic being land and water. The farmers have to depend on the human resources in the form of family members, to get the maximum out of the minimum.

Women play a significant role in agriculture development and allied fields including the main crops production, livestock, horticulture, post-harvest operation, agro forestry, social forestry, fisheries etc. It is the fact which has been taken for granted but also all alone ignored. The nature and the extent of women's involvement in agriculture varies greatly from region to region. Even within a region, their involvement varies widely among different ecological sub-zones, farming systems, castes, classes and stages in the family cycle. A number of factors which stem from the agro-climatic, historical and cultural evolutions and socio-economic environment shape the female labour participation. In irrigated areas there is intensive cultivation. Women's participation is more in the initial stages. They are kept busy through out the year because some crops or other being in the field. Gradually their physical contribution decreases as the financial situation improves. More mechanization takes place resulting in the women's withdrawal from the farm work .Outside she still continuous to look after the post-harvest operations. Her supervisory role of the farm also improves. Punjab is good example of this. Though Women don't do much work on the field but are kept fully busy storing the grain, cooking for the labour etc.

In rainfed farming the position is different. Womens role becomes harder and harder with the lesser and lesser rainfall. In dry land areas, it is just impossible to

grow even one crop that too if the rainfall is adequate. The men folk migrate to other places in search of alternate jobs leaving behind women who try to make out from the land something to keep their families going somehow.

The phenomenon of female headed households is increasing in rural India due to rapid social change in the context of economic development efforts. The trend towards production of cash-crops ,the mechanization of agriculture ,change in land holding systems along with population growth resulting in landlessness and surplus male labour in rural areas, there is an increase in the female headed households. With the emergence of wage labour in urban areas, rural family strengths are undergoing changes

A sample of survey conducted in 1983 by Mrs Kanta Kapur, Joint Director, Directorate of Extension, Ministry of Agriculture, New Delhi shows that in Gujarat, the households headed 62 percent by women and in Maharashtra it was 10 percent. There is inter and intra state variation from 6 percent to 22 percent. One of the characteristics of these women headed families is that they do not have any irrigation facilities and depend mostly on rainfed farming for their small households.

It becomes all the more important that women's role in rainfed farming is appreciated fully. As indicated earlier, agriculture is a family enterprise in which women have a very vital role to play. To illustrate the women's participation in different crops growing in rainfed areas it is enumerated the gender wise, cultural task performed both be men and women. The cultural task performed by women were (1) preparing farm yard manure, (2) planting behind the plough, (3) weeding, (4) cutting the earheds, (5) spreading the stalks, (6) drying, (7) winnowing and (8) Hand pounding to remove husks .In respect of pulses the women's task were preparing the land, cleaning seeds, planting behind plough, weeding, bundling and drying, cleaning, splitting, winnowing and marketing for home consumption only. In the case of Tapioca crop, the task performed by women were planting in each hole in a slopping of oblique position, weeding, and retailing on small scale.

These tasks are highly, burdening and time consuming like planting seeds and sets, picking fruits, splitting, winnowing etc. The women are also interested with the tedious job of preparation of farm yard manure and manuring each plant at the root.

In the many tribal belts shifting cultivation is still prevalent e.g in Orissa with 23 percent of its population being tribal, a part from the forest shifting cultivation is the only major means of livelihood. Women contribute to a large extent in it. As have been stated by Woster Boserup (1970). This is a 'female farming' system. In shifting cultivation the women's participation was confined to burning and cleaning as the part of the land preparation, additionally spreading of ashes and manures on rural plots. In sowing the operations performed by women were hoeing and sowing or broadcasting of seeds, weeding. In shifting pattern whole family participate during night hours. In harvesting reaping and gathering of harvested crops takes 8-9 hours a day. This means the shifting farming pattern demand major activities in forest farm women and may be stated these women folk as the 'forest women'.

In the case of horticultural enterprise, the vegetable cultivation is done by women as the substantial horticultural farming. In Rajasthan by teaching budding of Ber to women, the success of budding has increased tremendously. In Maharashtra one can see drip irrigation being done through small pitures near the root zone with a small hole through which water flows drop by drop to plant. All this is done by women. Thus, women have an important role in rainfed horticulture as well as irrigated horticulture.

In the case of Animal husbandry women have a predominant role in grazing animals, cleaning of cattle sheds, feeding and other activities. They were involved in these activities to the extent of 75 to 100 percent. The operation mostly done by the women folk cattle's shed cleaning and disposal of waste by way of turning into farmyard manure, feeding of animals which include collection of fodder, chaffing. The fodder is not easily available and the workers have to go sometimes long distance to collect the fodder for animals. Even small animals like goat, sheep and pigs etc are fed by women and looked after by them. The kids and piglet need special attention.

Fishery is another area in which women have been playing a significant role in the state of Assam, West Bengal, Manipur and Tripura and Orissa traditionally. There are small ponds near the houses in which small fish are available which are used for household purposes. Rain water is collected in these ponds and fish is raised.

Most of the households in rural area depend on wood as the main fuel for their domestic energy needs. Women are mostly responsible for collection and utilization and for fuel wood production around the villages. The forests are being deforested at an alarming rate, which has special implications for the supply of fuel wood for rural households. Diminishing forest resources cause hardship to women or cost, lead to hygiene and nutritional problems.

10.2.4 Training Needs of Farm Women

In spite of education the representation of women in various voluntary and social organizations are inadequate. The women's participation in political organization at National, State, Taluka, Village level was negligible, so is the case with organization like co operation, commercial, social and religious organizations. Hence, their training needs are expected to be the nature of their activities. The study conducted of Indian Rural women revealed that some women in sample villages know about recent development activities through radio, books and news papers/ magazines etc. Women who read newspapers and magazines were highest in the urban fringe(65%) followed by interior villages(47%). Number of such women was low in tribal villages (13%). Women who read books and have some books at home was also found in the tribal villages.

The study of farm women indicated that the socio-economic conditions of the women farmers were very bad as they have neither the knowledge of the latest technology nor the resources. The only resources available were the human resource which needs to be developed so that whatever little resources are available, they can be utilized to the fullest extent. Since agriculture is a family enterprise and women have an important role, there is a need to take into account their requirement for improved knowledge and skills. They have to make aware of no cost and low cost technologies by which they can improve the productivity of their land.

The impact of the study of the special project "Women and Youth Training and Extension" which is in operation in Karnataka has given ample evidence that the productivity improves, if the women are given training. In a 10 day institutional course, farm women are given training in very simple skills such as seed selection,

seed treatment , method of sowing, placement of fertilizers, identification of pestes and diseases, preparation of plant protection chemicals in solution forms, spraying, application of Rhizobium culture to seeds in pulses etc. The impact of adoption yield after training is given as under: In Chitradurg district, there was increase in yield after training to the extent of 15%, 16%, 2%, incase of jawar, groundnut and paday respectively. Additionally there was increase in yield of Ragi, Cotton, Sunflower and maize after training to the extent of 6%, 6%, and 7% respectively.

The skills acquired and knowledge gained by farm women have produced visible changes in agricultural production practices and increases in agricultural production. Thus, women have to be trained as definite ‘clientele’ for any program taken up in rural areas.

With reference to the status of farm women, their training and other needs can be made by establishing special training institutions, like Gram Sevika Training Centers, establishments of voluntary organization of farm village women, formation of self groups of farm women at village level as part of the agricultural development program. It is said that if a woman is educated the future generations are educated socially, culturally and economically. Hence, the training needs of farm women including their homemaking activities need to be identified by their nature of status and locations and they need to be trained in the field of agricultural production, processing, marketing and agro-base industries home making by central and state government agencies and non government organizations for which the financial assistance need to be provided. Even the women’s decision making capacity need to be increased through special educational and training programs for which different need base courses of long as well as short duration be formulated, implemented and evaluated.

10.2.5 Women Empowerment

Empowerment is an authority of an individual. In this context, women in general and farm women in particular must be considered. In respect of women folk in India, if studied from their expected and performed role, the issue of their empowerment would automatically emerge as under :

The problems in farming by women are examined to see whether social change conducive to her work role has occurred in the family or not. It has been observed that the women who are working have disturbed the balance of their family due to their work role. When the attitude of a married woman's husband was studied it was noticed that there was no attitude change of the woman's husband, relatives and the villagers so as to accommodate her as working women, unlike western women who has to bear the entire domestic workload along with sole responsibility of caring for her young ones.

The issue of decision making of farm women indicates that there is need to take a number of decisions in the farm enterprise. These are taken jointly by the males and females. Male farmers are dependent upon their counterparts i.e. farm women in decision making in respect of selection of seed, selection of farm labourers, what should be the cropping pattern on their fields? However, the finalization of the decisions is done by male farmers. The study on decision making indicate that the farm women who are cosmopolite in nature, their age are taking decision in respect of farm management as well as home management. In respect of modernize agricultural technology the farm women are not able to take decisions due to their non awareness. Hence, the farm women are dependent on their male encounters. Hence, the women are still considered as the weaker section of the society, which is male dominated in nature. Hence, the issue of empowerment of women both in the urban as well as rural people one deprived off from empowerment. However, incase of the working women, the picture is rather different. This is being discussed subsequently. However the statistical information about decision taken jointly in farm enterprise by both husband and wife were to the extent of 30 percent whereas 70 percent decisions are taken in respect of agricultural enterprise by male farmers only. This indicates that the empowerment of women in rural area was not utilize for farm management to the extent it was expected. As a result there has been adverse effect on farm production. Then the question arises how to improve and utilize the women empowerment? It is felt that the following strategy can be adopted for the purpose of improvement and utilization of women empowerment by establishing the women's non-government organizations.

For example in Jamkhed tahsil of Ahmednagar Dr. Rajanikant Arole has established the Integrated Health Centre for which rural women were utilized through training. This has resulted into carrying the message of health to folk for adoption in their family. Similarly farm women are to be organized by establishing their Mandals (group). These mandals would be reliable source of the information on the agriculture, after appropriate training in technology transfer and utilization for strengthening the women economically. The State Bank Of India and the other banks have formulated Strisakti scheme for providing financial assistance to women both in urban as well as in rural areas. This has promoted the women's activities of productive nature in various fields, where the women organizes whole affairs of their enterprises without depending on their husbands. For example the Jijamata Bank which is managed by women only and help women financially in their enterprise. They are provided with appropriate technical support through extension education.

In order to increase the role of women in rural development, it is necessary to consider them as a part of the productive team and not just child rearers and consumers. Family planning, nutrition and similar programmes are not enough for them. Policy makers need to ask themselves, what new or modified programmes will do most to advance the status of women in the following areas :

1. Income generating activities (e.g. crafts, services, labour, crops) creation, economic independence is desired by most of women in most countries and is central to their status, options and ability to participate in other programmes. Poor women are usually engaged in activities that are economically productive in the usual sense of the terms, the minimum goal is thus to increase the productivity of those activities, organizing that some women may prefer to give up those activities as soon as possible. It is necessary to relieve women from the drudgery of certain traditional productive activities (e.g. carrying water, hand pounding of rice) while creating other opportunities for them to be productive.
2. Income utilising activities (e.g. credit, consumer training) Women's economic independence can be fully assured only if their income is theirs to control and if they know how best to utilize it. Many women currently play a significant role

in the family's economic decisions and should be better trained to do so.

3. Organisational capacity (e.g. participation in various organisations) membership in task oriented or training organisations not only provides focus for action and needed skills but also strengthens women's capacity to act on their own behalf and broaden their horizons.

As stated earlier the present strategies and programmes for women will have to be increased for the women's empowerment. For this purpose the present programmes will have to be modified or totally new programmes will have to be created. This will require short term action as well as institution building for programmes of permanent nature. New technologies will have to be evolved and adopted on large scale. Similarly measures to reduce the sex differentiation in existing schooling, legislation and public information to change perceptions of sex roles and status will have to be taken.

10.3 Glossary

Farm Women : is mostly perceived as the women engaged in agricultural enterprise in rural India.

Working Women : is the employed women in urban and/or rural area in organized sector may be in government service or private services.

Rice Culture : is the cultural production of rice with recommended technology which is adopted by women on their farms.

Women Role : is pertains to domestic activities as well as productive activities in agricultural and allied enterprise like poultry keeping, dairy management.

Women's Participation : It is participation of women in activities, organization, decision making and relevant aspects of human life in rural area.

Demographic Factors : These are statues of women perceived from different dimension.

Household Energy : It is energy required for home consumption in the form of fuel, gas etc.

Training Needs : These are gaps particularly in respect of knowledge, skill, attitude, adoptions about the technology relevant to farm production, processing and marketing.

Women Empowerment : It is empowerment women for decision making for action.

10.4 Summary

It is expected that any program at levels of family, village, taluka, district, state and nation is the development of community. In rural as well as in urban society it based on partnership of both men and women, who are the actors for the action. However, situation is not as expected. The women roles are considered to be lower than men. In respect of farm women in agriculture depending upon the nature of operations of crop cultivations, livestock management and allied subsidiary activities like dairy, poultry bee keeping, keeping sheep and goats the major role is played by women. However, the women have to act as per the decisions of their male partners; in the family and also in the higher level. In spite of this women's contribution is to the extent of 50-60 percent and it may be upto cent percent as per activities. However, the women folk in rural area are deprived of from the outside exposer, education and other source of information. Even the labour inputs of women are assessed at lower rates than men. The women are less migrant and depend on migration of men. They are considered as burden on agricultural and home management.

In agricultural production, processing and marketing the women's role is significant. They are also responsible for household energy. There are many training needs of farm women, but these are hardly met. Even in political, co-operative and industries, the women freedom is negligible. There is a need to have independent women educational and training institutions in rural area but that is not the fact. Hence, the needs of rural women are hardly fulfilled.

So is the case of women empowerment in rural as well as urban area due to male dominance, particularly in respect of decision making. Even after decades of independence of our nation the women's life and living standards in rural area is not up to the satisfaction.

10.5 Exercise for Practice

Answer the following questions in 200 words each.

1. Discuss role of farm women in agricultural production.
2. Write note on farm women empowerment and its significance for agriculture development.
3. Discuss the status of rural women in decision making in the family?
4. State and explain the demographic features of farm women.

Unit 11 : Principles of Farm Journalism

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11.1 Introduction

The student of journalism while acquiring knowledge of journalism to become a professional journalist is well advised to strengthen the underpinnings of his journalistic knowledge by acquiring proficiency in the structure of English as well as vernacular language through all possible efforts. It is necessary to emphasize that without a good grounding in English or local language, it is futile to expect to do well in journalism as its practices today.

There is a growing awareness among the Indian publishers to meet the needs of Indian students, but group of students becoming professionals in their respective fields are rather neglected from the point of view of professional journalism. In the course curricula of undergraduate student of agricultural sciences in India in the beginning of their degree course are taught the subjects of English, Hindi and regional languages with view that they should develop their professionalism coupled with good language of rules and regulations particularly the grammar. In the field of

agriculture, in broad sense, the agricultural students are exposed to understand rural community, as the extension workers in the field of research, the scientific development of technology and in the field of education as a teacher, they are expected to be the watcher or teacher.

Good journalism can exist in the developing country like India, where most of the Indians live in rural area and the journalism is fuelled by nation's economy. The more powerful the economy, the more relevant becomes country's journalism.

We need journalists of vastly a superior class of men and women, who should be as much at home in groves of academic as in board rooms, stock exchange, farms and farm Industries. Thus it should be the aim of the school and colleges to provide better product.

After the study of this unit, you will be able to know and understand :

- λ The importance of agricultural background for the teacher, the research worker and the extension educationist.
- λ The role of agricultural journalist in agriculture and rural development.
- λ Self learning process and personal growth of a practicing journalist.
- λ Achievement of India in the field of agricultural and rural development, the operationalised concept of Agricultural Development and its transfer and its consequences in developmental Journalism.
- λ Creative writing and guiding principles to be followed for technical writing and some tips for rural press and periodicals in India.
- λ Legal aspects of print media and Press Council of India.

11.2 Contents

11.2.1 Journalism

Journalism is defined as the business of publishing news papers, magazines and other forms of print media, including electronic media like radio, television and internet.

No text book can help in moulding such a product, but a teacher can. He will have to guide his student and that is not easy task. Here learner has to take initiative

by observations, how to report news, interpret it, how to write editorials and columns and feature articles and gain something from it. As with all things, there is no end to a journalist's learning. With his experience in learning, he would mould himself to the situations and conditions in social, cultural and economic patterns of life on the one hand and biological fields on the other hand.

Journalism is not concerned only with writing and editing of news papers and periodicals. Gathering and transmission of news, business management, advertising and other processes connected with production of a news paper also come under the purview of journalism.

Developmental Journalism

A relatively new subject "developmental journalism", included in the syllabus of post graduate diploma course in journalism at the Indian Institute of Mass Communication, deals with the role of mass communication agencies for developmental purposes. In other words, the subject spells out the techniques to be deployed to support developmental ideas and information media.

The concept of Developmental Journalism is undergoing much wider meaning in developing countries, particularly in India. It is something more than mere dissemination of scientific and technological information relevant to development in particular area or communities or to the potential beneficiaries. Nor is it confined to the presentation of impressive statistics in terms of dams, megawatts, miles of railway track or road ways, tunnels of steel, and aluminum, number of housing units, increase in agricultural production and productivity or increase in per capita income. It is also not simple "feedback" of information from developing areas to the planners and administrators.

Developmental Journalism means identification of developmental grains in terms of beneficiaries, places, degree of progress etc. so as to make the projections more effective and purposeful. The scientific knowledge to be trickled down by the journalist to the rural community or to specific area has not only to be in an acceptable form but also related to specific fields such as agriculture, education, health and hygiene, rural water supply, family welfare etc.

Developmental Journalism is thus a comprehensive concept. It can serve as a catalytic agent to socio-economic progress in developing countries and in bringing the benefits of scientific and technological advances to the people in underdeveloped areas.

11.2.2 Farm Journalism in India

Farm journalism in the developing country like India is concerned with the concept of Development. A manual for news agency reporters has been published by the Indian Institute of Mass Communication and describes the idea of development reporting.

What is development? The removal of poverty, the lessening of disparity between regions and classes, the building up of the technological infrastructure, modernization of society through shedding feudalism, tribalism, and superstitions and gradual achievement of economic self-reliance.

Development is measured by the degree of improvements in the lives of people and strengthening of families or individuals to deal with the rest of the society and of the nation's capacity to deal with the world.

Development reporting must concern itself with the people. It must show them how to improve their bargaining power with society. It must make them realize that their future is in their hands. It must describe the people actually at work in new projects and processes. It must describe the processes of change and modernization, the new discoveries and the products. It must describe terms and concepts of development.

Developmental reporting, to be effective requires considerable investigations and research on the part of journalist, apart from firm grasp of trends in economic thought, planning and development

Here we have defined of what development is, what is expected from development reporting and what developmental journalism is ? Farm journalism is very much a development reporting activity, for the improved quality of life of farmer, his family, the farming community and the society.

1. Achievement in India

Development Journalism received prominence in recent years in India because it was generally believed that Indian news papers were too pre-occupied with political events to give much thought to what was happening in the economic fields and that Indian political reporting took substantial percentage of space in the daily columns. News papers were accused for not carrying enough space for development reporting especially at a time when India was making rapid progress in agricultural industries, general industries and commerce.

It was only after India went thorough a succession of Five-Year plans that thought was at last given for assessing the results of planning. To what extent did planning benefit common man? Did he get adequate compensation for the fruits of his labour? The planning commission itself had a house 'Yojana' magazine. Yojana was primarily devoted to development reporting. Other magazines and dailies did report on economic development sporadically as it turned out, it was only recent times that development reporting has reached respectable proportions. It is not usual these days to read development reporting in the Indian press.

2. Agricultural Development Reporting

We will discuss a examples for better understanding of Agricultural Development reporting.

Vaijapur-Dry Belt Model of Drought Control (By M.J. Kamalakar)

Vaijapur, situated in drybelt about 80 Km from Aurangabad seems to have achieved notable success in the management of drought. In only two years, this taluka town is said to have progressed from scarcity to bumper crop of jowar during this year.

The answer, according to Mr. Uttarmrao Patwari, known as the peoples' MLA may be found in percolation tanks and nalla and contour bunding in the taluka. Mr. Patwari was elected from here on the Janata ticket in 1977. An advocate of percolation tanks, Mr. Patwari was responsible increasing them from 22 in 1978 to 77 today. These were followed by complete nalla and contour bunding. "So much so, we have exhausted all the sites for bunding"

Mr. Patwari said these works undertaken as part of the employment guarantee

scheme (EGS) have helped taluka to make up with its meagre rainfall of only 30cm."Today, there is enough water for drinking and for irrigation" Mr. Patwari pointed out that while in the past two years the Vaijapur sugar factory had to get sugarcane from outside taluka, this year the area under sugarcane is increased. Similarly, he stated there was a bumper harvest of jowar during rabi season. Besides, this year no money was spent on the drinking water, while earlier annually Rs 10 crores used to be spent on this account. Mr. Patwari's chief contribution to helping the drought hit Vaijapur is the provision of guaranteed employment.

Two years ago, he recalled that with water resources exhausted and fields yielding little, people were wondering desperately for work. He gave no peace to the government until scarcity work could be provided for the people in his taluka.

Thanks to his efforts, about 17000 people were daily found work under the Employment Guarantee Scheme (EGS) and upto Rs. 75 lakh was spent in two years on wages. As part of the EGS, he successfully obtained sanction for digging of the 55Km long canal between Vaijapur and Gangapur to bring water from the Igatpuri hills under the Nandur-Madmeshwar project. The canal is ready but the work on dam is yet to get under way, although the Rs.51 crores was sanctioned. Meanwhile, he has teamed up with Dr. B.D. Kaldate another Janata MLA in persuading the Maharashtra government to obtain World Bank aid for the project.

"It was their desire that this project should be completed during the Sixth Five Year plan" Work on another project, too, had by now started. It was the Rs.9 crore Shivana –Takale medium irrigation project in Kannad taluka. When completed, Mr. Patwari said it would irrigate 18000 acres in Vaijapur, 7000 in Gangapur and 3000 in Kannad talukas.

All these services to the people of Vaijapur had cost Mr. Patwari his entire savings. A low bank balance bereavements in the family have led Mr. Patwari to withdraw from the election battle this time. "My practice has suffered (he is an advocate) and my liability have increased. I have withdrawn for personal reasons" Mr. Patwari clarified.

The story of Vaijapur is a success story. What was once a drought ridden area has been transformed into a area of bumper crop of jowar. Mr. Kamalakar describes

how this transformations was achieved within a short span of two years. What he failed to do is to assess how long it will take to repay the money spent under the EGS through the new earnings of the farmers. Mr. Kamalakar quotes Mr. Patwari; surely he could also have quoted some of the farmers who have benefited ? This report was sent to Indian Express, Mumbai, May 10, 1980.

3. Agricultural development

So far the assumption has been that developmental reporting is one dimensional. The reporting of development in India to the press. But that is taking a some what limited view of development reporting. The argument can be persuasively made that all development reporting to be meaningful, has to involve transfer of information to those involved in the process of development itself. In the field of agriculture the process is ‘Transfer of Technology’ (TOT) after its development by the scientists and its recommendations to the Extension Workers of Government, Cooperatives, Non Government Organizations and the farmers. The private agencies engaged in marketing of their agricultural products are also users of technology and finally the farmers at grass root level.

How is this information for the betterment of the rural population? In his paper submitted to a seminar organized by the Indian Institute of Mass Communications. Dr. Khan pointed out that the function of communication in the context of agricultural development is to inform, educate and motivate farmers to accept new ideas and agricultural practices in order to increase production per unit of land.

The purpose of communication is to influence the farmers. The innovations need to be understood, comprehended and perceived by the audience. The approach used to fulfill this purpose could be informative, persuasive, entertaining or a combination of the above. This will lead to adoption of the innovations, which in turn help in agricultural development.

4. Innovation

The key word in the definition of innovation is ‘perceived’. Any reporting to the farmers or members of a developing community in the circumstances had to be so

molded that it would help them accept innovation more easily, or else the information or 'message' would largely remain irrelevant. A critical review of communication planning and development in India suggest that despite the radical public pronouncements and policy statements, the rural masses, particularly the rural poor have not yet been reached. This was observed by Mr. P. R. Dubhashi. One reason he said, and a most telling one, was that "The rural and other backward people, for whom many of the development schemes were specially made did not have the necessary information processing capacity and skills to take advantage of the opportunities thrown up by development program." As such in a sense, new opportunities never existed for them as they had no information about these.

This obviously, can be directly attributed to the failure of reporting to the people concerned. What needs to be understood in this connection is that communication by itself is not development. The contents of the programme must be brought to the notice of the beneficiaries and then they must perceive them as new and useful.

5. Simple language

What communication does is merely to facilitate the development process. The process, of course, can be hastened by a sound knowledge of communication in the special context of the rural masses and their level of perception and literacy. The more literate the farmer is, the better the understanding of what has been written for him. Development reporting for the farmer then must be in his own language that is within his capacity to grasp. Even more importantly, it must not talk down to him. The message must be clear to him, simply written, acceptable and graphic. It must come within at least the penumbra of the farmers past experience and related to his needs.

The message need not always be in terms of the written word. Indeed, development reporting must make extensive use of illustrations for, even while it is true that one picture is worth a thousand words, in the case of the semi-literate farmers, one picture should convey the whole idea.

6. Need based

Finally communication should be need based. The communicator should be audience friendly. He should have the special market for his ideas and streamline his message to suit the needs of his particular client. It is always important for the communicator to remember information about certain basic questions such as:

- λ What are the resources of the place?
- λ What are the skills available in the place?
- λ What infrastructures, including physical communication facilities, are available in the region?
- λ What are the major demands of the consumers of the region for which local manufacture would be acceptable? Get answers for these questions and communication reporting would then immediately become relevant and meaningful.

11.2.3 Principles of Writing

Good writing is guided by certain principles. These principles are dealt in the underlying pages.

1. What is Creative Writing?

The American College Dictionary defines the word 'create' as follows :

To bring into being; cause to exist; produce; to evolve from one's own thought or imagination; to be the first to represent (a part or whole); to make by investing with new character or functions; constitute; appoint.

And the word 'creative' is defined as having the quality or power of creating originitive; productive. Technically speaking, we 'create' when we cause something to exist, as for example when the child draws a line. However, is merely trivial, creative ? Millions of words are written every day by reporters around the world but hardly any would describe them as creative acts.

The purpose of giving this word 'creative' is because any writing is expected to be creative because creativity is a cluster of ability.

2. Connaught Place

It is a poem written by Jagmohan as a piece of creative writing. A horseshoe with passage like sundered intestines encircling a patch of green. At the heart of this cosmos sprawls a Garden of Eden that shelters stray lovers, truants from offices and shops while coffee-colored shoeshine prowl ground like a clairvoyant chorus looking for the feet of the clay. The circus runs on under the summer's candid sky hoppers, pimps smugglers and the newspaper boy prophesying the world's end.

Consider the imaginary use : passage ways like sundered intestines; prowl around like a clairvoyant chorus; summer's candid sky; victim of my paper dreams; face the angry sun; hope of a gossamer dawn, wounds me with its cusped talons.

It is perfectly possible to increase creativity of the mind is freed from its inhibition and self-raised walls are broken down. It is the free flow of thoughts unencumbered by inhibitions that goes towards creativity. To write creatively; the writer must see more in a situation than meet the common eye. The creative writer is found everywhere but a word to aspiring writer: Do not just think, feel, Do not just Celebrate, Emote, Exercise your mind creatively. But do not be afraid of your heart. You shall be surprised how much you can drawn from it, if only you will free from it from your fears.

Creative writing is where the heart is permitted to flow and thoughts are not deliberately structured.

3. Few Guiding Principles for Writing

- (a) If the content is of the technical nature e.g. is related to agriculture, animal husbandry, horticulture, fisheries, forestry etc. the information should be factually correct. It is better for the writer to become a 'temporary specialist' himself and then to consult the relevant subject matter specialist. He can become a temporary specialist by one or two authentic books on the subject.
- (b) The purpose of education is not only to teach the skills of reading and writing to participants but to make him conscious about his problems of life so the he/she may take steps to solve them. Care needs to be taken that education does not end only in teaching the mechanics of reading and

writing, using the words and sentences mainly for drill purpose.

- (c) If the content is non technical, it would be better to present both the sides of the coin and let the learner judge for himself. Offering advice, summoning and the use of the word 'should' may be avoided. You will see that it is not easy to give message without giving the word 'should'.
- (d) Let the message be some of immediate value to the learner and of a nature that it is not too difficult for him to act upon it. For example, consider these messages form a few primers:

If blood is less

If Anemia is in existent

Then eat green salad

Eat Amla and Karonda.

4. Writing for magazine

To make living articles some simple rules should be followed, they are :

- (a) Study the magazine field : Analyze each article for length, type of illustration used, publication frequency, timeliness.
- (b) Look for ideas : If you have a general picture of what a magazine wants you to have an idea that could considerably fit the magazine's particular requirement; you have jumped of that first hurdle.
- (c) Develop the idea : once you have the right idea the next step is to extend your know-how of your subject. Most writer of substance keep extensive clippings for ready reference.
- (d) Keep an unbiased mind : maintain a balanced outlook.
- (e) Write clearly and tightly : Organize your thoughts. Do not attempt to write the article at a stretch. Write the outline first. This helps you analyze your ideas. Outlining helps you concentrate on your job on hand and to tailor your story to the editor's needs.
- (f) Write with purpose : While writing, keep the audience in mind. How the writing is going to benefit them need to be understood clearly.
- (g) Write on timely subject : This is an important aspect specialy in agriculture

Information related to a particular crop need to be provided prior to sowing of the crop.

- (h) Keep in touch with editor : The magazines are run with particular motives. The editor can acquaint us with the information he need for fulfilling the objectives of the magazine.

11.2.4 Rural Press and Periodicals

Rural press and periodicals play vital role in communication. The role played by them explained below :

1. Meaning of Rural Press

Is it a small news paper with a limited circulation? Is it a district or muffsil based newspaper? Is it a market segmented multi-edition national paper catering to rural population in different parts of the country? When Indian Rural Press Association framed a definition of rural newspaper, that rural newspaper is one which devotes at least 40 percent of its editorial space to agriculture, community development co-operation, horticulture, Panchayat Raj and the like. With such a reservation of 40 percent editorial space to rural needs, we expect that rural newspapers will fill the information gap that exists by printing and disseminating the kind of information which is of special interest to a particular rural community and which may not find its way to nationalize dailies. One would think of rural Newspapers with small circulations, serving small communities and catering their special needs and interests. Further, rural newspapers belong to the category of primary commodities serving the rural population with relevant information and rendering it as the instrument of communication

Aims of rural press have been clearly spelt out by UNESCO (1971) and they are to provide reading material for neo-literates; ensure the continuing education of rural masses; give them practical advise on production and civic rights and responsibilities; ensure dialogue between the leaders and rural masses; help ensure the participation of the rural masses in economic, social and cultured development of the nation; proceed to set up a local decentralized press and to show the rural masses, how to express

themselves in the press; and introduce the rural masses to the reading of newspapers.

2. Wisdom of Rural Press

An effective newspaper will be like a teacher to the illustrate people of the rural area. It would be the mouth-piece of the community, a tool for mobilizing public opinion and attitudes, thereby increasing knowledge and raising the standard of living. Rural journalists have to function as information brokers who can interpret the incoming information and put it across the people so that they in their own local conditions can understand and react.

They must “live the situation” taking the feeble literacy of the reader into account, the rural journalist has to stimulate, assist and protect the readers seeking communication with the government. An integration of educational forms of information, together with hot news on local events, is necessary in a rural newspaper. Well produced papers with editorial policy of rural news paper must be so framed as to find its full expression in its total identification with the community with which it seeks to serve. They must involve themselves fully with every kind of activity that goes on in their areas. They should survey information of all kinds which is now either wholly denied or disseminated late to the rural people.

11.2.5 Legal Aspects of Print Media

Some regulatory measures in the respect of print media are:

- (a) First Press Regulatory in Resolutions form were promulgated by Lord Wellesley in 1799. Under these newspapers were called upon to print the names and address of printers, editors and publishers. However these Resolutions were abolished by Warren Hastings in 1813.
- (b) In 1857 the Government passed a legislation known as the Gagging Act. By this legislation mandatory licensing was introduced for printed presses, empowering Government to prohibit the publication of any news paper, book or other printed matter, and banned the publication or dissemination of Statements or news stories, which had a tendency to cause hatred or contempt for the Government. The Act was, however, allowed to expire in

June 1858.

- (c) Vernacular Press Act was passed in 1878. Under the Act, any district magistrate, police commissioner could demand security from the printer and publisher forfeit. Such security or confiscate any printed matter considered objectionably without aggrieved party having recourse to court of law.
- (d) India Press Act – 1910 : a comprehensive law aimed at increasing Government control over the mass media. Under the Act, owners of presses were required to tender security deposits; these would be forfeited if they printed any ‘objectionable’ matter. In addition, the police were given extensive powers of search and seizure.

1. Constitutional Provisions Regarding Press Freedom

The most important of Indian constitutional provision was Article 19(1)(A), States simply; All citizens shall have the right to freedom of speech and expression; A companion article 19(2), qualifies the right by providing that the State can impose reasonable restrictions on its exercise in the interest of the sovereignty and integrity of India, the security of the State, Friendly relations with foreign states, Public order decency or morality or in relation to contempt of court, defamation or incitement to an offence. Article 19(1)(A) is sufficiently wide to include the freedom of the press and implicitly, the freedom of the other mass media.

2. Press Council of India

Press Council of India Act of 1965 was passed and it came in existence in 1966. The Act was repealed in 1976 but was re-enacted in 1978. The Council by Act was established for preserving the freedom of press and maintaining and improving the standards of newspapers in India.

In respect of the council M.V.Kamath says;

The council is not a court of law. It is a court of honor. Its verdicts are not judicial pronouncement. Therefore there is no question of punishment imposed on an offending journalist or news paper Mr. A.S.Mudholkar puts it. The only weapon on

its armory is moral authority. The sole strength of the council lies in its appeal to conscience.

The Mass Media Laws and Regulations in India has included number of laws, a few of which are: The Official Secrets Act, The Indian Penal code, The Contempt of Court Act, The Protection of Civil Rights, The Cine-Workers Welfare Fund Act, etc.

11.3 Glossary

Journalism : It is a business of publishing newspapers, magazines and other forms of print media. It also includes the business of electronic media.

Development Journalism : It means the identification of developmental gains on terms of beneficiaries, places, degree of process. It is catalytic agent to Socio-economic progress through scientific and technological advances to the people in developing areas.

Development Reporting : It shows the people how to improve their bargaining power with society and it describes the processes of change and modernization, new discoveries and the products.

Transfer of Technology : It is off school educational process in which innovations and/or practices recommended by researchers are taught by extension agents to the users of technology (farmers).

(5) **Creative Writing :** Creative writing means to develop the quality of writing which helps in promoting a cause to exist, produce; to evolve from one's thoughts in power of productive nature in one's being.

11.4 Summary

The journalist to be proficient is expected to have command on language by rules. The principles of journalism concerned to the Development Journalism is the major function wherein the 'Development' as the process and methods involved are for creative reporting, editing and publishing in news form; news stories, feature

articles of scientific innovations. Farm journalism in a developing country like India is concerned with developmental activities hence developmental reporting plays a pivotal role in the process of journalism for enhancing and promoting development in the given area, people and their organizations.

The function of communication in the context of agricultural development is to educate and motivate farmers to accept the new ideas and agricultural practices in order to increase the production per unit time and land. But acceptance of innovation(s) and practice(s) is governed by its attributes.

Creative writing is the backbone of the development journalism which is based on facts, observations, transfer process, having developmental purpose at individual, group and mass levels of people and the area. Hence, for creative writing five guidelines are given for the understanding of writers or journalists.

The legal aspect of print media including the press council of India and the laws are briefly described for student's awareness.

11.5 Exercise for Practice

Answer the following questions in 200 words each.

1. Define farm journalism and its significance with agriculture and rural development.
2. Define 'Developmental Journalism' and explain importance of developmental journalism for technological transformation.
3. What is creative writing ? Explain the guiding principles for creative writing.
4. What is technical writing ? Explain the purposes and usefulness of writing to readers.

Unit 12 : Basic Tools of Journalism

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12.5 Exercises for Practice

12.1 Introduction

Agricultural science covers in broad based sense the areas of climate, land, water, crop production, horticultural production, live stock production, fisheries and their processing and marketing. This is scientific and technical in nature, hence, it involves the basic subjects of physics, chemistry, biology, engineering etc.

This calls for a great deal of knowledge of scientific and technical subjects. A good writer would have a basic degree in science and agriculture, willing to apply his mind to the subject related to his discipline. Approximately 50 years ago, in the field of agriculture, the subject of Extension Education was introduced in India with special reference to agriculture and was conceptualized as agricultural extension, in which the students of agriculture were supposed to learn rural sociology, educational

psychology, agricultural communication, extension education based on principles of adult education and educational methods, so as to enable them transfer the science and technology in agriculture to the farmers and their families. In the field of practical they were supposed to produce extension literature useful to the farmers such as Newspapers, Periodicals, Magazines, Booklets, Books, Leaflets, Handouts, Pamphlets, and Bulletins, Circular letters, Handbills, Wall newspapers, Manuals, Monographs, Posters, Charts, Flipbooks, Reports etc. for development of awareness and knowledge to the farmers.

In the process of preparation of extension publication, the visualization is the most important step. Visualization involves the following aspects:

- (1) Target group from whom the literature is to be brought viz. farmers, extension functionaries and development agencies.
- (2) Format and layout of publication including style of writing.

Additionally the subject of agriculture being of technical nature, the writing for farmers and agricultural personnel is done by scientists working in the field of agriculture and the information officers working in the development departments like agriculture, animal husbandry, irrigation, forest etc. however, their writing is of technical nature. They are supposed to develop the art of technical writing, should have sound knowledge of the subject, should be updated with latest developments, and should internalize the art of processing. At the same time, they should understand the audience for whom they are writing. If the writer is non-technical, then he should consult experts in their fields. From them the technical writer may learn various steps involved in the subject. For example, harvesting the crop, harvest season, method of cutting earheads or whole plant etc.

After the study of this unit, you will be able to know and understand :

- λ Writing for farm people
- λ Principles of readability
- λ Creative use of illustration to enhance knowledge and understanding
- λ Writing for radio and television
- λ The nature of technical subject in agriculture for transfer of technology.

12.2 Content

12.2.1 Writing for Farmers

Farmers would like to read writings that are recent, relevant, reliable, and readable, related to their interests and needs. Most of the farmers are adults by their age, literate to graduate by education, having joint families, whose members help them in the agricultural work. Hence, the principle of how to write primers for adult is to be adopted while writing for farmers.

The local farmers while learning the subject may have special problems, particular needs and different environment. Writings that too of technical nature should be effective for the farmer readers and learners to prepare them to face these challenges. The use of local idioms, colloquial words and phrases, feature stories of popular nature and events make it more interesting to farmer readers.

Simple formula for preparing the material for the print media is:

First visualize them and analyze and then organize before writing. Audience is our farmer:

Visualize your readers and think of them as individuals alongwith their desires. Common sense and knowledge of farmers are the two important components need to know by every writer.

He should develop sensitivity towards humanity in general and individuals in particular. Here a farmer's personality with his socio-economic background, his rural settings need to be visualized by a writer, when he is writing for farmers.

1. **Analyze** : Define the job to be done and decide how you are going to approach the farming community. There are always problems and limitations pertaining to the space, time and money.
2. **Organize Thinking and Material** : Analyze your thoughts related to your subject. These are to be written in sequence of thoughts. Turn the subject matter around in your mind until it crystallizes into sharp outline of one to four or more points required to be covered for a complete or full-fledged narration, if the story is to be clear and complete. Shift these ideas around until they fall into a

sensible sequence. As a writer or reporter you would ordinarily use the third person approach. You must follow whichever basis you decide on. Remember that the basic point of view is one of the principle key to good report writing.

3. **Dramatize your Presentation** : the true meaning of dramatization is , to bring life and reality. This is what you must do with everything, you want the farmer to read. How do you bring a piece of copy to life? First by being yourself alive, full of enthusiasm and interest in what you write about, and the farmer for whom you write.
4. **Analyze simple Formula** : Look back at some of your own articles. Do they show that you visualized your audience (farmers), analyze their problems, organized your thoughts and dramatize your presentation? This will give you an idea as to how you may have to work on.

After you have written your article and if you have doubt as to how far it will reach the farmers, try it out on a farmer friend to get their honest opinion. Remember that your story must inform, give useful knowledge and change farmers' thinking about subject under their situations.

5. **Advice to writers** : Maintain dignity as writer. Be selective in subject material. Maintain good farmer's reactions. Develop understanding of newspaper personnel and their problems, accept their criticism and suggestions.
6. **Knowledge of writing for publication**
 - (a) **Newspapers** : although a newspaper primarily provides news, views and advertisement, yet extension articles meant for farmers and success stories do find place. The characteristics of such write up should be: (i) simple, easily understandable, short sentences with photographs, (ii) well illustrated.
 - (b) **Periodicals and Magazines** : Such publications are of immense importance in dissemination of know-how. Many such periodicals provide information supplemented with data. There are exclusive farm periodicals like Indian farming, Kheti and parliament, Shri Sugi, Shetkari, Kisan Shakti, Baliraja.
 - (c) **Books and Booklets** : this publication cater to the need of farmers.
 - (d) **Leaflets, Folders, Handouts, Pamphlets and Bulletins** : these are most convenient means of providing scientific know how.

- (e) **Newsletters** : these are aimed at reminding people in time to intimate immediate action. News letters should have: (i) Appropriate caption (ii) Interesting, attractive and provoking introductory paragraph (iii) It should state the importance of problem (iv) It should be well timed and written in simple and effective language.
- (f) **Handbills** : it is a one sheet material used for popularizing a new product, practice or idea.
- (g) **Wall-Newspapers** : they are big sheets of papers with current news, experiences, recommendations printed on them for being pasted on wall which invite attention of viewers for reading. Farmers like to read writings that is recent, relevant, reliable and readable.
- (h) **Steps in Writing** :
- (i) **Planning** : plan easy reading. Think through why you are putting up your publication? whom it is meant for? what to tell and how? Therefore be clear on the following
- (a) Why you are writing – purpose.
 - (b) Whom you are writing for – audience.
 - (c) What you want to tell – message.
 - (d) How you will outline facts – plan.
- (ii) **Writing** : Guideline to clear writing:
- (a) short sentences
 - (b) simple words
 - (c) short and specific words
 - (d) cite examples
 - (e) write in a positive way
 - (f) use technical words carefully
 - (g) eliminate unnecessary words and ideas
 - (h) Use illustrations.
- (iii) **Timing** : prune and polish your writing, but not the meaning. Weed out the unnecessary ideas, words, sentences, phrases, and clauses. No shortcuts at the cost of clarity.

- (iv) *Checking* : use simple words, short sentences, and remember you are writing for farmers. Use 15 – 19 words per sentence, 7% personal words and 15% personal sentences. This checking in written material makes it easier to read. The principle of readability should be achieved too.

12.2.2 Readable Writing

In all your writings strive for clarity, simplicity and accuracy. In the process of writing, your writing is meant for layman or farmer. Hence you must write in layman's or farmer's language. In the technical writing, you must convert the terminology of scientist into that of layman or farmer. Technical writing at its best is lay-writing. There are many factors in achieving simplicity in writing. In the process of writing whenever feasible try to personalize or humanize your article. Put the reader into your writing. Let the reader see, what you have to say is of real interest or let the reader see what you have to say is of real interest or concern to him. Help him picture himself in it.

There are three purposes in writing: to inform (or educate), to influence (or persuade) and to entertain. It is desirable for you to realize that people are interested in people, secondly in things and thirdly in ideas. Frequently in writing and especially in technical writing, you have to make a compromise between your desire to communicate and what you actually communicate to your reader and what your reader is willing to absorb. For instance, you may wish to report in great detail the findings of a research project, you have conducted on grape mealy bugs. If only a few people are interested in the project, to read such a detailed report, you present only the highlights or a summary of it. Your detailed treatment, of course, depends upon the reader and the mass media you are using.

The same is true for your word choice as suggested earlier in the matter of simplicity. The publications such as newsletters are of value for their news or other features cannot serve as repositories of scientific knowledge. A scientific paper exactly demands the same qualities of thoughts as are needed for rest of the scientific articles: logic, clarity and precision.

In addition to organization, use of appropriate language is equally important. Use of correct language is necessary to transmit scientific knowledge effectively, clearly and meaningfully.

A conference report is a paper published in a book or journal as a part of the proceeding of a symposium, national or internal congress, workshops, roundtable etc. Therefore the vast conference literature that normally in print is not primary. Writing, after all just a way of getting your ideas over to people you might not reach in any other way. In writing we have to achieve our ends by choosing forceful, accurate, image provoking words and by the way, we hang our words and sentences together. Writing is specialized field of communication, but its relation to grammar is not different from that of other forms of writing. So grammar is necessary. You will have to well learn to use it to your advantages. Hence grammar is the most essential for effective writing. You can invest in a good reference book and handbook of current English. Such a book can be your tool, but it is not only a tool, just a paper, pen, typewriter, computer etc. are the tools.

1. Ten Commandments of readable writing

- (a) Each problem should agree with its antecedent.
- (b) Just between you and I, case is important.
- (c) A problem is a poor word to end a sentence.
- (d) Verb should agree with their subject.
- (e) Do not use a double negative.
- (f) A writer should not misprision your point of view.
- (g) When dangling, don't use principles.
- (h) Join clauses correctly by means of a conjunction.
- (i) Don't write run on sentences. It is difficult when you got to punctuate it, so it makes sense when the reader reads what you write.
- (j) About sentence fragments.

When you first start writing, remember that you can count on help. Most editors expect stories to be less than perfect. Among other things, the average editor is an editor, because he wants to help people to communicate with one another. He functions

as a mediator between the author and the reader and if he is a good editor, he strives constantly to help the author, what he want to say as clearly and consciously as possible.

Writing is, indeed a work; but if you say you can't write chances are to mean, that you don't like to write; it is probably because you have never done enough of it, let some of the mechanics become second nature. The more you write the better your proficiency and self-confidence. Besides, it can do wonders for the ego to see your name in print as the author of a worthwhile and a readable piece of reporting.

Norman Podhoretza said, to edit is "to improve an essentially well written piece or to turn a clumsily written one into, at the very least, a readable and literature article, and at the very most, beautifully shaped and effective essay which remains true to the author's intension, which realizes that intension more fully than himself was able to do. He cares about the traditions of discourse and of argument.

In writing about the subject in the various forms of printing media one's writing is expected to be readable having the quality of readability. It means a story is readable and has readability, if it has a compelling narrative easy to grasp. Readability in typography means the ease with which the eye skims the type.

2. Rules for Objective Thinking

Certain rules may be laid down for the writing a development story:

- (a) If you are writing a development story, see that the story is meaningful to the community that your paper is serving. A development story that is readable but has no relevance to your readers fails, if its purpose which is to enthuse and inspire parallels action.
- (b) Research the background of the story, form the pre-development stage to it, current status and find out whether schedule have been met expenditure properly audited and if schedules have not been met, the reasons only.
- (c) Give a patient and objective hearing to all those involved in development project including government servants, plant managers, worker's representatives and the people for whose benefit the project has been undertaken.

- (d) Mention names, take down the complaints or excuses made by different parties and where possible check whether they bear security.
- (e) Beware of public relation's man, who will provide you pre-digested material that laudatory but could be misleading.
- (f) Look for parallels. Cite a similar project launched elsewhere and how compare it with the project on which you are planning to write.
- (g) If two contrary opinions are advanced by two different sets of people, state them impartially. Do not take sides.
- (h) Wherever possible, quote profusely. Let the reader know that you have actually been talking to individuals and not just generalize on what you may have heard. Be meticulous about providing facts and figures.
- (i) Avoid the temptation to re-write hand outs, treat these as basic raw material on which to build the superstructure of your own well researched story.
- (j) Keep your personal hang-ups, likes and dislikes, prejudices and performs strictly to yourself. Let them not intrude in your reporting which is for the purpose of informing your reading public about what is happening around.
- (k) Be constructive where criticism is merited; be generous where praise is warranted. Remember; no matter how hard you have tried to get all the facts, the whole truth may still elude you. You are a reporter and not God.

12.2.3 Illustrations in Publications

Illustrations include photographs, cartoons, maps, drawings, graphs, diagrams, charts and sketches.

The publicists can make skillful use of illustrative material while sending new releases, features and articles to the newspapers and periodicals.

Advantages over printed word

Photographs have many advantages over the written words. A picture can be worth thousand words. It enhances the meaning of a new story or a feature or article. It is more effective. The hurried reader may miss a news story but he would hardly miss a picture. Through pictures, the reader absorbs the message at glance. Also,

unlike news releases, the photos can seldom be altered by editing at newspapers offices.

Most of the pictures clarify, support and explain feature stories. The reader learns faster and remembers longer through pictures. A writer can make his subject matter more lively and realistic; if it is accompanied by photographs. With the help of pictures, he can cut down the length of his story or features.

Guidelines: the planning of news story and planning of photo coverage is to be done simultaneously. There has to be a perfect co-ordination between the writer and the photographer. Since illustrated material is an important tool in the hands of publicist, it requires very careful planning and advance preparation. The publicist should extend all help to the photographer including writing of captions. He should, however, allow the photographer full freedom in taking photographs. He can certainly suggest the broad angle, but the details of execution should be left to the Photographer. The publicist should not hamper in any way the photographer's work and he should be allowed all initiative.

The publicist may himself take the photograph or use his photographer, if any, or hire a photographer. There are advantages if the publicist can himself take the picture. Also during his travels he can take pictures on usual subjects, crafts etc. which can be used for illustrating features. The lack of professional skill and proper equipment and pre-occupations with his own work will, however, make the task of publicist very difficult if he has to combine the two assignments. In any case in large organizations, the two functions should not be combined.

Technical quality of a photographer should be of high order. The picture should not be over-or-under exposed, and there should not be spotting. The publicist may compose photograph and include what he wants and exclude what is not desired. There are different types of pictures :

(i) New event-prize distribution, tractor accidents etc. (ii) Portrait pictures, sex, women, romance, (iii) Action shots-bird flying, butterfly sucking the honey from bloomed flowers, (iv) Pattern shots- views of inanimate objects used for industrial publicity, Products shots- show off a product.

For press photography, posed photography is of little use. Similarly, VIP-oriented

pictures should be avoided in features. Picture should tell the story at a glance. In case of features, the photograph should explain them of the feature. It should be clear in its details which are suitable to project.

The picture, which the publicist sends to the newspapers, should be as large as he expects it to appear. Blown up pictures reduce clarity. Since editors generally have space for small pictures, it is a good strategy to send pictures to fill up small space. Most publicity pictures are printed on 8 x 10 inch glossy paper.

Caption is a must for a photograph. It should be effective and striking. It identifies all the persons in the picture with full name and initials ordered to left to right with sufficient background. A caption should be pasted under the print, so that the editor can look both at the photograph and caption without turning the photograph. This method is convenient. But the slip is liable to be torn off in handling. As such, the slip can be pasted on the back of the photograph. In no case, caption should be written on the reverse side of the picture.

It is always better to give the choice of picture, i.e. horizontal and vertical. Also give more than one picture on the subject, so that the editor can make his own selection. Always keep copies of pictures which are sent to newspapers and negative are not sent to the newspapers.

While dispatching and mailing photographs a mail envelope with cardboard inserts is used to prevent cracks and breaking in transit. The image side is kept towards the back of envelope so that post office stamps do not damage the print. The envelop is marked 'photographs-Do not Bend'.

Photographs may be placed on exclusive basis in the case of both news photographs and photographs of features and articles. It should be clearly indicated whether the photograph is exclusively for a particular paper or papers in a particular language or papers in a particular region.

A free-lancer may illustrate his material with photographs. For this purpose, he may contact photo agencies, the government departments, embassies, business houses etc.

The government of India has a photo division under the Ministry of Information and Broadcasting. It meets the requirements of photographs of all media units of

ministry for internal and external publicity. Free lancer can also obtain photographs from the division at a nominal price by placing an advance order for the news and features coverage sends the requests to photo division. The photographs are released to the press by the Publication Information Bureaus (PIB) photo division.

The division supplies newsworthy black and white photographs of important national and international events to the press Information Bureau for distribution to the press in India and missions abroad. Officers of the division accompany the Prime Minister and the other VIP's abroad for photo coverage, and transmit radio photos of coverage for publicity in the Indian Press.

State Directorates of Public Relations and Information have its own photo sections. They undertake news and the features assignments within the state and also provide photographs for exhibitions and state publications.

There are number of the photo agencies including PTI and UNI operating in metropolitan cities and other towns of the country. They supply photographs to the newspapers and periodicals. A number of Embassies and High commissions located in Delhi have photographers to cover the assignments. They also send photographs to the newspapers for publication. This is another source for a free-lancer to obtain photographs.

12.2.4 Writing for Radio and Television

The secret of success in communication is the ability to put oneself “in the shoes of the recipient”. This is commonly known as ‘empathy’. Therefore, make empathy as your watch word in scheduling, designing and broadcasting your program to start with for any program ask yourself the following questions:

- (a) What is the message?
- (b) Who exactly needs to receive it?
- (c) How can I best put it across?
- (d) When is the right time for it?
- (e) How soon should I repeat the message?
- (f) What should be the supplementary message or messages?

The greatest writing in the farm broadcasting is to adopt the test book approach. The message you broadcast, if not needed by the listener he switches on to a music program.

News copy for radio and television follows the same basic writing principles as those allied to print journalism. But there are some crucial differences, conditioned by the different character of these media. The style is conversational, content is more compressed and the grammar includes the vocabulary of sounds and dialect of pictures. Broadcasting scripts are written to be heard rather than read. Radio scripts must tell only those parts of a story that are not obvious from the images on the screen. These conditions apply whether the writing is for heard news a feature or a commentary. Because of the special demands of broadcasting writing the premium on the writer's craft is high.

1. Compression

The broadcast news has to be encapsulate within a definite time limit, varying from five minutes to fifteen minutes. In a ten minute bulletin, hardly 1,200 words can be accommodated. This is barely equivalent to a full column of a printed matter in an average daily. The minute on the air is a long time, while 500 words in an average newspapers which takes about same reading time is a short article. The time pressure needs sophistication in news judgment and economy of language. The writer must select only those facts that are essential to convey the important elements of story and he must express the facts accurately and grammatically in the fewest possible words. The reporter for broadcast media must therefore be a highly skilled and precise writer. He must be able to distill the essential facts of a situation into his brief report together with whatever background or local color he can find room for. Consequently, short and sharp sentences and one and two syllable words are features of the radio news or talk very often, dependent clauses in a newspaper story are made into separate sentences for a radio story.

2. Clarity

Writing for radio is writing for the ear. Unlike the eye which can take in a whole sentence at a time, the ear takes in a sentence word by word. The need for clarity in

writing for radio is essential. Broadcasting once made is lost forever and the listener has no means of referring to what had been said. Obviously, clarity and simplicity have the highest priority splitting a sentence into two is an easier alternative than using clauses. In radio words must be lucid and clear so that listener understands immediately. Both the broadcaster and listener must be considered copy must be straight forward, written to be read aloud without risk of stumbling by the announcer. The emphasis, therefore is on-familiar words, simple sentences, and direct construction. Contradiction of words is acceptable.

3. Sight and Sound

Good broadcast writing does not duplicate the obvious. Selective silence is integral to the technique. A familiar sound can make a point without words to describe it. A television viewer need not be told what is obvious in the film, video tape recordings, still photograph, map or chart shown on screen. Recited words should complement the sounds and sights and reinforce them. The function of the broadcast writer is to tie the sound and sights together into a coherent narrative, adding explanation and elaboration when necessary. The matching of words with visuals or sounds is an important process for a broadcast writer.

4. Leads

As in print journalism, the opening line in the broadcast news is most important because one catches or loses the listener with the first sentence. The dominant news point must be isolated as the lead and should generally be written in a simple manner, designated to hold the audience interest. It should be brief but generally it tells what or whom the story is about, set the tone and if possible provide some perspective to the development. The best leads deals with the what, who, when or where and leave the more complicated why and how until later in the report. Direct and hard leads are most common for the broadcast media. They are generally used for first report of the major news breaks. Delayed or soft leads are appropriate for features or flow-up on stories, previously reported. Delayed leads with the background preceding the latest development, may also be used on complicated events.

5. Conversational Style

Radio deals in spoken words. It is the natural language in which we actually talk to each other. Therefore an intimate, conversational style as would be suitable in the relaxed and informal atmosphere of the drawing room is the basic quality for radio writing. Radio must become a friend whom the listener will believe and when we broadcast, we must talk as to friend. It must be easy to listen without casual. Properly employed, it can arouse powerful emotions particularly during moments of national crisis.

6. Attribution

Attribution is necessary for all statements that may imply blame, are of doubtful validity and controversial. In radio there is so much concern over misunderstanding that the attribution often comes first. Sources must be identified before the information is given. In radio writing sources come first and then the statement.

Writing for broadcast is writing for the ear and selective silence is essential to the technique. It calls for greater clarity and compression and should maintain generally informal conversational style.

Writing about T.V news, a writer has even suggested: “TV, unlike print, favors movements over stillness, simplification over complexity, specificity over abstraction, personality over conceptualization and the present over both the past and future.” In spite of these limitations, various surveys have frequently revealed that the majority of the viewers consider TV news as more appealing mainly for its visual support. Secondly a large section of the newspaper purchasers merely glance through the headlines and TV news should be just adequate to cater to their limited quest. Views who would like to know something in greater details can always supplement TV news with newspaper reports.

While writing for broadcast and telecasts following points should be considered:

- (1) plan the points of the subject and its expansion
- (2) Repeat the point written/spoken about and take the new point for writing.
- (3) For explanation of the point the previous experience must be written or placed.

- (4) Language should be pleasant.
- (5) Spoken language should be naturally presented and
- (6) Build up simplicity by using exact words.

12.2.5 Technical Writing

To master journalism and technical writing, learn by example. Read extensively and critically. As you read, study not only the message but also the style. Deliberately imitate the best. Eventually you will develop your own style.

In all your writing, strive for clarity, simplicity and accuracy. Technical writing is, in a sense, a matter of translation. If you wish to write in a layman's language you must convert the terminology of the scientist into that of a layman. Technical writing at its best is lay-writing. We believe that even scientists themselves prefer simplicity in writing.

There are many factors in achieving simplicity in writing. We would like to make one suggestion and that wherever feasible, try to personalize or humanize your articles. Put the reader into your writing. Let the reader see that you have to say is of real interest or concern to him. Help him picture himself in it.

There are three purposes in writing: to inform (or educate), to influence (or persuade), and to entertain. To interest your reader in either of the first two types of articles, you must present your message in such a way as to convince them that it is of concern to them and that they would some how profit by reading it. Frequently in writing, and especially in technical writing, you have to make a compromise between your desire to communicate and what you actually communicate to your reader and what your reader is willing to absorb.

Much the same is true of your word choice, as suggested earlier in the matter of simplicity. You may have to compromise between the most precise technical term and its approximates for concepts infinitely greater. It is not only helpful to you as a scientist to acquire training and experience in writing but it is also worthwhile for you, to know something and feel the pulse of the market available for what you write. Those people who have something significant to communicate to others and who know how to communicate it are indeed a blessing to mankind.

12.3 Glossary

Bulletin : A short message giving new of development of latest situation on running story.

Caption : A desccription line below a picture or illustration.

Copy : A Written or type written material to be given to printer.

Column : Basic division of newspaper page into seven, eight or nine vertical blocks of equal width.

Layout : Plan showing how type matter is to be fitted into space available.

Primer : A old name for 18 point fonds, Long Prior (LP) is old name for 10 point fonds.

Readability : Reading ease of written material to grasp sentences and words.

Story : Any news item and editorial item in a newspaper other than letters and illustrations.

Feature : Any topical story based on side lights and background information.

Lead : The main story in a newspaper's front page.

Newspaper : Any printed periodical work containing public news or comments on public news.

12.4 Summary

In the basic tools of journalism the items such as writing for farmers, readable writing, illustrations in publications, writing for radio and television and technical writing are included. The process of writing for farmers is mostly relevant to transfer of technology through agricultural extension and/or extension education with the help of various forms of publications. Most of the subject matter of agriculture is of developmental in nature, and is meant for farmers and hence the writers are advised to be analysts, organizers and dramatizers in writing for farmers. In news papers, periodicals, newsletters, books, booklets, hand bills etc. the important steps are, also given in writing i.e. planning, writing, trimming, and checks.

In the readable writing, as a writer, one has to get the ideas over to people in a very systematic way. While writing, the ten commandments given along with the rules for objective thinking. In respect of illustrations their advantages over printed word has been narrated with the guidelines with emphasis on photograph and photography journalism including the facilities available at national and state levels. In writing for radio and television, the emphasis is on the spoken words and related messages. Hence, news copy has to be prepared by observing basic principles of journalism and is governed by nature of language and conversation, where the compression, clarity site and sound with leads and styles have been given.

In respect of technical writing with the usual conditions, the purpose of writing has been narrated.

12.5 Exercise for Practice

Answer the following questions in 200 words each.

1. What are the set of rules must be followed by the writer while writing for farmers ?
2. What is readable writing and state commandments of readable writing ?
3. Describe the significance of illustrations for effectiveness of writing for farmers.
4. Differentiate between writing for print media and writing for electronic media.

Unit 13 : Editing and Printing

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13.1 Introduction

To edit means to prepare for publication. Editing to journalism is what the soul to the human body. Therefore, for any person starting to be a journalist, learning the art and skills of editing is mandatory for him, then basic question arises, who is newspaper editor?

The answer to this question can be given that editor, is not as it is commonly believed, the person who writes the editorials. He is the person, who conducts a newspaper. Usually at the bottom of the last page of every news paper is what is known as the Imprint line. The Imprint line is mandatory and pins responsibility on what goes into print on the persons who bring out a daily.

Consider this Imprint line;

Printed and Published for the Sakal Papers Limited at the Sakal Printing Press. Survey No 789/2, Wadki, Taluka-Haveli, District-Pune 411028. Editor Anant Bhagwan Dixit, Managing Editor: Pratap Pawar.....

Every thing is clearly stated as per P.R.B. law of responsibility. If a newspaper in any way contravene the law, the person responsible for the same is the editor and the printer and the publisher can easily be identified and located and will have to obey the court's summons. The person who occupies the editor's chair does not have an easy job. He bears a heavy responsibility and often has been called to pay a heavy price in the discharge of that responsibility.

After the study of this unit, you will be able to know and understand :

- λ Editing and Printing instructions
- λ Management of press and Printing process
- λ Quality of farm publication and Distribution of printed material.

13.2 Content

13.2.1 Editing and Printing Instructions

Editors in the formative stage of the Indian Press were men imbued with a sense of Mission, Dr. N.B.Parulekar who transformed 'Sakal' newspaper into a great institution, with experience in civil life and the running of public institutions. Devdas Gandhi got his experience assisting his father Mahatma Gandhi in the running of Young India. Sadanand also had his apprenticeship with the same paper. Some of these distinguished men gave the belief that editors are born and not made.

Editorship is not a bed of roses and has never been easy as his life may seem, he works under all manner of pressures and not all necessarily coming from the management. Because he is responsible for bringing out the paper, he has to bear the burnt of the wrath of advertisers or of existing government. In a large paper, an editor would have work with two to six and sometimes as many as eight assistant editors. Each would have specialized in a particular field of activity such as foreign affairs, national affairs, law, finance, defense, agriculture health sports, etc. A good editor should know how best to tap the available talent in his organization.

Most editors may not be called upon to take momentous decisions, yet editing paper is one long struggle against time, during which decisions, in one way or the other way have to be taken. Editors have different methods and then make the final corrections. Some do their own typing. Some others write laboriously in long hand. Some finish their writing by the end of evening and place a phone call before returning to bed to ensure the smooth going.

1. Editorial Responsibility

An editor enjoys immense powers such as are not often realized even in editorial sanctum sanctora and he can make his reputations. It has been said that even if the average mind could be plumbed for its reaction to any given editorial, no standard could be decided to project its long term effect. The effect of written word, by its nature, is incalculable. For example, those newspapers down the years have been suppressed and the only conclusion that we can draw from the fact is that governments have always been conscious of the power of the press. The circulation of 'Harijan' that Mahatma Gandhi edited, was not much to speak about. It never really ever touched even 50,000 mark. And yet, in terms of moving the governments, it was probably the most powerful paper in its time, certainly as long as Mahatma Gandhi was actively engaged in editing it. But it was Mahatma Gandhi who made the 'Harijan'. These days, it is the newspapers that make the editor.

Nevertheless, editors have certain responsibilities commensurate with their powers. These are (A) to the state (B) to their proprietors (c) to their readers and (d) to their own conscience, and not necessarily in that order. Most editors are hired on contract and an editor who claims special privileges for himself on grounds of editorial independence may soon find that editorial independence and job security do not always go hand in hand.

Thus editor is the chief executive of newspaper, responsible for all its contents, including advertisements.

There are three types of different editors, performing editorial jobs according to nature of publications- viz Editor of newspapers, editors working in publishing house and in research and academic institution.

The editors of newspaper are like the editor of film or movie. He must have an unflinching grasp of the overall perspective and yet be master of details. There is no reporter or even author, who could replace a skilled editor.

Editors in publishing houses are mainly concerned with exercising choice as to what should be published and acquired for publishing. After acquisition of the manuscript the editor is also responsible for shaping it in the proper form from the point of language uniformity and accuracy.

Editors working in research and academic institutions prepare manuscripts for publication and work in close cooperation with subject matter specialists, photographers, designers and artist, type setters and printers.

2. Principles of Editing

There are two aspects of editing mainly the use of proper language and writing the manuscript properly.

(a) *Paying attention to language*

The format principle is to make the copy readable. The sub-editor or editor must ensure that story conforms to the following principles.

- (i) it is precise,
- (ii) it is clear,
- (iii) it has an appropriate place to the content,
- (iv) it uses traditional devices that lead the reader from one thought to the next
and
- (v) it appeals to the reader's senses.

A news man's language is the people's language in which the public thinks, the public talks and the public understands. Every word must be understood by ordinary man.

(b) *Rewriting*

Rewriting news story is equally essential to ensure that the headline accurately reflects the news captured in the text and the perspective and focus of the story is not

lost in the wordiness. Rewriting usually makes the difference between the mediocre and good paper. Even while in a hurry to catch the deadline a good sub-editor would not ignore rewriting aspect of editing. Use of apt words is another important aspect of journalism. This aspect of journalism requires intensive training and practice.

13.2.2 Press Management

Press is generic word for all forms of journalism; also machine that prints. Here we have used information on printing machinery. Applications for the import of printing and composing machinery required by newspaper presses or printing presses engage in the production of newspapers and periodicals have to be submitted to the Chief Controller of imports and exports in the prescribed form, that the authority. For release of printing/composing machines through the buffer stocks of the project and Equipment Corporation of India Ltd., New Delhi. The Proforma can be obtained from the registrar of newspaper for India.

It is necessary for the publisher to mention clearly the existing capacity in terms of printing and composing machinery already with him so as to enable the government to assess the essentiality or otherwise of licenses applied for. The procedure for import of printing machinery is laid down in the handbook of rules and procedure on Import trade control issued by Ministry of Commerce, Government of India.

Every publisher has to submit to the Press Registrar at New Delhi, an Annual Statement in respect of each newspaper published by him, in Form-II as prescribed in the Act and Rules, on or before the last day of February each year in respect of previous calendar year. A statement about ownership and other particulars, in Form-IV as prescribed under the Rules, has to be published in the first issue of the last day of February every year. Allocation of newsprints to a newspaper will be based on the assessment of the circulation check.

1. Ceasing Declaration

The printer or publisher of a newspaper is required to submit a declaration to the concerned Magistrate, when he ceases to be the printer and publisher of the paper or when the newspaper ceases publication.

2. Newspaper set up

The management responsibilities in a big newspaper are squarely divided between the editor and the general manager. The editor is in charge of the editorial context of the paper, while the general manager looks after all the commercial activities. The managing director oversees and coordinates the function of both the editor and the general manager. He also acts as the link between the Board of Directors and the newspaper and decides and conveys policy matter. Very often he is also the principal owner of the paper. By the beginning of the nineties, the news rooms in many newspapers have began to set “Cold Type”, replacing the “Hot type” of linotype or monotype machines. Columnists and reporters traded their typewriters for terminals; Subeditors called up stories on their screens and process them electronically. Wire stories could be fed into a computer, where editor could choose and cut without going to the keyboard again.

The other departments not immediately connected with the hard news are more or less autonomous though formally under the supervision of the news editor or an assistant editor. Depending upon the other sections like sports, cinema, trade and commerce, entertainment, Sunday supplement etc. have certain number of pages to be filled by specialists. Feature stories generally appear in these pages. The associate editor and the assistant editors help the editor to plan and write editorials and are responsible for the opinion making functions including feature stories and articles.

Though at a lower level of the hierarchy, the reporters and subeditors form the backbone of any direct role to play in any decision making but the reputation of a paper largely depends on their efficiency and skill. Nowadays, it is only rarely that an editor is able to import a new sense of direction and dynamics to make it essentially an editor’s paper, a trend quite evident in the past. In today’s world of complex issues and news pattern, they are a vanishing tribe. Today, the editor has to closely interact with the advertisement and circulation departments to understand the profile of the readers and on their advice, bring out a product that can catch the reader’s imagination. This is in sharp contrast to the days when editors used to lay down the norms of public life and dictate the national value system.

13.2.3 Printing Process

India has more than 50000 printing presses, big, medium and small. About 90% of these presses are in the last category. The Government of India has its own printing presses including three text book presses at Chandigarh, Bhubaneswar and Mysore and one litho press at Faridabad. The state governments and in many cases, the public sector undertaking also have their own printing presses.

Information about different printing processes, printing paper, type faces, proof reading etc are discussed here under. The printing processes are mainly of three types Letter press, Lithography & Offset Lithography and Gravure. Printing paper is available in sheets of various standard sizes foolscap (17" x 27"), crown (15" x 20"), demy (18" x 23") and royal (20" x 25"). Since the cost of paper normally account for 50% of the standard sizes. While deciding the size of the page of a journal, it should be kept in mind that at least ¼" is allowed on each other edge for trimming after printing and binding the sheets.

1. Types of Faces

Generally, one type face is used for the text and not more than two or three for headlines. Most type faces can be used in at least four different ways. Bold characters are used for headlines, subheads and for giving emphasis to an important paragraph in the text, while italic variety of type face is suitable for captions and subheads. The headlines can be varied by printing some of them in upper/lower case, and others entirely in capitals. Capital letters in the same type face as the text may also be used for subheads in articles and for other purposes. The point size applies to the height of type, as measured from the front to the back of the metal shaft bearing the letter. The width of the type line, column or page is expressed in terms of 'ems'.

2. Proof Reading

It generally facilitates the publicist's work, if he has some knowledge of the art of proof reading. The use of standard marks of proof correction is of great help to printers. The standard marks of proof corrections in common use, are given as follows:
Proof Readers Marks

Marks	Meaning	Marked in Manuscript	Set in Type
↓ or (↘)	Delete and close up	It was the best of times↓ it was the worst of times	It was the best of times. it was the worst of times
Let stand Let stand	Let stand as was	Let stand It was the very best Let stand It was the very best	It was the very best It was the very best
^	Insert copy in margin	the It was best of times	It was the best of times
Paragraphing			
¶ or P or]	Begin a paragraph	It was the best of times¶ It was the worst of times.	It was the best of times. It was the worst of times.
≥ or run in	Run together as one paragraph	It was the best of times. It was the worst of times.	It was the best of times. It was the worst of times.
[or L or flush ¶	No paragraph indentation	[It was the best of times. It was the	It was the best of times. It was the
Punctuation			
○ or ⊙	Period	It was the best of times○	It was the best of times.
↗ or ,/	Comma	It was the best of times↗	It was the best of times,
⋮ or :/	Colon	It was the best of times⋮	It was the best of times:
⋮ or ;/	semicolon		
pos or ' or single	Apostrophe	pos It Was the Best of Times'	'It Was the Best of Times'
“ or ”	quotation mark	quoted It was the best of times”	“It was the best of times”
?	Question mark	?/ It was the best of times,	It was the best of times?
!/	Exclamation point	!/ It was the best of times,	It was the best of times!
-/ or =/	Hyphen	-/ It was the age of wis- dom	It was the age of wisdom.
() or (/)	Parentheses	paren (It was the best of times)	(It was the best of times)

3. House and Trade Journals

A house journal is a medium of communication intended to project the image of the organization, both within and outside the organization. External journals are circulated outside the company or organization such as dealers, consumers, shareholders etc.

The Trade Journals disseminate information about particular trade, equipment or technical progress.

4. Clearance of Titles and Delivery of Copies

Before making the first declaration it is necessary to ascertain from the Press Registrar, New Delhi, through the concerned District Magistrate as the case may be. Every Publisher is required to send a copy of the publication to the Registrar of Newspapers for India, New Delhi. This is for English, Hindi or Urdu. In case of other languages, copies are required to be sent to the Press Information Bureau, Government of India.

5. News Print

The publisher has to apply for allocation of the paper, to the Registrar of Newspapers of India, New Delhi. The newsprint policy is revised every year and quantum of allocation depends upon number of copies printed, frequency of journal, number of pages and other details.

13.2.4 Quality of Printed Material

Publication is one of the most effective means of transaction of ideas, skills and technology to the farm people. Publications have their own advantages over communication through spoken words, since they can be referred to at any time. However, publications are required to be frequently updated.

Publications constitute most effective long lasting form of communication and are the backbone of journalism. Farm publications are primarily designed to convey different kinds of messages in few hundred words to several thousand wards. The clientele may vary for various kinds of publications. The requisites of quality publications are spelt as under:

- (i) Simple
- (ii) Costwise cheap, timely, easily available
- (iii) Precise, appropriate, short sentences, paragraphs, use of sub heads
- (iv) Illustrations use of cartoons, pictures, diagrams etc.
- (v) Presentation cohesive, interesting, readable and
- (vi) Visualization with respect to size- convenient size keeping in view the distributions and readers, color composition.

The kind of farm publications has already mentioned elsewhere in this book. However its mention here with their characteristics is essential from quality point of view:

- (i) **News Papers :** As the publication is useful for farm people, which provides news, views, advertisements, extension articles and success stories. Its attributes farm quality point of views is expected as simple, easily understandable with short sentences of text supported by illustrations.
- (ii) **Magazines :** These publications are of immense importance particularly in the process of dissemination of know how many such publications or periodicals provide information supplemented with facts and/or data. There are exclusive farm publications like Indian farming, kheti, farmers and parliament of Indian Council of Agriculture Research, New Delhi and Shetakari, Kisan Shakti, Baliraja, Shri Sugi, Krishi Darshani, Udyan in vernacular language. Publicists try to bring out these periodicals with quality attainments but there is always scope for the improvements. Some of the periodicals are weekly, fortnightly, monthly, bimonthly and biannual.

In order to meet the scientific curiosity of farmers or extension workers and fellow scientists a large number of monthly magazines have come into being. A few such as the Science India appeal to Indians who are well educated presenting authoritative articles. Their editors lead in articles dealing with what is exceptional or unique in interest and depend largely on illustrations. Youngsters are notable readers of popular scientific magazines.

(iii) Books and Booklets : These are primarily meant for catering the needs of farmers and others interested in farming and rural development. Small books or booklets being low priced have their own utility. Development departments like agriculture, animal husbandry, horticulture, irrigation, agricultural universities publish the subject matter books with the scientific recommendations of technical know how supported with data and presented with tables, graphs, photos etc. which are appropriate for the respective agro climatic zones. For example, Drip irrigation in Maharashtra, Grape Production for export, Sugarcane cultivation etc. are some of the booklets circulated free of cost by the Information Officer of the Agricultural Department. Similarly folders, handouts, pamphlets, bulletins are also circulated free of charge by the Zillah Parishads and such other rural departments, organizations working at district and divisional levels.

(iv) News Letters : These are circulated to farmers and others concerned with agriculture where recent agricultural innovations are published with their usefulness and are supported with illustrations, if these are relevant to equipment and farm tools. An extension circular or newsletter to be of quality should have the following features;

- λ It should have attractive, brief and clear title or caption,
- λ It should sustain the interest of farmer readers with provoking thoughts,
- λ It should pose farming problems and help in solving them. In other words, it should be capable of providing such information so as to serve as guidelines to reader farmers,
- λ It should be well in time and written in simple and effective language
- λ There are also publications concerned to farmers and extension agents such as Handbills, Wall newspaper, Manuals, Monographs, Reports etc. The principle of 'ABC' if applied, such publications become popular. Wherein 'A' for attractive, 'B' for brief and 'C' for clarity.

Preparation of Farm Publications

Visualization is the most important step in preparation and production of farmer-oriented literature. Visualization involves the following aspects:

- (i) The target group such as farmers' families, women farmers, youngsters in agriculture, development agencies need to be kept in view while preparing and producing literature in any given form.
- (ii) Format and Layout of Publication must be considered by publishers in production of quality farm publications.

The quality of farm publications can also be enhanced by using the quotations phrases, examples given by the saints in their messages published in the books such as 'Dnyaneswari', Gatha, Dash Bodh, Gita, and so on.

Recent example in publishing the 'Krishi Darshani' as diary for farmers along with technology, the extensive use of saint's literature was made in the forms of 'Stanza', Ovi, Abhanga, Shlokas, relevant to agriculture. Saint Eknath developed his literature in 'Bharud' in the local language of people, which can improve the quality of publications and brought liveliness.

13.2.5 Distribution of Printed Material

Distribution of printed material is the most vital activity of the publishers, booksellers and the business departments. In the sizable newspaper organization and publisher have business department which is again divided into three divisions namely; Circulation, Advertisement and Accounting. The minimum equipments ought to consist of desk for adviser and for business, advertising and circulation managers a large work table, two typewriters, a file for subscription records, cabinets for stationary, record books, extra copies of the paper, etc.

The delivery of books and newspapers (Public Libraries) Act 1954. This Act defines a newspaper as any printed periodical work containing news or comments on public news and enjoins upon. The publisher of every newspaper to deliver at his own expenses one copy of each public library as may be notified by the Central Government. Contravention of any provision of this Act becomes punishable.

Book Production and Promotion Organization

The Government of India has set up various organizations for producing books at low prices and for fostering book industry. The National Book Development Board set up in 1967 is the principal advisory body for the development of the book industry and trade in the context of several requirements of the country. The Board is reconstituted in 1970 has representatives of different sectors of book industry.

The National Book Trust produces and encourages the production of good literature. This includes classical literature on India, outstanding work of Indian author and also one Indian language to another and also translation of out sider books from foreign languages. This Trust organizes exhibitions and seminars as a part of its effort to make people book minded.

The publication division is responsible for production, distribution of sale of books and journals on all subjects of national importance, with a view to providing up-to-date and authentic information to public at home and abroad. The Bureau of Public Information as the Publication Division aims at dissemination of information about national development activities, promotion of national integration and stimulating interest in and to generate appreciation of and respect for the variegated pattern of life and culture of India.

The Division has so far brought out about 6200 books and volumes in Hindi, English and other regional languages. Division has started a new series of low priced books titled “Books for Millions” under which it has released 13 titles so far of these 9 are in Hindi, 3 in English and 1 in Punjabi. Division Publishes 21 journals. The foremost among these is Employment News published in Hindi, English and Urdu which commands a paid circulation of more than 3.90 lakh copies per week. The other important journals are ‘Yojana’, ‘Kurukshetra’, Indian and Foreign Review, Ajkal and Bal Bharati.

The books and journals are sold through networks of over 3600 authorized booksellers and developmental sales emporia located at Delhi, Mumbai, Kolkata, Chennai, Patna, Trivendrum, Lucknow, and Hyderabad. The sales emporia also market the publications of 21 other Government and autonomous organizations such as the National Museum, Sahitya Academy, National Book Trust etc. It also sells and

distributes text books produced by the National Council for Education, Research and Training (NCERT). Apart from newspapers, periodicals and books, the printing and publishing industry in the country also bring out publications such as posters, folders, calendars, diaries, packaging labels, stickers, greetings, invitations and visiting cards. Around 200 million copies of text books are sold every year and to meet this ever increasing demands, private publishers known for their integrity and experience must be associated with the public sector.

13.3 Glossary

Bulletin: A letter or a small booklet or a printed statement that a group or an organization produces to tell people its news.

Caption : The explanatory line above or before picture.

Column : A timely and regular presentation of various kinds of editorial material by the same writer.

Editing : Checking reporter's copy to make sure it is suitable for publication.

Editorial : A kind of journalistic writing designed to interpret the news; often contains comment by the writer.

Em : The unit for measuring quantity of type. It is square in shape, with each dimensions, the same as the type size it represents.

En : Half of width of an em in a given font.

Italic Type : A style of writing that slants to the right.

Lead : The introduction to formal news story; it is usually the first paragraph but it can be more than one paragraph.

Linotype : The general name for a machine that sets type into line slugs; capitalized, it is the trade name for one brand of such machines.

Magazine : As a general term it means a storehouse or section of linotype machine that holds the molds for type character.

Periodical : Any publication that appears at regular interval.

Proof : A sample of freshly set type of a new engraving.

Publisher : One who sponsors the publication of a newspapers, magazines or books.

13.4 Summary

This unit on Editing and Printing is written to establish the understanding about various concepts such as editing and printing instructions, the management aspects of press, the printing process and how the farm publication encompasses the quantitative aspects. The circulation procedure known as distribution of printed material has been also described as the business of the print media.

While explaining the editing, the role of editor or assistant editor has been explained with their responsibility with examples and legal aspects and/or laws and the principles of editing. The press management in a way is the management of whole issue of journalism but in brief. The process of news paper set up has been explained with its function. The printing process in the quantitative form and equipment level has been narrated which also include the type faces, proof reading with their marks. The quality aspect of farm publishers has been expressed with the help of attributes of publications by their types and the guideline for preparation of farm publication is given. Finally printed material is required to be distributed to the readers. So the present system has been narrated which include Government, Non-Government, Trusts and private printing and publishing houses with their present status and method of distribution of printed material.

13.5 Exercise for Practice

Answer the following questions in 200 words each.

1. Describe role and responsibilities of an editor of newspaper and state principles of editing.
2. Define press management and explain process of press management.
3. What is significance of proof reading in publication ? State at least ten marking symbols of proof reading alongwith their discription.
4. What are the types of farm publication ? Explain them with purpose of publication.

Unit 14 : Visual-Graphics in Farm Communication

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14.1 Introduction

Education, Research and Extension activities use various Audio-visual Devices. Their successful application depends upon the response of listeners or viewers to your ideas, approach, appeal, and practices in a particular area of the study. Correct estimation regarding the 'eye minded' or 'ear minded' approach adds your success or failure to reach your audience, readers and the learners. Their innate capacity to digest what you give them is also an important consideration.

When a visual aid is important to your explanation, locate it as close to the explanation as you can. If it is a small aid, put it right on the next page. If it takes pages, place it facing the prose explanation or on an adjoining page. As the important aspect of journalism is the photo journalism which is presently used for presentation of information in various forms such as news, news stories, articles of which the write up supported with illustration, photographs and other various forms of visuals. These visuals serve as the supportive to the explanation of ideas, practice, innovations.

After the study of this unit, you will be able to know and understand :

- λ The effectiveness of visual graphics in farm communication
- λ The concepts related to various forms and types of visuals
- λ The treatment to be given to the visuals or photographs in publications
- λ The sources and services available for obtaining visual graphics.

14.2 Content

14.2.1 Definition and Concepts

The dictionary meaning of visual is pertaining to sight; concern with seeing and received through a mental vision of the eye. Visualize means to make visible to the eye. Another concept in the presentation of information is 'Graphic' meaning the art and science of mathematical drawing or pertaining to writing, describing or diagrammatical presentation.

The information in the graphic form is presented through the aids namely; visual aids. These are used in practice as the instructional devices and are used to communicate messages more effectively. These visual aids help in stimulating the sensory organs like eyes and facilitate quite comprehension of the message by the audience. These may be used for literate as well as illustrate people.

The use of visual aids has the following advantages:

- (i) Capture audience attention and arouse their interest.
- (ii) Highlight main points of the message clearly.
- (iii) The possibility of misinterpreting concept is reduced.
- (iv) Messages perceived with several senses are understood and retain better.
- (v) Provide experience not known to learner.
- (vi) Help reach more people irrespective of their level of literacy and languages.
- (vii) Speed up the process of learning.
- (viii) Save time of teachers and learners.

Visual aids can be defined as the instructional devices through which the message can only be seen. The visual aids also help in scientific nature of presentations. In

these cases the data is presented in graphical form to bring clarity to the observations. Such a type of presentation is known as graphical presentation.

The visual aids are generally divided into tables and figures. A table is any arrangement of data set up in columns and rows, classified as we read normal prose. Informal tables have certain features to distinguish them from formal ones. These distinguishing features are presented here.

- (a) They are brief and simple.
- (b) They will be seen as a continuation of the text, they have no ruled frame around them and have only the necessary minimum of internal ruled lines.
- (c) Lacking titles and table numbers, informal tables can not be listed in the index or list of tables at the front of the report.

1. Graphs

Graphs may be defined as a visual representation of numerical data. It is for easy grasping. Some of the common graphs used are bar, line, divided bar and circle.

2. Pictures and Photographs

A picture is a representation made by painting, drawing or photography which gives accurate idea of an object. A good picture may tell a story without using a single word. Picture may be in black and white or in color. Color pictures and blow up photographs have more appeal.

Pictures and photographs have number of advantages. They are used in various ways for example in the farm publications, training session, exhibitions, slide, film strips, motion picture, television, news papers.

Advantages are:

- (i) Arouse interest
- (ii) Facilitate introducing a new topic
- (iii) Clarifies complex ideas
- (iv) Convey the message to illustrate people
- (v) Photographs provides proof in evaluation of results

- (vi) Leaves an impression on mind
- (vii) Increase credibility of message
- (viii) Easy to get and of moderate cost.

Pictures and photographs should be selected for the specific purpose. They should be labeled and series of them should be given a good caption. For making series of photographs on field activities, prior planning is essential.

3. Diagram, Map, Chart and Graph

These are visuals where information are summarized and presented in a more or less abstract form. For example; a diagram is a line drawing of an object or an idea, a map is an informative diagram of an area, a chart contains information in tabular form and graph is a diagrammatic representation of the relationship between variables. These types of visuals are very convenient for presenting large amount of information in a comprehensive and meaningful way.

Diagram, map, chart and graph have number of advantages and are used in bulletin board, method demonstration, group meeting, training programs, field days, farm publication, campaign, exhibition, news papers, television etc.

Advantages:

- (i) Help in visualizing the broad concept
- (ii) Give proper perspective of an area(map)
- (iii) Show proper sequence and relationship(chart)
- (iv) Help in analyzing problem or situation(chart)
- (v) Help in making comparisons and contrasts(graphs)

These visuals should be scientifically prepared on the basis of data available and should convey the message for which they are intended. To serve the different purposes, pictorial charts, organizational charts, flow charts, tree or stream charts and suspense charts may be used. Graphs may be area graphs, bar graph, pie graph, line graph and pictograph. For effective use of the visuals the steps through which one should go are planning, presentation, follow up. The limitations of the visuals are that they are of abstract and symbolic form which may hinder an understanding and require good amount of planning and preparation.

14.2.2 Principles of Visual Graphics

In the process of explaining definitions and concepts of visuals the underlined principles have already presented. The visuals are meant for presentation in various forms and/or situations. In the printing page it aids the valuable to writing of the text and contents and helps in critical analyse for better understanding of the purpose or object.

There is vast developing trend towards the visuals in presentation of scientific material. The visual presentation can be made by use of transparencies and in the photographic way.

Recently large number of scientists have visualized the importance of visual aids and now they propogate and advocate its use. These instructional devices made their job easy by facilitating better understanding on the part of the learners by involving their many senses, particularly those related to seeing and hearing. However, it is to be ensured that projected images are visible to all members of the audience. Moreover, it is necessary to critically examine that the visuals are within the understanding capacity of the viewers.

Visual copy versus Manuscript copy

The main source of most of the tables, graphs or figures to be used by a prospective writer or a speaker are theses, annual reports or manuscripts. You may make slide or projection transparency to cover directly the manuscript copy. However many times you will probably find that:

- (i) Table number is meaning less
- (ii) The title is too long to read at a glance
- (iii) There are too many footnotes and
- (iv) At least one half of the columns of numbers are not likely to be used.

In this stituation, one may conclude that the manuscript copy is not visual copy. The principle of 'Presentation of Information' puts things on much broader base than just 'writing'. Presentation calls for writing, visualizing through aids which promotes the principles of 'Seeing is Believing' and there is always distance between 'seeing' and 'hearing'. Seeing is more believable than hearing. Thus, in the process of

presentation, there is combination of words, sentences, paragraphs, with captions, quotations and the appropriate appearance of visuals in the form of graphs. This is essential to the readers and audience to motivate them in creating interest in subject matter and the object in which he is aimed at.

Extension Education has to play an important role in communicating recent technological information to their clientele and help them in its adoption. So the first step in the direction of transfer of technology is communication of information. Communication is synonymous with mutual understanding between the communicator and the receiver. To attain this objective of mutual understanding between two individuals say, the writer who present the information and the reader who reads or listens that information, certain exercise is necessary.

First we should note that, it required mental activity resulting in a back and forth transfer of information between two minds. This is not accomplished, when the transfer is only in one direction. That is why it is so important to have some means of getting feedback from whatever type of communication we undertake; whether it is for the speech we give, a news paper article we write, a radio program we put on or just in our daily conversations.

How is the information transferred from one brain to another ? We will call one the sender and the other the 'receiver'. Let us put ourselves in the position of sender. We are now the person with the messages to communicate. We have to know our receiver to get our message across to him. For one thing, we must be aware of his reception ability, how much he is educated, what words he understands, if he has technical background and the farm experience. This lies in the knowledge that he may have. We must always realize in our writing, use of visual aids. To start with people where they are now, in order to take them where we want them in knowledge and understanding. Here the principle of S-R theory works : where 'S' stands for 'Stimulus' and 'R' stands for 'Response'. In between, the elements of communication processes are working namely; encoding of message, decoding of message and receiving of message by receiver is given back in the form of reaction or feedback in someway. In publication, it is mostly a one way process and whatever we get as source is inferential feedback which always works in mass communication like books

and reading materials, cinema, radio, television etc. Our job is not just to motivate the people for taking interest, but to motivate them in doing the expected job in their action by applying the provided information. Here the role of visuals as well as audio aids is most crucial one.

14.2.3 Photo Treatment

Journalism must make liberal use of photographs. In recent year following the lead of newspapers and magazines in the adult world scholastic journals have recognized the advantage of the pictures in the newspaper and have made a strong effort to put them there. Getting the right picture involves a small cost but to that must be added the much higher cost of the processing.

Now every city and town have a commercial dark rooms, where anybody can get films developed, prints made and special pictures, such as enlargement prepared. As the cost of living has advanced, so the cost of services of a professional photographer. The main consideration is to get good pictures.

1. Points about Composition

The first fundamental in deciding what ought to be included in a given picture is to have the main purpose in mind. For press photographers, this involves having good background in what news is and in what kind of picture editors of newspaper and magazine want. Timeliness is generally the main requirement.

But specially, what is wanted in the picture? Should it be a picture of some person or of a group of persons? Should it show attractive scene? Should it reveal some person doing something characteristics? Should it picture a tragic or ecstatic moment in the someone's life? Should it show how something is done or should it represent something in its natural state? Once the photographer knows his purpose, his job is to include in his finder just those elements that fulfill that purpose.

Proper composition involves the two elements of foreground and background. In posed pictures, each should fit the other. For example, if background is to divert attention from the foreground the purpose of the photograph will be defeated. Composition also involves balance. If there is one main object in the picture, it should

be centered. If there are several objects they should be balanced about an imaginary perpendicular in the center of the picture.

2. Proper Exposer

The right exposer depends on lighting conditions, the speed of the lens, proper use of the shutter and diaphragm and the nature of film used. If the film is properly exposed, it can be handled normally in darkroom and will result in a good picture. The use of exposure meter ensures normal exposer for daylight or floodlight pictures. For the floodlight pictures, the photographer must follow the formula on the flashbulb wrapper. This usually requires that photographer notes the distance to the object and then divide that into an exposer number listed on the package. The answer tells him how large an opening, he should have in his lens diaphragm.

3. Photo Features

Photo features are pictorial features. In such features, a series of photographs are arranged according to a particular pattern 'tell' the story, in a effective manner. There is very little write-up in such features. Photographer should be encouraged to take action-oriented photographs rather than concentrated on commercial or ornamental pictures which are normally not used by newspapers. Photographs with human angle should be taken and each newspaper be given pictures on exclusive basis. All this requires proper and advance planning and a good deal of effort, but there is no other way to publicize effectively such ornamental functions. Photographs are supplied free to press through Press Information Bureau and on payment to various Governmental Departments for their use.

4. Photo Editing

Good pictures speak themselves, while making selection of news pictures the prime consideration should be context in which the picture is being used. The picture should have information related to the story with which it is to be used.

A good newsphotograph should reflect the feelings and responses of the people photographed. Animation is one of the prime qualities of a good newsphotograph. Like wise picture also have meaning. There are occasions when symbolism could be

effective to impart meaning. Sometimes comparison provides meaning to pictures. Looking at certain photographs one is surprised, what little eyes can see when an event is taking place. Action photographs particularly come in this category.

Photographs once selected have to be edited for size, shape and content. The basic determining factor is the content because it determines the size and shape of photograph or whether the photograph should be used at all. Looking at the above factors one has to identify the key image in the photograph and enlarge it to give maximum information or impact. The word with picture should match.

14.2.4 Photo Printing

Photo printing is encompassed the Photo-Journalism. During the last few years there has been a welcome spurt in the use of photographs to illustrate news stories in both dailies and periodicals. The photographs have indeed emerged as a vital means of communicating more effectively in the press, television news, documentaries and advertisements. The 'new glossies' and tabloids in particular are using photographs with telling effects and providing appealing layouts. With the sophisticated printing processes, the reproduction has come to have clarity and depth. The old adage that a picture worth a thousand words in journalism is more true than ever. They have come to have greater impact now that they are transmitted by wire and by radio. The result is that nearly all dailies and general interest magazines give them greater significance and impact value. Together, they inform, persuade and entertain as effectively as any other mass media. Newsreel man and television news cameraman should also be considered as Photo-Journalists. But things are looking up for them, though ever so slowly. Several national and association awards have been instituted to encourage excellence in photo journalism.

Publishable Prints

Publications always use prints or unmounted photographs, for their engraving. These must be prepared on glossy paper. Each acceptable picture must give proper emphasis to the subject, must have sharp focus and must have strong contrasts. It is common practice to enlarge many 4 -5 pictures with detail such as groups to the

8 x 10 inch size, for the convenience of the engraver. As the latter makes cut, he can reduce or enlarge the picture but his engraving is better ,if he can make the engraved picture smaller than the original.

The engraving room manufactures metallic plates to reproduce pictures or drawings. Some are made of zinc, some of copper. A new device, capable of operation by a regular staff member, makes plastic cuts.

The latest development in the production department of daily is color printing. The color may be applied to type or pictures and makes greater appeal to readers than does a merely black and white. Context Color used in advertisement brings in greater revenue than does non-colored matter.

14.2.5 Picture Services

Government of India has an elaborate photo organization, known as Photo Division, an independent unit under the Ministry of Information and Broadcasting. It is the biggest production unit of its kind in the country. It meets the requirements of photographs of all media units of the ministry for the internal and external publicity. Apart from photographs for news and features, it also undertakes photographic work for exhibitions and printed publications. The division has large collections of photographs in black and white and also in color. The collection includes photographs on development projects, industries, agriculture, places of tourists' interest etc. the Division has now sophisticated equipment which can turn 1500 enlargement per hour. It can also prepare big color transparencies.

Free lancers can also obtain photographs from the Division at nominal price by planning an advance order. There is a photo library in the Press Information Bureau (PIB) where photographs are numbered and arranged subject-wise in different albums. Selection can be made and orders placed with the Photo Division.

For news and features coverage the information officers, attached to different ministries send the coverage requests to the Photo Division. The photographs are released to the press by the PIB (Photo Unit), which is located near the Photo Division. Photo Division's production is over 6 lakh photographic prints, which are used for internal and external publicity. The caption and positive print albums are maintained

in the photo library under the PIB. The Division is well equipped color laboratory to meet the requirements of the color prints.

The Division supplies news worthy black and white photographs of important national and international events to the PIB for the distribution to the press in India and Missions abroad.

Photographs are supplied free to press through the PIB and on a payment to government departments, non-publicity organizations and members of public for their use. The State Directorates of Public Relations/Information have its own photo sections. A few public sectors undertakings and large business houses have also photo production units. The PTI and UNI and other photo agencies supply photographs to newspapers and periodicals including free lancers on payment. A number of Embassies and High commissions have photographs to cover assignments. They also send photographs to newspapers for publication. This is yet another source for, a free lancer to obtain photographs.

14.3 Glossary

Glossy: A shiny-finished photograph or paper for printing.

Layout: Plan showing how typed matter is to be filled into space available.

Line Block: An engraving which prints only black and white without shades of a half-tone.

PIB: Press Information Bureau.

Plastic Cut: An engraving made from plastic material by electrical device applied to photograph mounted on cylinder.

Process Engraving: General term for producing an image on a sensitized metal plate.

Print: A photograph without mounting.

Spot color: Non-process color.

Telephoto: photograph transmitted telegraphically, to send picture by wire or a photograph taken with a telescope lens.

UNI: United News of India.

14.4 Summary

Audio visual aids as supporting material are used in education, research and extension education in order to promote motivation of learners in the subject matter. In the visual aids photo journalism is getting vital; importance in news, features and articles. Visuals in graphics form are most important in communication for its effectiveness. The uses of visuals have number of advantages in the instructional devices through which message can be effectively used. In the visuals the pictures and the photographs have the utility not only in publicity through news papers but in various walks of life of the society. So is the case of the other forms of visuals like diagram, map, charts and graphs. In the presentation of messages in the content forms along with writing visuals role is promoting the principle of 'seeing is believing' and it serves the brain storm. Photo treatment in journalism is given vital place in newspapers, magazines, meant for children and adults too. Here in photography needs to pay to composition, exposer, photo features and editing of photos. Photo printing is the process which calls for publishable prints and the photo services are available to the Indian news paper and others through the established organizations, at national and state levels. This enriches the publications in many ways and sustains interest of readers.

14.5 Exercise for Practice

Answer the following questions in 200 words each

1. Define visual graphics and explain its importance in farm communication.
2. State principles of visual graphics and describe their significance in exhibition and training.
3. Explain role of photographs in farm communication and transfer of technology for rural development.
4. What do you understand by photo treatment ? Why photo treatment is necessary in farm publication ?

Unit 15 : Radio and Television

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15.5 Exercise for Practice

15.1 Introduction

Radio and television are named in India as ‘Akashwani’ and ‘Doordarshan’ respectively. Mythologically, both these words came into vogue during Vaidic era. However, in the modern age the words ‘Akashwani’ and ‘Doordarshan’ are used for mass communication media namely, Radio and Television. Technically both these media are operated on electric and electronic technology. Radio and Television enjoy certain inherent advantages over other media. These media are cheaper in terms of their transmission cost and the price of receiver sets.

The main purpose of All India Radio is to provide information, education and entertainment, keeping in view the motto “Bahujan Hitay Bahujan Sukhay” i.e. Benefit to the majority is the happiness to the majority.

By introducing Television the policy stressed that TV was to be used as a medium of education as well as an instrument to support programs of social and economic weapon against illiteracy and ignorance. TV deals with all the facets of developments

and entertainment. Hence, TV in India is for Development and Entertainment. It is therefore essential to understand about these two significant media from the stated mottos and purposes.

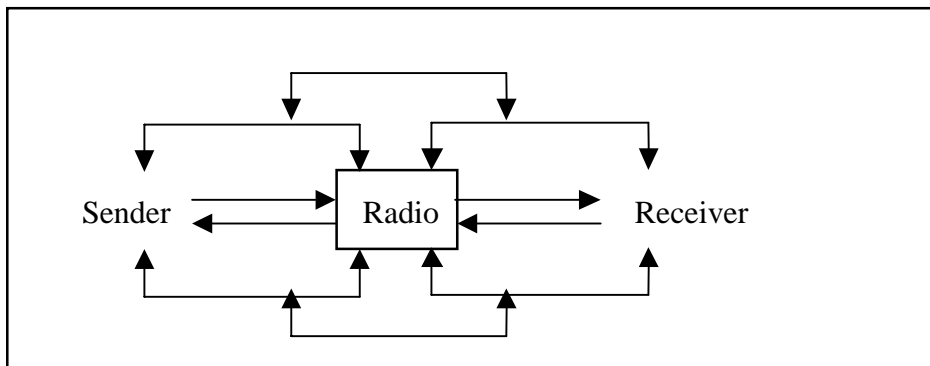
After the study of this unit, you will be able to know and understand :

- λ Characteristics and outlook of Radio and Television
- λ Production of programmes and purposes.
- λ Audience response and evaluation.
- λ Innovations and effects
- λ Presentation, storage and distribution of information.

15.2 Contents

15.2.1 Characteristics of Radio and Television

Radio acts as a catalytic agent between government and people. In fact communication is a process by which individuals share information. There are five elements in the process of communication namely; from Person (sender), Message-encoded, through channel (Radio), to Person. (Receiver) who decodes message and this message is creating effect, diagrammatically is presented as under:



Here the radio as the electronic medium is used for development broadcast to activate the social communication network favorably. Radio and TV broadcasting essentially a part of mass communication process, share the characteristics and limitations of such systems. In these systems the amount of feed back is readily available

is low, the message flow tends to be one way and can be used to increase knowledge. Radio coverage is more quick and extensive. Moreover, radio can be listened to while doing other jobs, round the clock through local or foreign stations as the Radio waves can be picked up over longer distances. It can also be operated on battery cells, electricity is not a must.

As we know that Radio as the catalytic agent between State and people it provides platform to both i.e. for division and dissemination of information on national and international issues. Some stage performances are arranged by initiation of the Radio department in rural areas where Government officials of different departments are also invited. In the first instance a question-answer session is conducted between officers and the public to ameliorate people's problems and there after folk dances, dramas, traditional music, light music or classical music are presented before the audience. Artists from other states are also invited to give performance of the art and culture of their respective states. Through such programme people enjoy the performance of popular artists of various areas and stock characters of Akashwani.

Radio as a vehicle for development is an important medium that reaches 90% of India's population through its 80 main stations and 30 Vividh Bharati channels. The 162 transmitter of broadcasting network provide a daily broadcast over 1500 hours in 15 national languages and 246 tribal and dialects. All India Radio on an average puts out programs for about 13 hours on each day in week and 14 hours on Sundays. With transistor revolution, radio has become people's medium. A cheap transistor set of pocket size today cost as low as Rs. 125. Thus, radio broadcast can be received and listened to even by the poorest of the poor. Radio cuts across the literacy and economic barriers.

As the medium for mass communication radio can have only one way communication as has already been stated. However, the Radio Forum has been an effective channel for necessary interaction with the audience like 'School on Air'. (Nabhowani Shetishala) One important aspect of broadcasting for development is the liaison and regular interacting with the subject matter specialists in agricultural universities, science departments and other institution of higher learning. This has not only helped in transferring technology but also in maintaining the topicality of the

broadcasts. In this connection efforts were made to keep in contact with extension workers and other grass root level development functionaries and also selected listeners who developed the success stories.

In a way radio scores over other mass media because of its flexibility and capacity to put out programs according to local needs. Moreover, it has capabilities to cater to the specific information needs of people. Outdoor broadcasting has been the mainstay of radio. The motivational and educational role of radio has been well established and the people have implicit faith in it.

Television for Development

Television in India has been introduced as the experiment by UNESCO and All India Radio for assessing the value of different types of educational TV programs suitable for group viewing in rural as well as urban communities. However, the use of television for development notwithstanding, while justifying the vast outlay on the expanding TV setup, even the debate on the use of this medium for development seems to have been lost in the glittering of the showbiz and soap operas.

There are of course programs on environmental protection, drug addiction, adult education, consumer's protection and agricultural development but they are given a back slot. Right now, there are some controversies and problems regarding television's potential for development and education. Some of the controversies are listed hereunder:

- (i) TV is medium of entertainment and information,
- (ii) TV is a passive medium. Can it prove better or even equal to extension worker? TV viewing does not lead to action. Human intervention is needed.
- (iii) For using TV for education a great deal of imaginative planning and coordination between media men and educational practitioners is necessary.
- (iv) In the Satellite Instructional Television Experiments (SITE) it was noted that many custodians of television sets in the villages tuned the sets selectively and audience were also sullen and non-cooperative when news and instructional programs were telecast.

- (v) Diversity of cultures and languages is a great hindrance in communicating from central point, hence Satellite television does not proved effective in education and development.

In spite of the above controversies TV is strong in providing the stimulus and exposing the audience to a whole range of ideas and experiences. In comparison to motion picture TV can create more impact due to its flexibility, less time taken to record and telecast programs and wider coverage.

15.2.2 Program Production

A successful program needs careful planning before actual production work is taken up. If the importance of planning a program and its production were to be expressed in terms of ratio, it could be 3:1. A good planning will result, almost invariably, in good production, because there are some additional norms to be followed for final production of programs.

1. Production Process

By using the above points as guidelines, one can go for production of programs. Let us turn to the actual process of production.

- (i) **The machines:** Be actually sure of the recording machines that you are going to use. Your knowledge of the working of machine is a must. Otherwise, it may become a problem during final stages of the production. There should be a balance between the input or recording level and the play back, level. The VU meter is there to guide you in this respect. Make sure that the magnetic heads of each machine are clean. Carbon Tetrachloride (CCl₄) more popularly known amongst the engineers as 'Gangajal' is there to ensure the cleaning of magnetic heads.
- (ii) **Mixing:** the spoken word and the musical piece should be used very judiciously and should never be over done. They are meant to help in creating the mood and the atmosphere intended by the script and not to spoil them by overdoing this. And, transition from sound to sound or sound to music should be smooth and unobtrusive. Any sudden jerk mars your efforts.

All said and done, the most important factor in the process of production is still left out, and that is the 'producer'. It is he who plans and produces the program. So it is up to him to follow or flout the foregoing Do's and don't of the game. If you are imaginative enough and sincere enough in your work the advice to you is: flout all the rules and set a new set of rules for yourself. And herein lie the pains and pleasures of producing a program.

2. Planning the Porogramme

Now let's turn to the points to be considered in planning the program.

- (i) **Selection of the topic** : Your audience is composed of a cross-section of the society with varying degrees of literacy and most listeners already have fixed preferences so far as topics go. Thus, you should select such topics which would appeal to a large number of listeners: a topic with large appeal. A really good script can make any subject interesting to the listeners. But, always choose your topic carefully.
- (ii) **Select the script** : A good script is one which discusses the topic simply and without any fuss. The positive response will depend on the effectiveness of a script. The programs dealing with features, musicals and drama would require a mixture of spoken words with music and sound effects.
- (iii) **Select the music** : The most important point is that to select music that goes with script. It is absolutely important to be always conscious of the period. The locale and the mood of the script. Once the music has been selected, half the work is done.
- (iv) **Select the sound effects** : Here is where the caliber of a producer is tested. A door banged, a car screeches to the halt, a railway train leaves the platform, a thunder never berates, the noise of rain against a closed window-pan. These are very common sounds that we often come across while listening to a radio feature or a play, but the question is- are these really necessary to convey the mood and motive of the script? The sound effects used should contribute to and enhance the beauty of the program.

- (v) **Select the voices :** A good script writer is not necessarily a good broadcaster. For more complicated scripts like features, musicals, plays it may become necessary to engage more than one voice. The scope for experimentation with voices is always there. Try a new voice; you may find him or her with good coaching, to be more exciting than the established ones.

3. Radio Scripts

Radio scripts should be simply written. It is necessary that radio script should be mixture of information, education and entertainment, depending upon the nature of program. Before a radio script is written one has to keep in mind the audiences. The audiences include people from all walks of life. Radio script should be neither too slow nor too fast. Too many facts and figures are to be avoided as a general rule. If unavoidable figures should be rounded of and not presented in fractions. A short radio script of less than ten minutes duration is ideal.

A radio script should introduce the subject in the beginning and should be summaries the views at the end of the program. Writing for the radio is difficult task. Radio script writing requires specific knowledge. The writer has to forego certain aids and even submit to some limitations. Writing for the radio must be precise, brief and properly proportioned which is not an easy affair. While writing for radio, one must familiarize oneself with the language of a radio script.

4. Television Program

With the increased capability of satellite communication and television transmission in India, telecast of agricultural and rural development programs are being organized in a big way with the following objectives :

- (i) To create general awareness about agricultural and rural development programs.
- (ii) To provide need based program to the rural audience.
- (iii) To show the rural people in general and the farmer in particular, what to do, how to do and with what results.

The producer of Agricultural Programs of the Television Station is in charge of the agricultural and rural programs. For publicizing extension programs, elaborate

preparation is not needed except making arrangements for transport where required. Training programs, field days, exhibition, campaign, seminar, symposium, workshop etc. which have some news value, are generally covered under this program. These are generally telecast along with the news and not in the slot provided for the agricultural and rural programs. For field recording specific activities and achievements and recording research based how to do, type of programs, the extension worker has to do lot.

(a) Planning and Preparation

- (i) Decide with producer, Agricultural Programs on the topic, location and person to be involved.
- (ii) Also decide on the date, time, itinerary, conveyance and other facilities.
- (iii) Visit the locations and select shooting materials and spots having significance for extension.
- (iv) For recording actions and 'how to do' sequences, prepared a script to the minute details.
- (v) Prepared colorful lable with bold lettering.
- (vi) Inform the participants and others well in advance.
- (vii) Limit a single days shooting to two or three locations.

(b) Implementation

- (i) Take producer, his staff and equipment to the location in time.
- (ii) For outdoor shooting, take advantage of sunlight and see that no time is wasted.
- (iii) Remind producer, his staff and participants about the message to be highlighted.
- (iv) Cooperate and assist the TV personnel at work.
- (v) See the main theme has been brought out and recorded in an understandable and interesting way.

(c) Follow-ups

- (i) Check up with producer whether some studio based recording is to be incorporated with the outdoor shooting already made. Arrange this accordingly.

- (ii) Obtain date of telecast from TV Station and communicate the same to the participants.
- (iii) Display the date, time and topic of telecast in the information center in the office of the extension worker.
- (iv) Inform and encourage as many persons as possible to see the telecast.
- (v) Reply to queries of the farmers as a result of the telecast.

(d) Limitations

- (i) Production of programmes for television requires lots of planning, preparation, trained manpower and the availability of equipment.
- (ii) Audience participation depends on costly receiving sets and availability of good source of energy.
- (iii) Seldom goes beyond creating general awareness of the audience.

5. Television Production

The production of a TV program involves more skills as well as much more electronic equipment than those for a radio program. The Director heads the team of the producer and his assistant, a video editor, a sound engineer, at least two cameramen, a lighting and art or set director, a graphic editor, makeup artists, a floor manager and technicians. Each of them has coordination of their roles that make for the technical excellence of a program.

The Television Studio

What you see on television screen is played out in front of cameras in a sound proof studio lit up with powerful lights. Microphone picks up the sounds in the studio. A minimum of two cameras are required for any program so that cutting from one shot to another is made possible. These of video/TV cameras convert the image into electrical signals. The signal is used to control the scanning of an electronic beam, within a cathode ray tube. The electronic beam strikes the surface of tube which is created with the phosphorus that emits light, when struck by the beam.

Cameramen wear headphones over which get instructions on angles and shots from the Director/Producer in the Control Room. The Floor Manager guides through

sign language to the participants in the program. Additionally the use of control room is made for the vision mixing, for projecting titles or other graphics an electronic character generator is made use of. The telecine system some times called 'telecine chain' is an electronic device which can transfer 8mm film 35mm film slides to the standard TV format as well as pick up displays, rear screen projection and limited live action scenes. Audio console is meant for 'mixing' of up to six or more sound tracks/channels. This equipment is handled by audio engineer.

The nature of programs produced are news programs, TV documentaries or features, interview programs, quiz programs, children's programs, programs for farmers and industrial workers, music and dance programs, Indian TV serials, TV commercials etc.

15.2.3 Feedback and Evaluation

In doordarshan variety of programs are planned and produced. These are National programs, news, commercial service, Intext service, sponsored programs, krishi darshan, and exchange of programs and so on.

The evaluation as the feedback and research particularly with respect of programs of Doordarshan in India is built in mechanism of the TV organization. TV is the Mass Communication meant for masses in shortest possible time and the largest coverage. Its performance is received back by the TV organization in the feedback form. This is called as inferential feedback. Additionally conscious efforts are made to get feedback from TV viewers through organized and specialized cell known as Research and Evaluation.

1. Research and Evaluation

Audience Research Unit provides an inbuilt mechanism to watch the interest of the viewers. The viewers not only communicate with the Kendra through audience based programs like 'Aap Aur Hum' but also send large number of letters every day. In addition Doordarshan takes note of the press criticism and the letters to editors. Audience Research Unit has been attached to various Kendras for effective planning

of the programs and assessment of needs, preferences and expectations of the viewers. Working Group on software for Doordarshan has made several recommendations on creating appropriate environment for development of creative software for Doordarshan. The committee recommended calling the Audience Research Unit a communication research should employ methods and techniques relevant to the Indian context; methods like 'participative observations' of groups. It recommended that the result of research be made public in special Doordarshan Research Bulletins.

2. Making Programs More Effective

A Research Study on the Content Analysis of Krishi Program done by N.N. Joshi of the Haryana Agricultural University suggested certain steps to make the program more effective.

These include:

- λ The number of talks on animal husbandry and other allied aspects (bee keeping, sericulture, mushroom cultivation, marketing, post harvest technology) need to be increased
- λ Emphasis should be placed on group discussion. The presence of farmers would ensure more practical question answer sessions.
- λ Only selected visuals be included in the program.
- λ Timely telecasts should be ensured.
- λ The use of technical and difficult words should be avoided as far as possible preferably be shown in field situation.

The studies on Perception Behavior of Rural Televiewers about the Usefulness of Telecast Programmes concluded that the agricultural telecasts were perceived as some what useful by viewers. This can be improved by making appropriate use of traditional media like Kirtan, Loknatya, Bhajan, Folksongs. The farm television viewers farmers of high castes perceived telecasting to less useful compared to low cast farmers. Hence the implications of the study indicated that there is a need to improve the quality and relevance of rural television programs. It should be need based and should have more entertaining value and more informative force to draw the attention of rural audience.

While commenting on limitations of Radio, Shankariah (1969) has indicated that the credibility of radio gets greatly enhanced when agricultural scientists from farm universities and the research institutes are speakers of farm broadcast as against from Agricultural Department, Radio Station etc.

In respect of TV several studies have brought out effectiveness of TV in the transfer of farm technology (TOT) farmers. TOT was higher when farm telecast was immediately followed by group discussion.

15.2.4 Innovations

An innovation is an idea, practice or object perceived as new by an individual. It really matter little, as human behavior is concern, whether or not an idea is objectively new as measured by the amount of time elapsed since its first use or discovery. It is the newness of idea to the individual that determines his reaction to it.

Innovation is the process by which new ideas are created or developed. Diffusion is the process by which new ideas are communicated to the members of social system. Consequences are the changes that occur within a social system which results into the adoption or rejection of the innovation. Changes occur when a new idea is used or rejection has an effect. Social change is, therefore, an effect of communication which is essential for social change. The speed with which a new idea (innovation) is adopted will depend partly on the characteristics and nature of the idea. Certain farm practices have innate characteristics which speed their rate of adoption; other types may have retarding factors namely;

- 1. Cost :** New practices that are high in cost generally tend to be adopted more slowly. The cost of new ideas range from few paises for certain seed treatment to several thousand rupees for farm machinery. The farmers may adopt less costly ideas as it involves less risk.
- 2. Complexity:** New ideas that are relatively simple to understand and use will generally be accepted more quickly than more complex ideas.
- 3. Visibility:** Practices also vary the extend to which their operation and results are visible or showy. A new practice will generally be adopted more quickly if it is visible.

4. **Divisibility:** Some practices such as the use of fertilizers or seed varieties may be divided for a comparison of trial results with the previous practice. However, use of proper and certain new ideas can not be easily tried out on a small scale. A practice that is divisible for trial will generally be adopted more rapidly than a practice that is not.
5. **Compatibility:** A farmer's attitude and values towards a new ideas are always affected by his past experience with related ideas. A farmer who has adopted hybrid seed is more likely to adopt hybrid chickens as he is familiar with the concept of hybrid vigor.
6. **Utility:** If a new practice is viewed as more important than the existing methods, it is likely to be adopted rapidly. New crop varieties only produce right improvement over previous varieties. In contrast hybrid jowar seed produced on average of 10-15 quintals per acre more than open pollinated varieties.
7. **Group Action:** Some ideas required group actions or adoption; others may be accepted on an entirely individual basis. An individual farmer alone cannot secure electricity for irrigation unless his neighbors are ready to install pumps on their wells in the beginning.

Thus, innovativeness is the degree to which an individual is relatively earlier in adopting new ideas than other members of his social system. In the given social system, there use to be innovators who always tend to accept new ideas. They are the first to adopt the new idea. They are known as experimenters since they try out farm practices before any one else in their community. They are characterized by large farm size, relatively high income, high social status, active in community organizations and access to a number of information sources. In the social system such individuals are known as progressive and work as the local leader in transfer of technology. They can be used as the source in communication and in mass communication for effective release of innovations through mass media for desirable results.

Innovation Decision Process

It is a process through which an individual passes from first knowledge of an innovation, to forming an attitude towards the innovation, to a decision to adopt or

reject, to implementation of the new idea and to confirmation of this decision. The process has five steps that occurs overtime and consist of sense of action. The steps are knowledge, persuasion, decision, implementation and confirmation.

15.2.5 Storage, Preservation and Distribution

Since the topic is concerned to Radio and Television, the storage, preservation and distribution is confirmed to the said media of communication. In respect to Radio, the Transcription and Program exchange service of AIR helps different stations to receive and exchange outstanding programs, transcribes the speeches of eminent personalities and maintain the library of Sound Archives.

The Archives Library set up in 1954, collects and preserves on a permanent basis, the recorded speeches of President, Vice-President and Prime Minister and voice recording of eminent Indian and foreign personalities have been preserved. The Archives has the unique privilege of having recorded the voice of Mahatma Gandhi for over 50 hours. The library has about 3000 tape recordings of Jawaharlal Nehru's and about 2900 of Indira Gandhi's speeches. In respect of photographs and illustration the service of these are available at National as well as State level in the country.

15.3 Glossary

Archives : A repository of public records, document and monument.

Feedback : It is the reaction of the receiver to the sender about the message.

Mixer : The panel for control and blending sound picked up by various microphones.

Script : A style of type designed to resemble handwriting.

Innovation : A new idea or practice firstly known and is adopted after its trial.

Diffusion : Spread of information about the innovations, ideas, practices from sender to receiver for their adoption, rejection or confirmation.

Display : Headline and illustrations for feature.

Message Encoding: To put the message into code or cipher.

Message Decoding: Conversion of message in code into ordinary language.

15.4 Summary

Radio and Television are the electronic media, used in mass communication for education and entertainment. Both the media are presently oriented mainly for development in respect of various aspects. The messages in both the mediums are given by observing ethics and codes and are belonged to public sector for its control. Hence, radio and TV are catalytic agents between government and people. However, these mediums communicate their messages by channels, hence, it is one way communication. Inferential feedback is only possible in the respect of these media. Both TV and Radio are used for community development including the entertainment in their varied walks of life namely; agriculture, industry, health, communication, animal husbandry etc. For the production of program major activities need planning because these are institutional medias. Hence, the role of directors, producers, subject matter specialists and others are crucial for effective production of programs for these media. In order to measure the program effect the audience research is recommended and on the basis of results the programs are improved for dissemination. Programs are characterized mainly by new technology and its benefits in terms it is used by receivers or listeners. There is official arrangement of preserving, storing and distribution of information through Archives Libraries.

15.5 Exercise for Practice

Answer the following questioned in 200 words each.

1. Describe the role of 'Akashwani' and 'Doordarshan' as the media of mass communication in India.
2. Write note on role of Radio and Television for rural development.
3. Describe process of programme planning and production for radio and television.
4. What is innovation ? Explain factors responsible for adoption of innovations.

Unit 16 : Writing for Farmers

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16.1 Introduction

Today's 'Information Technology' is developing in nature. In information giving and information collecting, the processes are becoming significant. Here exchange of information in the form of ideas, practices and technology are transformed through the spoken words, written words, pictures/photographs or other forms of visuals. The languages play the pivotal role in communication and the written language has long term effect on the behavior of readers. Written language may be of literature in nature, scientific and/or commercial one is produced in the various forms such as notes, letters and others. Written material can be recalled for information reference and hence written words as the medium of communication is more formal in nature. Moreover the written material is always based on thoughtful thinking, with respect to its reflective effect.

Farm people like to read writings that are recent, relevant, reliable, readable, related to their interests and needs. Here we are writing the relevant information

useful to farmer readers from agricultural point of view and the item of information gathering, processing for useful writing for the farmers. Additionally the process of printing as well as evaluation of farm publication would also be covered.

After the study of this unit, you will be able to know and understand :

- λ Agriculture situation in Maharashtra.
- λ The sources of information gathering and methods of processing,
- λ Evaluation of farm publication of various types and
- λ Printing process that can be applied to farm publications from the knowledge, skills and understandable point of views.

16.2 Content

16.2.1 Agriculture in Maharashtra

The agriculture sector has an important place in the overall economy of the country. So is the case with the state of Maharashtra. The agricultural production is more than doubled in last few decades and has been a commendable achievement and well recognized. Generations of the meaningful technologies for the small and marginal farmers, the transfer of technologies to the millions of these rural folk, efficient delivery systems of the inputs and services and management aspects to constitute challenges, which we must successfully face in the years to come.

1. Agricultural Development

Maharashtra, with a geographical area of 307.6 lakh hectares, is the third largest state in the Indian Union on the basis of area and second on the basis of population. Out of the total geographical area, 181.30 lakh hectares are cropped more than once. Thus, the gross cropped area is 204.26 lakh hectares. The topographical features of Maharashtra are hilly and rolling terrain. About 40% of the area is unsuitable for growing arable crops and 1/3 area, comprising 105 tahashils are drought prone, where scarcity is very common. Even in assured rainfall areas, monsoon is erratic and often scanty.

About 16% of the cultivated area is irrigated of which more than 56% is under well irrigation while the remaining area receives irrigation through canals, small tanks or through lift irrigation projects.

The important crops in Kharif are paddy, sorghum, pear millet, cotton, tur, mung, udid, groundnut and other minor pulses and oilseeds, while, in rabi, sorghum, wheat, safflower, gram, lentil and linseed are the important crops. In recent years sunflower and soyabean are becoming popular, while mustered is showing promise in some of the areas. Sugarcane is one of the most important commercial crops of the state which has brought prosperity to state's rural area because of organized cooperative sugar factories. However, this crop has shown decline in productivity, though the total production of this crop has increased which has come from area of expansion. An average per hectare yield of most of the crops is very low compared to national levels of productivity.

The state is divided into nine agro-climatic zones on the basis of soil, total rainfall and vegetation. In addition in broad classification, the state is divided into 16 eco-units based on rainfall patterns. This classification is useful for crop planning at micro-level. Maharashtra is the first state to adapt such an exercise. There are four agricultural universities in the state situated in specific ago-ecological situations. These are engaged in research on various crops, animals, fishes, bio-technology etc. Useful finding of research are passed on to the cultivators through extension agencies which are working with Zillah Parishads and State Department of Agriculture Conscious efforts are being made to increase the production and the productivity and income of the farmers and for overall agricultural development in the state.

Information on area, production and yield of food grains in 1996 indicated that the state had 13.80 million hectares cropped area that is 11.2% of total area and the production was 14.60 million tonnes which was 7.3% of total production. Where as the food grain productivity of the state was 1058 Kg/ha. This was low compared to 1614 Kg/ha of Nation. The status of total pulse in 1996 was indicating that these crops were cultivated on 3.27 million hectares with the production of only 1.24 million tonnes with average yield of 381 Kg/ha, which was also low compared to 572 Kg/ha at all India level. The area under cotton was 3.14 million hectares, with production

1.75 million tonnes having yield of 95 Kg/ha. This was also too low compared to national level yield of 213 Kg/ha. The area, production and productivity of sugarcane crop in Maharashtra during 1996 was 0.46 million hectares, 38.18 million tonnes and 8300 Kg/ha respectively, which was also showing a decreasing trend.

The contribution of Maharashtra in oilseeds is significant particularly in safflower. Summer groundnut production has shown increase in area during summer. However, there has been substantial increase in productivity of oilseeds in the state.

2. Horticultural Development

In the recent years, the State Government has been encouraging cultivation of more remunerative horticultural crops. An amount of 100 Crores per year has been earmarked for horticulture development program in the state, according to which an area of 2 lakh hectares is being brought under horticultural crops every year, with a view to bring more income to the farmers, ornamental horticulture which predominately includes horticulture where in crops like roses, gladioli, carnation, chrysanthemum, orchids and other cut flowers are being extensively grown for export.

3. Cattle Improvement Program

The total livestock population in the state was 29.6 million heads, which constitute about 8% of the country's livestock population. Due to conscious efforts made by state government and state department of Animal Husbandry in launching massive cross breeding program and providing necessary health cover and better nutritional facilities, the total milk production has increased from 4 lakh liters/day in 1980 to 55 lakh liters/day in 1987. Similarly the efforts are being made for development of poultry for meat and egg production, through cooperative societies and private agencies.

The future strategy for development is confined to:

- λ Irrigation development and management
- λ Quality seed supply
- λ Crop management practices
- λ Integrated fertility management

- λ Plant protection
- λ Transfer of Technology
- λ Watershed development program
- λ Post harvest Technology
- λ Emphasis on pulses and oilseed production
- λ Subsidiary industries and farmers' participation which is the vital link.

16.2.2 Information Gathering

The present civilization is characterized by the fast and quick spread of information which are crucial elements in the planning for growth and modernization. The function of Journalism and news media is to transmit information to enlighten the public by reporting and explaining, what is happening in the world. Journalists serve as the public's eyes and ears. The news media are the print and electronic means by which journalists relay what they see and hear.

1. The 'Desire' and 'Right' to Know

The 'desire to know', to obtain information, is inherent in human nature. People are instinctively curious. They have a primal urge to communicate, to exchange ideas and attitudes, to learn the "news", to seek the truth. It is such interaction that makes a society function with some semblance of order.

The 'right to know', the right of an individual to know about matters that concern or interesting is one of the enduring principles of the Indian society. This right, some times expressed as a 'need to know' is implicit in the concept of a democratic community based on the will of the people. An individual must have information about his own community and the world beyond his community, if he is to make intelligent judgments about the direction of his life and the conduct of his government. He must have the knowledge of events so that he can prepare himself to deal with them. This is what Anna Hajare of Ralegan Siddhi, Dist. Ahmednager, Maharashtra is struggling for and pressurize State Government of Maharashtra for making available desired information to whom, who has desire to seek it as per his requirements of the Maharashtra Society.

An individual is limited on his capability for gathering information beyond his immediate experience. He cannot be in two place at the same time. He cannot see across oceans or even check with everyone who might have information about his concerns and interests.

Acting as eyes and ears for the public is the function of journalists and their media. The duty of the reporter and editor is to do what every sovereign citizen is supposed to do, but has not the time or interest to do for himself that is to gather information, pick out what is important, digest it thoroughly and without passion or prejudice relate it to the problems of the day. The task of gathering and reporting the news has grown increasingly complex.

Our modern society is so media oriented that most people can not imagine life without the daily newspaper and the evening news cast.

(2) Observation and Sources

The task of the news gatherer is the search for the truth or the letting in of light and air. In perusing the search, the reporter relies on his own personal observations and on consultation with sources that can augment his observations.

Direct observation is the best method of obtaining information. The alert and intelligent reporter tries every means to be on the scene of an event to see firemen fighting a blaze, to hear the mayor make a statement, to feel the mood at a protest demonstration. The reporter knows that information acquired from direct observation is usually the most reliable.

Mencher suggest three major guidelines to select relevant factual information:

- λ Know the Community: Develop feeling and understanding of what readers need and want to know.
- λ Find the Theme: Carefully identify the theme of the story so that facts that support, buttress and amplify the theme are collected.
- λ Look for the Drama: Develop sensitivity to the unique and the unusual the break from the normal and routine.

The veteran reporter regularly contacts people with access to important information within the sphere of his coverage whether the source is the state

government's information officer, a gramsevak of a village, a police station, a scientist friend who explains complicated technical matter. The reporter develops a sense of friendship and mutual trust with the sources. In return for information, the reporter writes a fair account of the information provided him and protects the source from embarrassment and harm.

There is a wide range of physical sources from telephone, books and newspapers clippings to record in government offices and reference books in libraries.

16.2.3 Information Processing

Technical writing is concerned not only with writing about mechanical things but with the art of processing as well. How, for instance, would a technical writer deals with the processing of tobacco from harvesting the crop to selling the final product?

The first step, as in all cases of feature writing, is to consult experts in the field. From them; the technical writer may learn the various steps involved in the processing, which he would then use as an outline for a first draft, somewhat as follows:

1. Harvesting Crop: 1.a Harvesting Season, 1.b Method of cutting, 1.c Individual leaf, 1.d Whole plant.
2. Curing the Leaves: 2.a Air curing, 2.b Flue curing, 2.c Fire curing.
3. Sorting the Leaves: 3.a Size, 3.b Quality, 3.c Color.
4. Packaging: 4.a Cases, 4.b Bales, 4.c Hogsheads.

The method would be the same whether one is dealing with processing of tobacco or manufacturing of cheese. The important point to remember is that the writer must think through his topic, gather and organize his material, break his available information under meaningful heads and finally link them to make a coherent and readable story. The second point to remember is not to leave technical words undefined. The average reader would not know what is meant by 'Flue Curing' or a 'Hogshead' that will have to be explained to him.

A third point to remember is making effective use of statistics. Often a writer makes a point clear and vivid by drawing a comparison to something else. And finally

a story can be strengthened by using quotes. Here is an example of how a good technical story can be written.

The 'Presentation of Information' puts things on much broader base than just 'Writing'. Presentation includes writing, speaking and showing as well as combination of the three. It is concerned with all the multifarious ways of taking information to people. Publications such as bulletins, circular, leaflets, fact sheets, news articles, letters (Personal and Circular); talks and speeches at meeting and on the radio, demonstration field days and tours, television presentations, short courses, picture charts and the like. When we add up all these we practically cover in entirety, the job of extension services. When we present scientific information to people, we should be concerned with the receiver as well as the transmitter. It should be remembered that the job to be done is to communicate. We might elaborate a bit on this and say, thus to communicate we must reach people. If we fail to reach people, the end result will be the same as we have when water runs off a duck's back. It just doesn't cause them to be receptive to the information that we are anxious to import.

The job is to bring understanding and not just to import information. The job is to stimulate people to action and to get them to apply the information. To get the job done most effectively we must satisfy the people up to last actions of them.

In the processing information for example the scientific publication must be the first discourse containing information to enable the receiver (1) to assess observations (2) to repeat experiment and (3) to evaluate intellectual processes. Moreover, it must be susceptible, available to the scientific community without restrictions and available for regular screening by one or more recognized secondary services (e.g. Biological Abstract, Chemical Abstracts, Index Medias, Excerpta Medias, Bibliography of Agriculture, Indian Journal of Genetics and Plant Breeding, Journal of Maharashtra Agricultural Universities in India and similar facilities in other countries).

A scientific paper exactly demands the same quality of thoughts as are needs for the rest of scientific articles: logic, clarity and precision. Therefore a budding scientist can fully grasp the significance of this definition of scientific one that 'the contents of an article shall be new, true, important and comprehensive' then his writing task should be good deal easier.

Each scientific paper should have in proper order, its Introduction, Materials and Methods (Methodology) Results and Discussion, Summary, Conclusions and References. This order is usually followed. It is therefore necessary that the scientists and editors demand a system of reporting data that is uniform, concise and readily understandable. In addition to organization use of appropriate language is equally important. Use of correct English is necessary to transmit Scientific Knowledge effectively, clearly and meaningfully.

All the above ways are nothing but the processing the information in the presentable forms. So is the case of any form of literature in various types of publications stated earlier.

16.2.4 Evaluation of Farm Publication

Evaluation is the process of determining the extent of objectives attained. Here is the example of farm publications to be evaluated. The information of publication which reveals the extent to which its objectives are reached is needed to evaluate accomplishments. This helps in determining how far as the activity has progressed and how much further it should be carried out to accomplish the objectives. The amount of accomplishment judged to be satisfactory should be determined in the light of the potential for improvement in the area, the complexity of the problem, objectives and the resources available.

Evaluation is an essential step in respect of publication so is the case with the farm publication. Presently number of Government Organizations and the Farm Universities including the national level bodies like Indian Council of Agricultural Research (ICAR), Council for Scientific and Industrial Research (CSIR) Department of Agriculture and Cooperation, Ministry of Agriculture. Government of India bring out various publications like Indian Farming, 'Kheti' 'Yojana', 'Kurusketra', 'Ghoronda' in English, Hindi and Urdu. In Maharashtra also the Department of Agriculture and Government of Maharashtra publish the periodicals such as 'Shetkari' and 'Swarajya' in Marathi language. Some private sector organizations publish magazines such as 'Baliraja', 'Udyom'. All these publications need evaluation either by self evaluation method or by externally particularly by the readers. It is through

the process of evaluation that one arrives at judgment or conclusions that will aid in decision making. To clarify this it will be useful to define several terms. Judgment of farm publication is the assignment of publication value to the alternative. The evaluation from this point of view provides information for decision making. The evaluation is an important and integral part of all the publications as the program at hand.

The effectiveness of evaluation in farm publication will depend on the pertinent questions asked and the nature of the response. The questions posed here are widely applicable but will require adaptation to the Specific Standards or conditions which are to be met in each of the farm publication periodically. The questions for effective evaluation are posed as under:

1. Who should do Evaluation of Farm Publication?
2. When should Evaluation be done?
3. From whom should Information be collected?
4. How is the Information to be collected?

In most cases the publishers undertake its own evaluation. This self evaluation is useful from time to time, to supplement the evaluation made by the competent persons or group outside the publishing agency for overcoming biases and for introducing new ideas.

In case of when evaluation be done, the evaluation of farm publications should go periodically. Evaluation of a magazine may be done once in year whereas the other publications when their revised edition and/or reprinting to be done then evaluation of such publication should be done particularly by the representation of the readers. Some times letters to the editors/writers/publishers are most useful as the evaluation of the publications.

In some instances, it may be necessary to use broad survey technique for collecting the desired information like title, front pages, readability, quality of visuals and graphic presentation, letter size, subtitles, logical aspects etc. The information on these aspects be collected verbally or in writing. The survey can be done by personal interviews or by mail questionnaire to the people concerned. It is more feasible to interview or get questionnaire as filled in of few people who are the representatives of group as a whole.

Many magazines designed for particular purpose or readerships have cultivated mass audiences. They include TV guide which has weekly circulation of 18 million; Women's magazines such as Ladies Home Journal, Good House Keeping, family living such as Better Homes and Gardens; farm such as Farm journals.

16.2.5 Printing

Printing plays vital role in publication of the written material. It is necessary to know the recent advances in the printing technology.

1. Advance in Technology

In the print media, the development of high-transmission methods and electronic processing has speeded up and expanded the gathering, storing and transferring of words for newspapers, magazines and books, whereas teletype machines for years delivered news to newsrooms at an effective rate of about 45 words a minute, new models are capable of 1000 words or more a minute. Current information and research materials that had been recorded on paper stored in files retrieved by hand and transferred manually from office to office can now go through the same process with computer data banks and electronic terminals that require a fraction of the time. Computerization and electronic innovations have not only improves the quality of the printing but have also reduced the labor, time and cost involved in setting lines of type and other steps of the production process.

In broadcasting, pocket transistors and car radios have expanded the scope and convenience of radio. Equipment modification have improved television transmission and reception and lower the cost of Sets, Hand held cameras (minicams and handcams) have given TV Journalists mobility, they did not have with their early bulky equipment. Journalists can now record with relative ease, What is happening in Asian Village under attack, or on the floor of a political convention Stirred by debate.

Videotape which unlike film does not have to be processed, has simplified the delivery of the motion pictures to the TV screen. Communication Satellites and other technological marvels have enabled television to beam its pictures directly across oceans and continent without need of cables and Land Relay Stations, over mountains into isolated regions once out of reach and even from the Moon to Mars.

2. Prominence of Broadcasting

The spread of Radio and Television with their facility to reach larger audience than any other medium, has affected communication of information and ideas into significant ways, first radio and the transistor have crossed the political and geographical borders often closed to other media. Television has beamed into living rooms and classrooms pictures of places, people and things that in the past have been unfamiliar to most Indians that in book or in the abstract. Second the instantaneous from-the-scene reporting of broadcasting has put new emphasis on audio-visual, as opposed to written presentation of news. It has also made impossible for print media to be the first with the news and has injected drama and listener/viewer involvement that are difficult for newspapers to duplicate. The print media therefore have been forced to seek new forms and approaches that are unfeasible for broadcasting. The most notable change or trend has been towards advocacy journalism and more interpretation and investigation to give meaning to news reported briefly, albeit first on radio and television.

3. Points about Printing

The systematically successful publication requires the close cooperation between the editorial and mechanical departments. The editor's working knowledge of the nature and function of type- the basic principle of typography and an understanding the problems involved in producing an uniformly attractive publications are of immense importance. An elementary knowledge of type, therefore is desirable for a reporter and is essential for an editor.

The knowledge about the structure of type, typesets, Hand set type, Machine set type, the operation of the Linotype, the sizes of type, Styles of type, Quantity of types, type displays and so on. Additionally the working knowledge of make-up and the press work is also essential.

The back and forth motion of the flat-bed press is fast enough to print few thousand of copies. For the large city dailies a rotary press is necessary. It prints from type clamped to the outside of cylinders on paper unwounded from a large roll, the entire complex working in a fast rotary motion.

4. The Stereotype Process

Alternating type from the flat to the cylindrical form is the function of the Stereotype process. To make stereotype, the workmen places the page form fully corrected, on a solid, heated iron surface. He lays over the top a soft papier-mâché mat and subjects the combination to tons of pressure with the result that each type character and illustration leaves a clear impression or mold in the mat. After drying the mat he places it into the stereotype casting machine. There molten metal flows against the semi-cylindrical mat and form a hollow semi-cylinder of type metal with the type faces, projecting on the outside.

With one such casting for each page the pressman can build up the series called by the rotary press and run off the day's issues. Out one end of his machine came the purpose completely printed and folded, ready for distribution by the circulation department.

5. Print System

The point is a measuring unit used to express the set and body size of the types. The thickness of lead. Bread distance of ascenders and descenders and the ex-height 72nd part of an inch. In the print system the words such as Pica, Em and En are used. Pica is in setting 3 dimensional types i.e. Leads Clumps, Reglets, Quotations, furniture and Block mounts. Em is a full size square piece of relevant body/point size and En is ½ of the Em in its width. The average word in English comprising 5 characters plus one space i.e. 6 ens where as in Devnagari it is $4+1 = 2 \frac{1}{2}$ ems= 5 ens. The other relevant information about types and printing points is given in forgoing pages.

Today 5 generations of PTS are considered. Later type is set with Lasar- the machines called image setters; rather than type setters obviously with proper input, they are capable of processing the graphic images. And the machines used can be categorized as Personal Computer (PC), Word Processors, Image Processing Systems, Desktop Publishing (DTP) all in one we can say 'Graphic Computers'.

16.3 Glossary

Concise Writing: A Style with letters closed together in order to use less space.

Electrotype : A duplicate of an engraving or of printed matter made by making a mold from the original and then filling it in with metal by an electrolytic process.

Flat-Bed Press : A machine having type resting on a flat surface and printing on a paper cut into pieces.

Form : Type composition that has been made up into a designated arrangement as in a page form for a newspaper or your book.

Mat : A short version for matrix; or the mold for a type character or page.

Rotary Press : A machine having type clamped on rollers and printing on a Web of paper unwound from a roll.

Stereotyping Process : A means of converting type in the flat form to the shape of a semi cylinder that can be clamped to a roller on a rotary press.

Typeface : The part of piece of type that prints.

Typography : A term referring to methods of setting material into type.

16.4 Summary

Writing for farmers chapter has been devoted to give understanding about agriculture in Maharashtra. Additionally the sources of gathering information have been identified for its spread to the society concerned. Here emphasis has been given on the desire and right to know. It is very much essential for leading one's life. An individual can not gather the information at his level because of his limitations hence organized sector like Government, NGOs, News papers etc. are helping him the needed information by gathering it from their personnel's (reporters) who use to observe and tap the reliable sources for information about the community, in finding the theme desired. After gathering the information the same is required to be processed according to the nature of objectives. This is more applicable in respect of scientific information and is published in scientific publications like article, features, bulletins etc. which are in turn are used by the interested people.

In order to access the utility of the farm publications their evaluation is a must. It helps for further improvements and fulfills the gaps if any. There are different methods/techniques of evaluation and also ways such as self evaluation or external evaluation.

The printing is essential for publications of information to meet the needs of larger readers of the society. Hence the relevant points regarding the printing have been explained in comparison with modern tools like radio and television and limitations of printing page.

16.5 Exercise for Practice

Answer the following questions in 200 words each.

1. Explain the role of Information and Communication Technology (ICT) in the communication of innovation.
2. Write on the agricultural situation in Maharashtra in classified forms.
3. Write note on horticultural development in Maharashtra.
4. Comment on observation and sources of information.

Unit 17 : Script Writing for Radio and Television

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17.5 Exercise for Practice

17.1 Introduction

In writing for radio and television, number of activities on the part of different personalities related to these electronic media are required to be undertaken. We say all these personalities as the radio men and film makers and/or video men. The variety of activities namely the presentation for film interview, the presentation of information, models of presentations called actors and actresses, editing and special effects with equipment such as microphones and cameras are involved. Here we are going to narrate each of the activities for establishing the understanding of learners.

After the study of this unit, you will be able to know and understand :

- λ Conducting interview with advanced preparation for radio and television.
- λ The information based on science, technology, art and literature.
- λ The information presented with the help of artists i.e. actors and actresses
- λ Inhouse work like editing, special effects through photography and sound.
- λ The information on microphones and cameras.

17.2 Contents

17.2.1 Preparation for Film Interview

Certain steps are to be followed in conducting a film interview. These steps are enumerated in the following pages.

1. Film

Satyajit Ray's statement about film (cinema) is worth mentioning. According to him "the cinema combines old logic of science with the subtlest abstractions of the human imagination." No matter what goes into the making it, no matter who uses it and how a producer of financial profits, a political body for propaganda or an avant grade intellectual for satisfaction of an aesthetic urge. The cinema is basically the expression of a concept or concepts in aesthetic terms. Terms which have crystallised through the incredibly short years of its existence.

Film is one of the most effective methods of conveying ideas. The power of the film medium has been utilized to entertain, to educate and even to influence the life pattern of the people. The film is widely used to reach the people, to pursue them and to get their acceptance. As a carrier of culture and a changing mirror of the changing time, film is unexcelled. Film is a versatile means of communication. It can be produced on all subjects of human interest and includes broadly speaking, feature films, documentaries and news reels.

2. Interviews

A well-timed interview makes interesting reading in newspapers as well as in film making. Some interviews give viewers a report of the person's views on timely topics, while others prepare to emphasize his personality. When you are given an interview first learn all you can about the person you are to meet. How you will access the person, you are to interview depends on circumstances. In some cases you can arrange for the interview over the telephone. A call at the person's place of business is often effective.

Plan your questions in advance of the interview. During the talk endeavor to show poise and to put your subject at rest, so that you can get a true image of his personality. The person interviewed may not express what he really thinks. Take sufficient notes, but do so inconspicuously.

(a) **Organization of Interview :** For standard beginning employ most of speech reports lead. In the body of the story vary direct with indirect quotation. If you can build the interview ground theme, you will more effectively achieve unity and coherence.

(b) **Before Interview :**

1. Prepare in advance. This can be the key to success. Nothing can be turn off an interviewee faster than a interviewer, who doesn't know what he is talking about. If the interviewee is a musician, listen to his recording. Preparation enables the interviewer to ask the right questions and understand the answers.
2. Settle on theme so that the line of questioning will have purpose and logic.
3. Workout a set of intelligent questions that will go beyond the obvious information obtain through research and that will fulfill the theme.
4. Be on time for appointment, dressed properly and prepared with all necessary materials.
5. Identify yourself and state the purpose of the interview. Make clear that the material will be used and indicate how much time the interview is likely to take.
6. Clarify whether any of the interviews will be off the record and not attributable to the source.
7. Ask the interviewee if he minds you using a tape recorder, camera if you have are or taking notes while he talks or acts.

(c) **During Interview**

1. From the outset, be a good listener. You are then to get specific information. Do not waste your time by asking the obvious, by lecturing the source, arguing or debating.

2. Tailor your overall approach to the interviewee. A casual mood may be more appropriate for an artist-actor or actress.
3. To put the interviewee at ease, start with easy questions. Then follow the set line of questioning in logical sequence, allowing one question to flow out of the previous one.
4. If the source is reluctant to answer a question, skip it for the moment and try another approach in later in the interview. By then he may feel more kindly towards the question. Suggest that a “no comment” mean the story may be unbalanced or less accurate without his information.
5. If answer suggests another line of questioning deviate from the set of questions and then turn later. But do not let the source story off onto irrelevant tangents; the reporter should maintain control of the interview.
6. Do not be afraid of naive or embracing questions. And if an answer is not exactly clear, ask for an explanation. Read back an answer if requested or when in doubt about the phrasing of the crucial material.
7. Observe the interviewee’s dress and mannerisms and confirm his/her vital statistics, such as name, address, age, education, job held, and family etc.
8. Throughout the interview be accurate and through with your note-taking, photo/film coverage and get plenty of good quotes.

(d) After Interview

1. Review your notes, film coverage if possible. If you forget an important question or if an answer is not entirely clear, check back with the source immediately.
2. Do further research that may be necessary for the back grounding points make by the interviewee.

To sum up the interview as the method of dialogues between two individuals one plays the role of interviewer and other plays role of interviewee. Prior to interview one has to decide the subject with theme which may of variety of subjects like agriculture, rural development, communication and transport, health, education and

livestock etc. The questionnaire need to be prepared known as interview schedule which includes series of questions, statements for opinion assessment etc. and the arrangement of the schedule and/or questionnaire need to be from simple to complex, with face data of interviewee. There after the process of the actual conduct of interview starts with welcome to each other say 'Namaskar'. The interview speed needs to be enhanced with shortest possible time so as to avoid the monotony of the interview. The responses of the interviewee should be recorded in a casual manner so as to bring spontanousness in the conduct of the interview. If the interviewee is actor or actress then his/her roles played in films may be recorded or they should be requested to play as the actor or actress. This helps in sustainable interest in the interview.

After interview which is to be concluded with thanks or congratulations if achievement of prize etc. the listeners/viewers should get satisfaction. Thus interview is :

1. Special technique of dialogues.
2. In interview, the list of questions/statements should be thoughtful.
3. Good beginning is well done is applicable to interview.
4. By asking sub-question the speed of the interview can be enhanced.
5. Avoid those questions which has already covered.
6. Main theme of the subject needs to be adhere too.

17.2.2 Information Presentation

The 'Presentation of Information' puts things on much broader base than just 'writing'. Presentation includes writing, speaking and showing as well as the combination of these three. It is multifarious activity and also ways to be taken to peoples who may be viewers and listeners. There are different means of presentation of the information such as : bulletins, circulars, leaflets, fact sheets, wall newspapers, news, articles, letters, talks and speeches at meetings on the radio, television, demonstrations, field days, tours, short courses, picture charts, exhibition, flannel graphs, chalk boards etc. When we add up all these we practically cover in entirely, the job of extension education or services.

Extension education is one of the most important roles to play by the farm universities, where research results are carried by the extension educationist and extension agents to the farmers in the forms of technology, when it is recommended by the researchers.

Agricultural Universities will reach their potential only if they are strong enough in teaching on campus, research on fields and laboratories and extension education in the farmers' fields. Hence we expect that there should be closed coordination among the above areas. This three pronged approach is also expected not only in farm universities but also other universities. Every time a university reaches out to the people, it is engaged in the extension function. It may be reaching through printing page, radio talks, television presentation and the like.

The important element through out is the people. It is true, of course, that we have a need for much basic or fundamental research and work in the pure science as well as in the applied science, but even here in the final analysis, the important element is people.

What should we attempt to do when we present information to people? When we present information to people, we should try to communicate. Effective communication is synonymous with mutual understanding and also with education. Communication is, who says to whom? with what means? with what purpose? with what effect?

How do we obtain mutual understanding between two individuals? First we should note, that it requires mental activity resulting in a back and forth transfer of information between two minds. This is not accomplished when the transfer is only in one direction. That is why it is so important to have some means of getting feedback from whatever type of communication have undertake, whether it is from speech we give, a newspaper article we write, a radio program we put on or just our daily conversation.

In the presentation of the information the cone of experience developed by Edger Dale is interesting. This is a triangle with a cone apex, where one can get an experience with our senses on selective and combined bases. At the tip of cone or triangle we can only hear. Thus we can get the experience of hearing by our ears. And

then we see. Thus we get experience of audio and visual. Then comes to line of tasting and touching with hearing and seeing through our tastes and touch sense. So our area and intensity of experience increased. Finally we can use all our senses i.e. hearing, seeing, touching, tasting and finally dramatized. The dramatic experience is more vital for our understanding. So presentation of information through role playing drama or cinema or TV one gets full information which gives us dramatized experience. Our traditional media like 'Katha' Bhajan, Kirtan, Pravachan, Loknatya, Powada, Abhang, Bharud, we get the dramatized experience and also we get full understanding of the subject. These are the best methods of presentation of ideas, stories, news etc.

Presentation of information means to pass on the message (technical or otherwise) from source (may be person, organized source like radio and TV) to the Receiver through some medium may be words, sentences, pictures, photos, samples etc or spoken language through channel to the carrier of message to the receiver who after getting the information reacts and gives the response to the source known as feed back. So effective presentation of information must have maximum empathy between the presenter of the information and receiver of the information which depends upon the knowledge attitude and perceptibility behavior of both sender and receiver and the kind of message (information) and the medium and channel.

To summarize, let us come back to the question we started with. Why is it important for us to understand the communication process? If communication means mutual understanding, it is vital that we understand what we are doing? When we try to communicate? When we present information to people? We should be concern with the receiver as well as transmitter. It should be remembered that the job to be done is to communicate. To communicate we must reach people. To reach people, we must arouse them, stimulate them and cause them to be receptive to the information that we are anxious to impart for their action and to get them to apply information in their condition and situation.

17.2.3 Models of Presentation

Models bring liveliness to the presentation and they should be prepared with at most care.

What are Models?

We can solve both complex and simple problems of the practical world if we concentrate on some portion or some key features instead of on every detail of real life. This approximation or abstraction of reality, which we may construct in various forms, is called model. Models do not and cannot represent every thing or aspect of reality because of innurable and changing characteristics of the real world to be represented. Models deals with the relevant variables and often impact on decision situation.

Many forms of models exist and the particular form selected depends upon the purpose. Generally models may be used to define or describe something to assist with analysis of a system such as social system to specify relationships and processes or to present a situation in symbolic terms that may be manipulated to derive the predictions. This last purpose to provide a particular system say the marriage system that can be manipulated to aid a decision maker, is perhaps the most important attribute of models. It may present information in different forms i.e. roles, pictorial forms, specimen, graphic forms, mathematical forms where analysis is possible for establishing the understanding of the subject and object relationships.

We have defined the purpose and nature of models and classified the functions by their presentation, utility, time reference. Models are used not only for decision problems but for analysis of evaluation of complete systems. System efficiency, response and system simplification may be studied by means of system modeling.

We have sufficiently discussed above the information presentation to the people with the help of communication process. Here we are going to deal with the model of presentation. For radio we present information through written material and present it in the form of a talk. We also present the information through discussion may be group discussion where 3-4 speakers take the different roles and play it through dialogue through discussion which is known as group discussion on any of subject and its theme. For example, if the discussion would be about watershed management then the issue would be discussed by the experts to the laypeople like farmers, farm women and the local teacher of the school. Another way of presentation information is through interview of the expert may be agriculturist, doctor, engineer, artist etc.

The experts in their fields are asked series of questions and they present them in answer form with relevant examples of practical nature. The next form of presentation is known as 'Rupak'. The main objective of this form is to provide historical events. Large number of events occur in the life of an individual. These events may be good or bad from which one can learn. Saint Dnyaneshwar, his brothers and sister faced good and bad experiences in the traditional and orthodox society. They reacted to these events courageously. In spite these odds they advised the society through the book 'Dnyaneshwari' the most significant and meaningful book ever written by Dnyaneshwar.

There are also different models of presentation to the people by our saints namely; Saint Eknath Maharaj of Paithan, Saint Tukaram Maharaj of Dehu, Saint Choka Mela of Mangalweda, Saint Sawata Mali, Saint Namdeo Shimpi of Pandharpur who presented their literature during their times were Bharud and Gavalan, of Eknath Maharaj, Gatha of Saint Tukaram, Abhang of Saint Choka Mela, Sawata Mali etc. They have presented information to people through 'Bhakti' (Prayers) and carried the message with examples. Ram Joshi, Pathe Bapurao established the 'Tamashya' presently known as the 'Loknatya' to people, wherein the forms of 'Gangavalan' and main theme in the form of 'Vag' meaning thereby feature stories of Lord Krishna, Lord Rama etc. Lok Sangit in the form of Natyagits, Koligits were also different models of presentation. In Konkan 'Dash Awatara' drama is presented at the time 'Holi' festival is another model of presentation of information. All these traditional models of presentation are now used by the electronic medias like Radio, TV and Films.

17.2.4 Editing and Special Effects

The extra effort you put into writing and editing your paper may be for printed page, radio script or television presentation will mean less effort on the part of your reader, listener or viewer. Clarity is the main goal of editing. Make your copy crisp, clear and concise. Avoid the use of words set in capital letters, underline words, dashes and exclamation marks. After long sentence try a short one.

(a) Editing

It is necessary to consider certain important aspects in editing the written material. The points to be remembered in good editing are discussed in the following lines.

Stick to your central theme. If you are writing a leaflet about how to get rid of rats, tell how.

Weed out unnecessary phrases and clauses that get in reader's way. "it is well high imperative that a new stronger relationship which is founded upon mutual understanding and appreciation should be developed between the buyers and sellers" (27 words) "Buyers and sellers should get together" (6 words).

Weed out unnecessary words, empty words such as conjunctions, preposition and articles. Weed out unnecessary conjunctions like 'and', 'as', 'while', 'because', 'sometimes'. You can replace them with a semicolon. See how you can improve these sentences by omitting the words in brackets. "Beware (of) the pitch for k; (as) it is a dangerous Weapon". "The show rooms are on the first floor; (while) the upper floors are used for storage". It is best to use while sentences denoting time such as: "The furniture arrived while she was away". "She felt that her manuscript was unreadable". Weed out prepositions that pick up in sentences, Weed out articles: a, an, the, Weed out compound propositions and conjunctions such as in as much as, in so far as, Avoid vague adjectives and verbs, Weed out dangling participles, Trim words but not the meaning. Do not take short cuts at the cost of clarity, No: Do not be negative, Yes: Be positive, Do not be passive, Do not be redundant, Do not be impersonal, Eliminate unnecessary words.

(b) Check these Points

Mixed tenses, Dangling modifiers, Non-agreements. "The use of radio. television and news releases ensure the success of programs" Say "The use of radio, television and news releases ensures the success of the program". Careless repetitions, Redundancy, Abstract nouns, Empty nouns, Headings, Circling, Mixed construction, Capitalization, Numerals, The Hyphens etc.

The editing process helps in following ways:

1. Ensuring accuracy,
2. Trimming unnecessary words,
3. Protecting and Polishing the language,
4. Correcting inconsistencies,
5. Making the story as per style,
6. Removing confusing statements,
7. Eliminate passages in poor taste.

The material received by the editor sent by the writers are normally not written in a manner as desired by the editor of publications. Therefore, the material to be printed is brought into proper shape before printing.

The editing process consists of the following aspects:

1. Correcting spelling, changing appropriate words, putting commas or semicolon i.e. grammatical corrections.
2. Editor should read the story or written material entirely and get overall picture about what writer wants to say.
3. Editor should find out that whether the story was written properly or anything is missing.
4. Does it answer all questions about the subject the readers might ask?
5. One should find out whether it contains more information.

Keeping all these points in view, the editor should make the notes in the margin. Then think of the general standard of education and understanding of readers of the publications. The story should be written at their level of understanding.

The other aspects of editing are as follows:

1. Organization of the story,
2. Weeding out the unnecessary thing,
3. Giving life to the story,
4. Retyping and getting a clean copy,
5. Printing instructions,
6. Checking of first proof,
7. Presentation of dummy and
8. Using proof reading symbols.

(c) Special Effects

Special effect may be sound in a Radio Play. A radio play could be an original or an adaptation of story from an Indian language. However, playwright should keep his listeners in mind who are Indians and that would prefer to listen to a family story. The radio play among all the 'Spoken Word' programs is the most difficult one to produce. It has no visual support and the performance depends upon the voice of the actors.

In a radio play, sound effect plays a vital role, next only to the acting ability of your host. For the complete effect of an old man smoking a hukka, the sound has to be recorded. These minute details create the atmosphere and help build up the play and the listeners often enjoy these familiar sounds more than the dialogue. The music is an integral part of a radio play. It helps create the mood of the play. A careful selected piece of music would do to a play that is, create the exact balance of mood and atmosphere. Dramatization is a very important component of a radio feature. This does not mean that you have to have dramatized dialogues spoken by two or more characters. It simply means that certain point has to be highlighted through dramatization to a greater impact on the minds of the listeners. This can be achieved by means of narration, sound and music.

In some studies sound recordings are played in the control studio and are wired into the mixing panel without the actors hearing them. The better practice seem to be to use the recorded sound effects in such way that they will be heard by the actors and picked up by the same microphone that picks up their voices. The larger studio has multiple turntable equipment which may be rolled into the studio in which the drama is to be presented. The multiple turntables are used in order to blend sounds. For instance, a play may be taken place in the interior of a freight car. One of the records being played will be the noises heard in the freight car while the other will be noises of the engine and the train itself. In the ghost story recording, one record may bring in the shrinking of wind while another record conveys to the listener the sound of howling wolves. The playing of a recording of artillery fire at a slow speed has been used for thunder.

The noises of records must be rehearsed since it is often their volume which is most important. Not all sounds are created by such recordings. Experimentation must be conducted by dramatic director or sound effect man in the local studio. In the studio there will be planks which may be laid upon the floor in order that the actors may walk upon them to create the sound of walking upon a stage. Very simple things may be used to create the sound. The radio warrior selects his swords by the ear and every 6-foot length of chain carries a different sound picture to the listener.

Sound effects have other uses than those already stated. In many cases deliberately unreal sounds are used to aid in creating a certain effects. Sound effects may be used in an expressionistic fashion; for example the use of a clock or a metronome to help emphasize the slipping away of precious time.

17.2.5 Microphone and Camera

Microphone and camera play vital role in the use of Audio-Visual aids. The various types of microphones and cameras are available in market.

1. Microphone

There are three general types of microphones in current use in broadcasting stations. These microphones, which are manufactured by more than 70 concerns, have many different trade names but fundamentally they are crystals either velocity or dynamic microphones. The crystal microphone of Rochelle-salt crystals about 1/100 inches thick. The sound waves hits these crystal slabs and cause them to vibrate and bend apart; the vibration sets up a weak voltage, which varies with the sound pressure upon crystals. This type of microphone is very rugged, not easily damaged and comparatively inexpensive. It has very good tonal quality but is more frequently used for public-address and recording work than for actual broadcasting. This is known as 'Directional Ultra Sensitive Crystal Microphone'. There are also all purpose crystal microphones. There is also non-directional crystal microphone of the diaphragm crystal character. The microphones of this type are very satisfactory for both speech and music.

The velocity type of microphone is frequently called the 'ribbon mike' and justly so because its operation depends upon the vibration of the very thin corrugated duralumin ribbon suspended between the poles of the strong magnet. When ribbon is set into motion by sound vibrations small electric currents are developed in it which are then further amplified. The ribbon microphone is equally sensitive on the two opposite sides which represent the broad faces of the ribbons, while it is comparatively insensitive on the other to edges. It is excellent type of microphone to be used for a quartet or to be placed in the center of an orchestra. The duraluminum ribbon is hung in the bottom of a V-shaped trough. The result is that speakers do not talk across this microphone, but into the trough. The velocity type of microphone is manufactured by Radio Corporation of America and is of the standard broadcasting type.

The principle of the dynamic microphone is essentially that of the dynamic loud-speaker. It consists of a diaphragm on which is mounted a small coil of fine wire. This, vibrating in the field of a strong magnet, generates minute electric currents proportional to the incoming sound waves. This causes the coil to move in a powerful magnet field and electrical impulses results. The dynamic microphone may be constructed as either a directional microphone or a no directional microphone. The two most popular types at present are the 'eight ball' and 'salt shaker' types. Two interesting microphones are the machine gun and the parabolic. The machine-gun accessory consists of series of tubes strapped together through which sound is conveyed to a dynamic microphone which fits into the end. This type of equipment is designed to reduce revibration and extraneous noises in distant pickups.

2 Camera

The most desirable camera for general use is the Speed Graphic. This is an expensive piece of equipment, but its usefulness makes it well worth the cost. In addition to the host of the features, it has following:

- (i) A fast lens,
- (ii) A focusing device that guarantees sharp pictures,
- (iii) Flash equipment highly synchronized with one or two shutters.

- (iv) An excellent view finder,
- (v) A device for ground glass check on the picture,
- (vi) A shutter behind the front lens for the ordinary run of pictures,
- (vii) Handy film holders or film magazines.

The most practical size of a 4 x 5. The Crown Graphic or B and J Press Camera is also recommended. It is similar to the Speed Graphic, but is without the focal plane shutter.

A good Secondary Camera is still the Graflex type. With this kind, the photographer can look through a hood at a ground glass plate and see exactly what he will include in his picture. Its lens and shutter- the focal plane type- make it especially useful for taking pictures of sports groups or actions. This camera may be bought with flash equipment. It is bulky to carry around and it is not easily managed for time exposures, since the shutter often jars the camera.

In the market today are several kinds of cameras built like the Graflex and extremely handy for both amateur and professional photographers. They are known as reflex type. An outstanding example is the Rolleicord, which is made in Germany. In such cameras there is opportunity to see on a ground glass exactly what is being photographed and to note the exact size of the picture- a device exceedingly useful for learners. The handy features of this type are a fast means of focusing and a roll film. Another camera which is fast developing into highly useful instrument is the Polaroid. This is a real boon to staffs, who do not have available darkrooms since, within a few minutes after the shutter is snapped, a good print is available-sharp and contrasting enough to make the usual halftone plates or new and cheaper plastic cuts. Several other types of amateur cameras are now in the market that can produce satisfactory snapshots for publications. These should be equipped with flash attachments.

17.3 Glossary

Dialogue : Conversation between characters or persons in a story.

Diaphragm : The device that adjusts the opening in front of the camera lens.

Dummy : A special blank page or blank book used for planning something to be published.

Exposer : The act of opening a camera lens to take a picture.

Fast Film : Film so made as to allow picture taking with short expose.

Focal Plane Shutter : A type of camera shutter that operates like curtain. Light comes through slit-like openings.

Focus : A sharp image obtained by adjusting the distance of the lens to the film or plate.

Halftone : An engraving that reproduces photographs.

Polaroid Camera : The trade name for a camera that takes a picture, then rapidly processes a print by a internal apparatus.

Script : A style of type designed to resemble hand writing.

Shutter : The device on a camera that opens the lens for a picture and then closes it.

17.4 Summary

Writing for Radio and TV consists of interview preparation for and the information presentation, its model, editing of the written matter with special effect and the equipment used such as microphone and camera. The contents would establish the knowledge and understanding of the students of Journalism.

In the interview preparation for film and also for the other media the care must be taken by the interviewer and a battery of questions need to be prepared before conduct of interview. The planning aspect of interview with the relevant subject and its theme. During interview an interviewer has to create a free atmosphere.

The subject of presentation of information demands for inputs of information on broad base. It includes the subject with theme, written matter, spoken words with audio visual aid with proper combination so as to help it to establish understanding of the listeners and hold their interest. The information presentation through different ways and models is the effective one where the subject is presented through various forms and/or model like traditional models, use of modern electronic models for them and relevant aspects.

The editing of the materials produced by the authors or writers is a specialized approach before final publication of printing page. Various rules have been indicated in the editing process which are expected to be binding on editor. The issue of special effect is confined to sound effect that is used in the studio of Radio or Films or Television. The dramatized presentation of 2-3 characters is made effective by creating the situational atmosphere so as listeners hold their interest.

The information on microphone and the cameras is presented which explains the types available, suitable and their use in presenting of information through AV aids like Radio, TV and Films.

17.5 Exercises for Practice

Answer the following questions in 200 words each.

1. What are the preparations necessary for an interview ?
2. Define models of presentation and explain different models of presentation.
3. Describe the role and functions of microphone and camera in interview on doordarshan.
4. Explain in detail the care to be taken by interviewer before conducting the interview.

Unit 18 : Farm Photography

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- 18.5 Exercises for Practice

18.1 Introduction

In journalism, one must make use of photography library. Some of the picture magazines like CINE, there is liberal use of photo pictures with less written matter. It is said that a good picture or photograph speaks for itself without the support of the written words. Written words cannot tell everything clearly and precisely unless the words are supported by pictures. Man first created pictures to communicate in the early days of civilization. Man attached meaning to words for a quick and easy expression. Laubach (1957) has pointed out that all types of illustrations including the photos are useful for literates as well as illiterates and are easily understood by the readers. Photographs are a part of illustration, which depict the reality of world may be human being, animals, birds, global views etc. Hence, in modern age the importance of the photography as an enterprise is enhanced.

After the study of this unit, you will be able to know and understand :

- λ Different types of photography like still photography, motion picture, film strip.
- λ Press photography is used in the journalism through which varied publications are published with photographs.
- λ Motion pictures used for films and television as well as in videos are action oriented.
- λ The use of photographs still as well as motion one in the business.

18.2 Content

18.2.1 Types of Photography

Recently photography is advanced to a large extent. It has taken different forms according to its use.

1. Photo-Journalism

During the last few years, there has been a welcome spurt in the use of photographs to illustrate news stories in both the dailies and periodicals. The photographs have indeed emerged as a vital means of communicating more effectively in the press, television news, documentaries and advertising. The ‘new glossies’ and tabloids in particular are using photographs with telling effects and in providing appealing layouts. With sophisticated printing processes, the reproduction has come to have clarity and depth. They have come to have greater impact now that they are transmitted by wire and by radio. The result is that nearly all dailies and general interest magazines are ‘illustrated’ profusely. Captions to photographs give them even greater significance and impact value. Together, they inform, persuade and entertain as effectively as any other mass media. Newsreel men and television news cameramen should also be considered as the photo-journalists.

Photographs are classified into following categories:

- (i) Photographs are black and white

- (ii) photographs are used on cover page of magazines or books in natural colors
- (iii) photographs in film strips may be black and white or colors
- (iv) Photographs in motion films, photographs may be placed on exclusive basis in case of both news photographs in features and articles.

The photograph collection includes photographs on development projects, industries, agriculture, places of tourism.

2. Types of Photographs

If possible, staff should have three kinds of photographers for the pictures headed for both newspapers and year book. For portraits they should employ professional man. The latter will appreciate the business, give the publications their advertising, and help maintain the good will of business. They have skill and equipment for portrait work and so critical of their pictures, when they appear as portraits that the staff should rely on professional aid to produce what is wanted. For group photographs where a high degree of skill in handling the camera is involved and where it is necessary to have the voice of authority to line up the individuals for a picture, the publication may well turn to an experienced teacher or two.

There are following various types of photographs which are used for various purposes.

- (a) **Publishable prints** : They are prepared on glossy papers and never mounted. Each acceptable picture must give proper emphasis to the subject, must have sharp focus and must have story contrast
- (b) **Snapshots** : Most snapshots are of the posed type. The position of the persons concerned is informal, often characteristics of some phase of life. The emphasis must be on people and the resulting pictures must show faces so large and so clear that they will make good engraving. Most snapshots are taken by flash camera. Many snapshots in day light can be taken about the campus and on the field on bright days. For these the photographer should rely on his exposimeter to get correct timing and diaphragm opening.

- (c) **Candid Pictures** : They call for directing camera on people when they are in a most natural position and for keeping them unaware of what is happening until the shutter has clicked. A superior camera for candid shot is the reflex type.
- (d) **Group Pictures** : Pictures of group are formal. Common practice in photographing groups calls for arranging the person on steps outside the building. Often weather spoils the planning for outdoor pictures. A means of taking group photographs inside the building is therefore desirable.
- (e) **Pictures of Athletes** : Most pictures of athletes and athlete competitions are taken out of doors. These pictures call for careful exposurer and for the cooperation of coaches in planning for the right time and place.
- (f) **Athletic Action Shots** : Action shots for day light call for a camera with fast lens and for a photographer who is skilled in handling such camera. Base ball and track events are easier for the photographer in that he can focus on a base or home plate or in finish line or pole vault standard, cock his shutter, and be ready to click at the instant a participant is centered in his view finder.
- (g) **Faculty Photographs** : Taking photographs of teachers presents special problems. Teachers can be photographed in larger groups or in small groups, the latter often be arranged by school departments or teachers can be presented informally by means of snapshots which show them in characteristic attitudes.
- (h) **Campus and Interior Shots** : These pictures required for news paper or your book and are made of varied by photographing the building, the campus from an airplane or from the top of a tall building, close-ups of certain features of the buildings, attractive spots on the campus and art features or the campus such as statuary fountains and ports.
- (i) **Photographs in Advertising** : The use of photographs in the advertisements of publications makes the messages more attractive to the readers. The pictures must be timely ought to show well known and good looking young people and ideally, should show the article advertised in

actual use. The pose should be as natural as possible. The job calls for cooperation among advertising staff, photographers, and business men, the latter often making find decision as to what should be included in the picture.

18.2.2 Press Photography

Publishers can make skillful use of illustrative material, while sending the news releases, features and articles to the newspapers and periodicals.

Photographs have many advantages over the written word. A picture can be worth thousand words. It enhances the meaning of news story or features or article. The hurried reader may miss a news story but he would hardly miss the picture. Through, the reader absorbs the message at a glance. Also unlike news releases the photos can seldom be altered by editing at newspaper articles.

Most of the pictures clarify, support and explain feature stories. The reader learns faster and remembers longer through pictures. The publicists can make his subject matter more lively and realistic, if it accomplished by photographs. With the help of pictures, he can even cut down the length of his story or feature.

Photo-editing

In selecting of news pictures the prime consideration should be context in which the picture is being used. The picture should have information related to the story with which it is to be used.

A good news photograph should reflect the feelings and responses of the people photographed. Even routine events yield good photographs, if the people are caught by the camera in action and their feelings and emotions are expressed on the faces. Animation is one of the prime qualities of a good news photograph.

A photograph should reflect the mood of the moment. Even selecting from file pictures care should be taken to select a photograph which depicts the right mood, when a person is sacked, a picture depicting him in a happy mood will be misfile. Like words pictures also have meaning. There are occasions when symbolism could be effective to impart meaning. Sometimes comparison provides meaning to pictures.

Looking at certain photographs one is surprised what little eyes can see when the event is taking place. Action photographs are of this category. In sport events and cultural events action photographs depicting the climax of a movement, if captured by camera becomes an exciting picture.

Camera is very much similar to the note book of a trained reporter. It should catch the key moments of the events that are most relevant to the news sense and it should be sharpened by selection of his most newsy pictures by the photo-editor.

Only a photographer with a keen news sense will be able to catch decisive moments of history with his camera. In every event there is a sequence action of which only few moments at the climax and only one of them is really decisive.

The photograph once selected has to be edited for size, shape and story content. The basic determining factor is the story content, because it determines the size and shape of the photograph or whether the photograph should be use at all.

Many photographers of international repute argue that a good photograph should never undergo cropping. While cropping the emphasis should be on the story and what is in the picture. One may remove irrelevant portion of the picture. Shape of the picture is also decided by the story content.

While determining the size of a picture, emphasis should be on legibility and impact. Legibility determines the minimum size of the picture and maximum has to be determined by the availability of space, competition from other news pictures or stories. It should be seen whether giving a bigger size justifies the expense of space by increase in the impact. Space should be used with discrimination to ensure the photograph which really needs it should get it. Cropping is a creative job. Looking at the above factors one has to identify the key image in the photograph and enlarge it to give maximum information or impact. The words with picture should match. The reader must be told what, where, when and why of the photograph. If explanation improves the understanding, the key factor should be given.

18.2.3 Film and Television Photography

The films and television photography is important for the topic to be presented. These aspects are as follows.

1. Films

People who will not attend any kind of meeting will go to see films. Films is one of the most effective means of arousing interest. They are good for teaching. As long as good teaching films are scarce, films should be used primarily to get people to attend meeting. The picture should not be used alone. It should be used in connection with a definite program or campaign. It should be supplemented with literature, posters, demonstrations and discussion and it should lead to action.

In the process of film making, the items like scripting, costing, rehearsing, shooting, sound track, editing, production etc. are involved. The relevant aspect of photography in film is shooting of the film, where role of camera man and his move photographs are important.

2. Film Shooting

The shooting of a film is done on location and/or in a studio. On location shooting is generally outdoors and is more time consuming and expensive; studio shooting, on the other hand, is more convenient, better organized and ideal for lavish sets and for special effects in visuals and sounds.

The man who plans and supervises the studio sets is the Art Director. The camera man who takes the shots under the instructions of the director, uses lenses depend upon the angles of vision desired. Normal lens cover an angle of 43 to 46 degrees and short lens an angle of vision above 45 degrees and telephone lens an angle of a vision of just a few degrees. Thus three camera angles can be identified: objective, subjective and point of view. Then there are various types of shots and movements, a cameraman resorts to in order to produce particular effects. Shots may be long, medium or close, depending upon how much of a person or scene is observed on the screen. Camera movements such as a 'pan' a 'dolly' a 'track', a 'tilt up' or 'tilt down' are equally important in the shooting of a film.

3. Film Language

The French poet and film maker Cocteau called the cinema 'Picture Writing'. The language of film, however, is not the language of words. It is primarily in the

qualities of its images and sounds that expensively of cinema must be sought. The film makers have a number of ways of modifying the camera's neutrality and thereby, the reality, that is conveyed to the audience. It is largely by means of these devices that the film becomes such an expensive medium. Though the director has the ultimate control over the visual image, it is the cameraman who actually records that image on film, translating the director's ideas and creating the atmosphere and the look of the film. Editing is the most important technique of film language. It involves the process of trimming and piecing together lengths of films in order to make an artistically concise and complete product.

The modern film director is the person most responsible for the ultimate style, structure, content and the quality of a film.

4. Photography of Television

Just as the printing press had democratized learning in the 15th century, Television (TV) democratized experience in the motion age. TV can transport the viewers to the actual sense of action to see things as they are made. In India, TV was introduced as an experimental measure in 1959 but its rapid growth comes about only in the eighties. As an instant medium, TV is ideal for news presentation. TV news unsurpassed in its ability to transport viewers to the scene of action, giving the audience, a sense of excitement and involvement that can not be matched by any other media.

SITE (Satellite Instructional Television Experiment) was a big leap forward in the application of Satellite technology for education and development. The subjects of development like education, agriculture, health, family planning. To explain for example the subject of agriculture, the Ministry of Agriculture set out the following objectives for SITE:

Dissemination of information and demonstration of dryland farming advice on poultry and animal husbandry, recommendation of practices for crop and their management and so on. Presently the agricultural programs in Maharashtra are covered under the programs of 'Amchi Mati Amchi Manasa', by doordarshan through Sahyadri Vahini (Channel) and 'Annadata' by ETV Channel for the agriculturists where the visual information with the help of still as well as movie photographs is explained by

the agricultural scientists, extension workers and progressive farmers to the audience. Broadcast of information regarding organization in the district which are responsible for supply of agriculture inputs such as seeds, fertilizers, implements and services in marketing, credit and so on. Giving advice and demonstration on pests and their control measures, Broadcasting of Weather Forecasts and market-trends. Narration of success stories, preferably within the region and other relevant news.

5. Behind the Scenes

There are certain things which are not seen on the television but are important for production of the programme

(a) Television Production

As in cinema the ‘glamour’ of TV charms only the viewers and perhaps a few participants in the programs. For most of others who move behind the scenes the making of a program means a lot of hard work and many anxious moments. Meticulous planning and flawless execution are expected from the TV folk for even a slight mistake appears a blunder on your small screen. Remember the time the news reader was seen making herself up just before the news went on the air or when there was a mix-up in the visual and the accompanying sound track?

The production of TV program involves many more skills as well as much more sophisticated electronic equipment than those for a radio program. The Director leads the team of professionals which includes the producer and his assistants, a Video Editor (Vision Mixer), a Sound Engineer, at least two cameramen, Lighting and Art or Set Director, a Graphics Editor, Make-up Artists, a Floor Manager and Technicians. Each of them has a specific role to play, but it is the co-ordination of their roles that makes for the technical excellence of a program.

Video or TV cameras are different from movie cameras. Video cameras convert the optical image which is projected on a plate made up of light sensitive cells, and is scanned by an electronic beam. The signal is sent to a receiver (a TV set) either through air or via cable and an inverse function takes place. The signal is used to control the scanning of an electronic beam, with a cathode ray tube. The electronic

beams strike the surface of the tube which is created with phosphorous, that emits light when struck by the beam.

Cameraman wears headphones over which they get instructions on angles and shots from the Director/Producer in the control room. The Floor Manager guides through sign language with the participants in the program.

(b) The Vision Mixer

The selection of shots is made with the help of the 'Vision Mixer'. This is an electronic system which allows the director to choose any camera for on-the-air channel and to produce special effects from camera shots. More sophisticated 'mixers' provide for an input for 20 video sources and for up to 54 different special effects. Some of more common special effects are: The Wipe, The Super imposition, Corner insertions, Circular iris, Split Screen, Fade in, Fade Out, Zoom in, Zoom Out and Dissolves.

(c) The Character Generator

For projecting titles such as names of news readers or participants in discussion or quiz or other graphics such as charts, maps, tables etc an electronic 'character generator' is made use of. Earlier such information used to be written or sketched on poster boards which were placed in front of the camera. The electronic character generator consists of a letter keyboard with additional keys to the side of the keyboard. The information is typed in the desired style and format and then projected or stored in a memory bank for future projection.

(d) The Telecine

A word coined from the first part of the words 'Television' and 'Cinema'. It is the telecine system, sometimes called telecine chain, is an electronic device which can transfer super 8mm film, 16mm film, 35mm film slides to standard TV format as well as pickup displays, rear screen projections and limited live action scenes. It is particularly useful for transmitting feature films, documentaries and slides most of which are on the film.

18.2.4 Scientific and Technical Photography

Increasing use of visuals is being made in presentation of the scientific and technical data. The purpose and modes of presentation is important in this regard.

1. Growth in the use of Visuals

There is fast developing trend towards the visuals in presenting scientific material. The first medium of visual presentation of wide usage was the 2" x2" slide. This has been supplemented to some degree by the overhead projector.

It is advisable to use a combination of teaching methods by including visuals. The combined effectiveness of two or more methods used to complement each other may be greater, the sum of the effectiveness of the same methods, when employed independently. In other words, the mediums of presentations need to be understood and used effectively. This awareness is increasing among the communications, with the result there is growth in the use of visuals.

In this era of computer the presentation of scientific and technical information is made through 'Compact Disc'. With the help of DTP for lettering and scanning of photos of scientific and technical materials may be of microscopic nature is gathered on C.D. and is presented to the audience with the help of device of the computer mouse. For the purpose one has to photograph the scientific and technical material such as seeds of High Yielding crop varieties, grains of the planting material, sporulation in fungus and cell division in bacteria, with the help of electronic microscope mounted with the electronic camera or suitable device and then such photographs with captions can be scanned and depicted through C.D. with the help of computer.

2. Pertinent Questions

In preparing visuals, we should ask ourselves two questions: 1. How consistently have I made certain, that the projected images will be visible to all the members of the audience? and 2. How critically have I examined each projected image from the angle of the viewers?

3. Visual Copy versus Manuscript Copy

The main sources of most of the tables, graphs or figures to be used by the prospective speaker are theses, annual reports, articles etc. You may make 2" x 2" slide or transparency or the C.D. to cover projection directly from the manuscript copy. However, consequent on projection you will probably find that:

1. The table number is meaningless
2. The title is too long to read at a glance
3. There are too many footnotes
4. At least one half of the columns of numbers are not likely to be used by the speaker.

You will probably conclude that the manuscript copy is not the visual copy. Here, then are a few rules for preparing a copy for 2" x 2" slides or transparencies or C.D.

4. Making Slides

Most of the photographers can make for you a set of slides on a rush order. However, they may not be the best; he could do, if consulted well in advance. The types of slides to be prepared are as follows:

- λ **Black and White Positives :** The negative is printed to a positive transparency, using the same kind of film. They may be made directly by the use of black and white direct positive films. Maximum time and skill is required for preparation of such slides.
- λ **Direct Positive with Color Film :** This is rated as the standard slide type and takes minimum time on the part of the speaker, but maximum time from exposure of film to a usable slide. A slight over exposure may impose such slides.
- λ **Negatives :** Most of the negatives are often used by amateurs, who have no time to wait for the photographer. The results may be appropriated only by the atrocious, use low contrast film.

In photography, the copy must be illuminated uniformly. This may be achieved by taping the translucent copy to clean window glass, with a north exposure. If the copy is opaque, four Photo-Flood or Reflector-Flood bulb maintained at the corners

of a rectangle above the copy are desirable. Orient the camera with direct viewing back is nearly indispensable.

Slides should be mounted between taped glass or metal binders to protect them and to hold the film in a plane for projection. A standard mask or opening should be used for slides and for overhead transparencies.

18.2.5 Commercial Photography

Commercial photography can also be called as Money-making Photography. It is undeniable that many photographers find their hobby a fairly expensive one. If you develop the Money-making Photography more thoroughly, it may bring in a small but none the less welcome profit.

Once you master the technique of photography, you will be able to earn enough money to pay for your films and papers and perhaps even to cover the cost of extra apparatus. The price you receive for each picture may exceed Rs. 10, Rs. 80, Rs. 100 depending upon the size and nature of photographs. Competitious and amateur Press Photography is the most promissory means of earning money with a camera.

Photographic contests are common and enjoyable. Some journals run them regularly and this applies not to the journals devoted to photography, but also to a number of other publications. Even Government of India's Ministry of Information and Broadcasting holds such competition and ask for entries. Some manufacturers of photographic materials organize contests and further scope is offered by competitions run by large firms which deal in cameras and other apparatus.

You should also note whether the promoters require the copyright of the prize winning prints. If they do this means that picture becomes entirely their property. You will have to relinquish all title to it and you will be precluded from entering it elsewhere.

1. Press Photography

Half-guineas or larger sums can be picked up rather more easily from amateur Press Photography. The chief factor in making a success of this work is avoidance of clashing with professional photographer and photographic agencies. There are scores

of publications using non-newsy pictures and this market can be catered for by the amateur. The work, moreover can be undertaken leisurely at your own convenience. A number of periodicals run a regular 'Readers' letters', feature and some of the letters are illustrated by a good photograph. Magazines for cyclists, motorists, hikers and others have columns of this sort and a letter illustrated by a good photograph is usually more acceptable than one without a picture.

There is also a market for decorative photographs and good landscape pictures which can be used to enhance the appearance of the printed page. Such pictures are used as cover photographs by some magazines or as pictorial unusual fee for a cover picture.

You may submit photographs for use in this way sending six or dozen together with a cover letter stating that they are offered for periodical use. They will probably be filed for future publication as opportunity permits. But from time to time you will receive a welcome cheque as the pictures are published. When all but one or two of the batch have been used, you may send a fresh supply.

Another opening for profitable photography is provided by the hobby and household magazines. There are plenty of money making opportunities in the magazines devoted to other hobbies model-making, carpentry, natural history and soon. By selling a score of photographs each year you should be able to earn enough money to pay all your photographic expenses. A useful market guide is 'The Writers' and Artists' Year Book' which lists scores of little known publications. There is also a free lance markets list published each month. With 'The Writer' and through that journal is primarily for journalists, many of the markets have openings for photographs.

18.3 Glossary

Art Editor : Picture editor, responsible for acquiring photographs and in charge of photographers or design editor.

Art Paper : Coated glossy paper for photograph mountings and illustrations.

Free Lancer : Self employed writer, artist, editor or advertising man.

Glossy : A shiny-finished photograph usually preferred for making half-tone engravings, a magazine printed on glossy paper.

Rewrite : To write a story again, rather than simply edit the copy.

Telephoto : Photograph taken with telescopic lens and transmitted telegraphically.

Shooting a Page : The Photoset term in newspapers, when the bromides type are assembled in position on the page.

18.4 Summary

Photography is vividly used in the journalism. There is a special branch of Photojournalism like any other newspapers or periodicals there are editors, photographers work as reporters, printing of photographs with or without caption. There are different types of photos like black and white, color, wire photos, microscopic photos etc. There is press photography exclusively used by the print media particularly for speed magazines known as Photo Magazines. The role of photography is also vital in motion picture, television and videos. Most of such photographs denote the action and also imagination.

In the preparation of the scientific material and its presentation, use of photos, graphs illustrations made easy the scientific subjects, which are presented to the audience. The extensive use of the slide projectors, transparencies on overhead projectors and C.D. on computer are used by the scientists.

Photography as the business or the money making activity is now flourishing in the global spheres. The photographers can open the photography shops, showrooms for the business and also use the print media, television and videos for their business as the free lancers. With an equipment and working capital, a skilled artists can make the photography as a most profitable business.

Photography in film and television can not be described in isolation, but is correlated to relevant activities of the cinema or TV program, where special system in the form of studio, equipment and professionals are involved. So each media has its own system of use of photography as the professional activities for developmental purpose.

18.5 Exercise for Practice

Answer the following questions in 200 words each.

1. What is Photo Journalism ? Explain types of photographs used in farm journalism.
2. What is Press Photography ? Explain photo editing.
3. Write note on SITE project for developmental education.
4. Describe commercial photography with respect to Self Employment Generation.

Unit 19 : Information Technology

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19.1 Introduction

Information according to the Chamber Dictionary is ‘Intelligence given; knowledge: an accusation given to magistrate.’ Thus, information is mostly related to the facts, which are thoroughly examined by one’s intelligence and the mind. The meaning of ‘technology’ is, the practice, description or terminology of any or all of applied sciences of commercial values. It is an outcome of the invention or discovery in the form of an innovation or a practice or an idea based on science. Thus information technology is the intelligent to be given in the knowledge, in the form of applied science, which can be used for actual practice in one’s situation.

The duty of the reporter and the editor is to do, what every sovereign citizen is supposed to do, but has not the time or interest to do for himself- that is to gather information picks out, what is important, digest it thoroughly and relate it to the problems of a day. Every day thousands of scattered journalists, acting as the public’s proxies, observe countless happenings and report information about them via a

communications network that reaches into every community.

Thus, information collection and its management is the specialized job of the reporters, who are behind the organization of the mass communication media as the backbones. Managing need based mass communication is the aim of every journalist and the schools of journalisms.

After the study of this unit, you will be able to know and understand :

- λ The process of information collection through different sources.
- λ Management of information through system.
- λ Agriculture informatics for the planning and execution of developmental activities.
- λ Presentation techniques of the information and ,
- λ Establish the public relations for the organization as a special approach for its review and the progress and the future strategy.

19.2 Content

19.2.1 Information Collection

It is evident that the first and second steps in the planning process- developing external and internal planning constraints depending upon the availability and utilization of critical information. It is hard to imagine the manager trying to develop any of the three major types of plans without first gathering the necessary planning premises that permit adequate evaluation of alternative courses of action to achieve the plan.

The planning information needs an organization and can be described as follows :

1. Environmental Information

Environmental information can be political and Governmental considerations. Some information on political stability at whatever level of government is important for forecasting plans. Additionally, the nature and extent of government control and their effect on the organization must be taken into account. A third factor is the

important role played by government policies; they have a very significant effect on planning decisions.

2. Demographic and Social Trends

The products, services or output of firms and organization are affected by the totals, composition or location of the population. The social trends and consumers buying behavior are important. It is necessary therefore to forecast trends for both the short and long run in this critical area.

3. Economic Trends: It includes :

- (i) The GNP level and the trend and consumer disposable income, which are significant for almost all organizations;
- (ii) Employment, productivity, capital investment and numerous other economic indicators that provide valuable information and,
- (iii) Prices and wage levels, whose effects are vital to almost all organizations of products and services.

4. Technological Environment

Because of accelerating technical changes and their effect on new products and processes, it becomes necessary or desirable for many firms to forecast the technological changes in their industries and the probable effect on firm. Firms such as TRW, Inc. or WTO forecast key technological advances in all fields for a period of next 20 years.

5. Factors of Production

These include source, cost, location, availability, accessibility and productivity of the major production factors of labour, materials and capital.

Competitive Information : Information concerning factors that affect the operation of firm within an industry includes data concerning industry and firm demand as well as data on the competitors.

Internal Information : Because of internal premises affect the planning decision of so many levels in the organization, in some respects they are more important than the external information. Internal data are aimed at an identification of organizations strength and weaknesses- the external constraints that, when viewed in the perspective of external information are vital decision making premises that help managers shape future plans.

19.2.2 Information Management

After collection of the information, it is to be arranged properly for easy understanding.

1. What is Management Information System?

Judging from the business press, the brave new world of management information systems (MIS) is upon us. There is hardly a day without an article on information system, data bank, and related subjects. Despite this proliferation of books, articles, seminars and courses surrounding this area, few efforts have managed to synthesize the separate subject of management information and systems and to show how these are related to computers, this synthesis is major one. Let us define the concept.

2. A Management Information System (MIS)

MIS is not new; however it is appropriate to define clearly the term MIS. The MIS techniques existed to supply managers with information that would permit them to plan and control operations. The computer has added one or more dimensions such as speed, accuracy and increased volume of data that permits the consideration of more alternatives in a decision.

3. Management

It has been defined in a variety of ways but for our purpose it comprises the processes or activities that desirable what managers do in the operation of their origination; plan, organise, initiate and control operations. They plan by setting strategies and goals and selecting the best course of action to achieve the plan. They

organise the task necessary for the operational plan, set these tasks into homogeneous groups and assign authority delegation. They control the performance of the work by setting the performance standards and avoiding deviation from standards.

Because decision making is such a fundamental prerequisite to each of these foregoing processes, the job of an MIS becomes that of facilitating decisions necessary for planning, organizing and controlling the work and functions of the business.

4. Information

In the introduction, the concept of information has been described. However its practical forms and nature needs to be understood.

Data must be distinguished from the information and this distinction is clear and important for our purpose. Data are facts and figures that are not currently used in a decision making process and usually take the form of historical records that are recorded and filed without immediate intent to retrieve for decision making. Information consists of data that have been retrieved, processed or otherwise used for information of inference purposes, argument, or as a basis for forecasting or decision making.

The objective of the Management Information Systems is to provide information for decision making on planning, initiating, organizing and controlling the operations of the subsystems and to provide a synergistic organisation in the process.

In short, we are concerned with three systems:

- (i) That the social system called the organization,
- (ii) A system of management that is used in practice to improve the operations and productivity of the organization and its sub-systems and,
- (iii) The Management Information System, which provides the information for making decisions regarding the integration of the organization through the process of management.

5. The Information Explosion

The information explosion has profound impact upon the complexity of the management and organization. After all, the basic reason for information management

as a system- better decision. Various estimates have been made concerning the information explosion. It is said for example, that people's knowledge is doubling in each 5-10 year period and that the rate of knowledge information accumulation is accelerating. It is estimated that that 85-90 percent scientists of all time are now living an indication of the accelerated growth of knowledge and information in recent years. Here we are not interested in the precise degree to which information is expanding as in the knowledge, that information available to and required by today's manager is expanding enormously. To remain ahead of competitors and to keep pace with the technological revolution and its impact on the firm's products or services, the manager must keep abreast of selected information and organise it for decision making.

6. Information Feedback System

Essentially, feedback systems are concerned with the way information is used for the purpose of control and they apply not only to a business or management system, but to engineering, biological, agriculture and many other types of systems.

7. Decision- Making

The notion of programming decision rule is now a basic consideration of management and information system design. If the decision rule can be programmed for computer application, the potential exists for faster, more accurate and more economic operations.

19.2.3 Agri-Informatics

The collected information should be readily available to the users. The process of collection and presentation is given here.

1. Information

A means for sending facts to farmers. Telling people about agriculture from its beginning. Mostly, agricultural facts are told by the department of agriculture about the latest techniques of farming that are useful to farmers. Agricultural information

activities thus become a major means by which the District Agricultural Officers (S.A.O, S.D.A.O. and T.A.O.) attend to :

- (i) Making research findings known to farmers for their use.
- (ii) Programming for the improvement of agricultural resources and products effectively.
- (iii) Making information about the availability of products and their use to the consumers and ,
- (iv) Convening the problems of farmers to the higher authorities and research stations.

The department of agriculture has many partners in the information enterprise. Facts about farming reach farmers from many sources and many ways. No of institutions including the department of agriculture, collect and generate information about agriculture. Private industries in agricultural inputs do research leading to better production and use of the agricultural products. The information activities of the State Department of Agriculture should include the responsibility to help the District Agricultural Officers in passing the research results to the farmers in their districts. The department can prepare information materials and the District Agricultural Officer can adopt them to their local conditions and use with proper distribution. The farmers' organizations and the farmers, co-operatives are also the partners to the department helping in the information work.

2. The Agricultural Information Job

The assignment of Agricultural information work as a part and parcel of the main extension job, is more demanding and more difficult than other jobs. This is because more farmers to be informed and because more creative methods must be used to overcome the obstacles of illiteracy, lack of proper communication techniques, facilities and traditional view points of farmers.

The assignment is more difficult by the fact that many of us are having little time to devote for this work and the specialized work of information needs technical skills and aptitude towards this job. Make certain that essential information about the planning, development and implementation of the program reaches all farmers

repeatedly and regularly. As some districts are agriculturally more advanced than others, so there are different stages in information work in the districts. The main function of the information assignment are-

- (a) Planning the agricultural information programme for an year, we need to plan ahead for the demonstrations, issuing of publications, wall news papers, news bulletines,radio programmes,TV programs, press releases, exhibitions film shows etc.
- (b) Execute the plan of information work keeping in view the resources available and timeliness of the agricultural operations.
- (c) Establish and maintain contacts with key persons- with the colleagues at district level, like; District Public Relations Officer, Press Correspondents, Farm Radio Reporters, Cooperatives, related Government agencies etc.
- (d) Impress upon the extension staff that information work is a part of their work.
- (e) Explore the possibilities of getting additional funds for information work from Social Welfare fund, from Cooperative Institutions Marketing Federations etc.
- (f) See that the publications reach your farmers
- (g) Know the reaction of the farmers to the information work and modify accordingly.

3. Agricultural Information Centre

The Agricultural Information Centre is the set up at the district headquarters. The main areas of the centre are :

- (a) Samples of ear heads, grains, diseases affected plants and grains, insects or pests affected plants and grains etc.
- (b) Objects/Models of implements, sprayers, dusters farm tools and other equipment.
- (c) Samples of different fertilizers, pesticides fungicides and other agricultural Chemicals,
- (d) Illustrated Charts, pictorials, posters, Wall news papers etc.

- (e) Reading tables with information publications farm magazines and other readable material.
- (f) Photographs taken or obtained.
- (g) Any other material that is of interests to the farmers.

4. Sources of Agricultural Information

Information based on authorities and knowledge and research results can be accelerate in changing attitude and behavior of farmers and motivate them to adopt improved agricultural practices. We can depend upon, as a source of information on publications that are published by Central and State Governments and other Organizations. Motion pictures, films, exhibitions, newspapers releases, success stories of the farmers, mechanics, conferences, radio stations, Doordarshan centers etc. are good sources of information. Sometimes the private industries of agricultural inputs are also a good source of information.

In the year 2000, Agri-India Green Pages are published as the Exclusive English Directory on Indian Agriculture by M/S Agri Information Services Pvt Ltd., Pune, India which covers the information on agriculture and allied productions. In order to promote the crop commodities, Government of India under Ministry of Agriculture and Ministry of Commerce has instituted the Boards and Export promotion councils which compute the information along with different schemes and programs and incorporated, i.e. APEDA,MPED,Tea Board, Rubber Board, Spices Board, NHB, Coffee Board, Coconut Development Board. The other agricultural information relevant in nature is available in the Directory of Ministry of Agriculture- Programs and Schemes, Food Processors, National Bank For Agriculture and Rural Development (NABARD), Export Credit Guarantee Corporation, Exim Bank, Kishan Credit Cards-BOB Canara Bank, Maharashtra Bank etc. Indian Council of Agricultural Research (ICAR) and National Research Centers (NRC) bring out publication on mandates of achievements in their field of specialization. The Council of Scientific and Industrial Research (CSIR) at its regional Centers generate information for research, education and extension. A special chapter on Agricultural Statistics of India and her States has been the part of this publication. Agriculture is the very base

of our country's economy. This sector plays a crucial role in efforts aimed at overall socio-economic development of the country.

Several important statistics such as population of crops, use of fertilizers etc. in respect of various countries are also incorporated. The per acre yield of India vis a vis other countries will be the- eye opener for the industry, agricultural scientists, policy makers and also for research scholars.

In the publication of Green Pages, the empirical information in stastical forms is presented, such as, population and agricultural workers, All India area, Production and yield of food grains, All India normal area production and yield of major crops, Estimated production of vegetables, Oil seeds in India, Import and Export of Principle commodities, Land use categories, irrigated area, use of agricultural inputs such as fertilizers, Seeds, pesticides, seeds, planting material, India's Live Stock status, milk production, production of eggs, meat, wool, fish production, firewood production, outlay and expenditure in public and private sectors. All this information is the agricultural information for decision making and future plan of action at farms, village, taluka, district, state and national levels of the country.

Additionally, the information on agricultural equipment, and machineries. This Agricultural Information becomes the part of Agricultural Informatics. The agricultural information as the service is available both with the private and public sectors of the country as well as of the states.

For example, information on Centre for processed food provides information on :

- (i) Product and process development,
- (ii) Consultancy in food processing,
- (iii) Promotion, training and adoption of hazard analysis critical control point and food safety system in food processing industry,
- (iv) Creating database in food industry,
- (v) Dissemination of information by organizing seminars, workshops, and training,
- (vi) Undertake placement services/assist in recruitment of technical manpower,

(vii) Provide total solution by interacting with various organizations, industries, universities, research institutes and other institutes. Centre for processed food is a non profit, non-Government but professional organization.

Moreover, International organizations and companies measuring over 5000 are also available for providing information service to the concerns. Such as Embassy of Israel maintain computerized database of Israel companies dealing within all aspects of modern agriculture. Any query relating to companies for transfer of technology, joint venture, marketing collaborations would be replied immediately. Similarly German Agency for Technical Cooperation (GTz),

Indo-German Export promotion project, Nestle India Ltd, Polish commercial counselor's office, Sneha Prio Research and Development service. The Amalgamated Press are some of the agencies provide information on agriculture. Same is the case with agro-chemicals, Animal feed and cattle feed, Aqua-culture, Aromatic and Medicinal Plants, Association/Export-Boards/councils, Associations/societies and many work on providing the services with agricultural information.

In the field, agricultural information the services on computers are also available and also being developed. The Networking as the inter-connection of independent autonomous computers is available with the goals such as:

- (1) Resource sharing,
- (2) Providing high reliability,
- (3) Distributed work load,
- (4) Powerful communication medium,
- (5) Protecting and preserving the agricultural information.

Application of Networks for people is also available and discussed as under :

- (a) **Access to remote information:** Access to various institutions stated above has made it possible for people/farmers to do various activities, such as to read news papers magazines on line and get the latest information system on almost every agriculturally related subject.
- (b) **Person-to person:** This category of network use includes e-mail (Electronic mail), which is widely used by people/farmers to send text, audio and graphics. Real-time e-mail will allow users to communicate without delay. Virtual meetings

can also be held called as video conference to exchange the views/facts on agricultural information. The types of Networks are LAN-Local Area Networks and WAN-Wide Area Networks which can be available for agricultural information services.

19.2.4 Presentation Techniques

The questions arise of the writers as the resource persons that how to write? Similarly the question of speaker or the scientists arises how to present the information. Let us discuss the various techniques of presentation may be the subject matter information, a story or jokes, poems and other issues in the group discussions etc.

Let us begin with the traditional ways of presentation. For example, drama wherein different characters play their roles in the form of dialogues. They become one with their roles and present in the form of spoken words but with emotions and wearing, lack of appropriate clothes and other wears known as 'Sringar'. This presentation may also be in the poetic forms which are sung as a song i.e. 'Katyar Kaljat Ghusali' a drama where each of the character sings and express their emotions to the audience. In 'Pravachan' a technique of presentation of a 'Stanza' of book, for example 'Dnyaneshwari', a book written by saint Dynaneshwar from which the stanza known as 'OVI' is selected and is explained analytically by the presenter (Speaker) to the audience.

In 'Sankirtan' the speaker known as 'Kirtankaar' with his Bhajani mandal whose member use instruments like Mrudung, Tals etc., and they play these on directives of the Kirtankaar, who speaks by selecting the story known as Katha in two parts. In 'Loknatya' the characters play their role with action and lady character plays their roles with songs. These are some of the techniques of presentation in the traditional means of communication.

In the modern ways of presentation two major techniques are used namely; presentation of written matter with illustration and oral presentation. In general, how to present information is the question to be answered.

1. Knowledge is Powerful

It is said that 'Knowledge is power'. Indeed it is! In 21st Century, 'Knowledge' will not be only power, but it will be considered as 'Super Power'. It is most valuable which can make the money than any other industrialist or trader. The means of modern information systems are changing rapidly, Internet, fax, ISD, STD; have come in place of wireless, telegraphs, telex etc. The knowledge is thus, spreading rapidly. Now a days Information Technology (IT) is considered highly valuable. In the field of agriculture, we expect that our farm and laboratory research should spread and reach to user's end for their actions and feedback. This is obtained by various means like extension methods may be in the forms of spoken words, printing page, illustrations, electronic media like radio, video and TV.

In respect of written matter or printed page the question arises how to make literature 'readable'?

- (a) A good writer must be a best reader. He should understand that he is writing for readers may be for students or farmers. A healthy critic can avoid clumsy words, sentences while reading the literature. His language improves considerably.
- (b) Avoid unnecessary words, for example "*Moringa olifera*" is a scientific name given to drum stick! These words convey nothing to a laymen.
- (c) Start the write-up- 'With enthusiasm' in the words. Tell the temperature as 'very hot' 'hot' 'too hot'. Instead of 31.33 degree celsius describe the required nature of soil in the appropriate words in regional or local language.
- (e) Write in your own language. Information should be understandable manner.
- (f) After a good start, deal directly in the topic rather than describing unnecessary details.

There is 'SWOT' analysis principle in management studies that is applicable to writer also,

S=Strength, W=Weakness, O=Opportunities, T=Threats.

Every writer has to know his strength and weakness. He should look for opportunities while considering threats. All these factors can make a successful field literature writer.

2. Oral Scientific Presentation

We have already discussed the ways and techniques of oral presentation in the traditional forms. However the presentation of scientific information with oral presentation has some considerations as under:

The oral report itself can be presented by reading a specially prepared manuscript, by delivering a manuscript from memory or by speaking extemporaneously from notes or without notes. The use of manuscript is a must for people without experience. However, speaking from notes or extempore is much better. In fact, the genuine extemporeous speech is well organized and the speaker knows exactly what he plans to say. This is so because in extemporeous speaking, the speaker is actually thinking through the ideas together with the audience, by using words to direct their thinking. It is the opposite to a memorized speech.

For inexperienced and retired person, however, it may be less embarrassing both to him and to the audience to read from the prepared manuscript rather than fumbling or stammering and these failing to present the real content in a logical talk. The text should be written as if it were being spoken to a friend, specially using the first person and informal sentences. It might be well to carefully outline the talk item by item, in wide margins at the left hand side. After a little practice, the speaker will generally find that he no longer has to read the talk but can follow the outline and talk extemporaneously; at the same time, he has the reassurance of having the written text at hand, if it becomes necessary to use it. The clear outline helps him to find his place quickly.

We must know our audience, if we are to communicate effectively and we should choose our means of communication with the audience in mind. In many cases a combination of the methods of presentation is desirable. The information that is to be presented must meet the need of people, and problems of people if it is to be fully acceptable to them. Furthermore, there should be a logical presentation of ideas, so that the people can follow discussion properly.

It therefore, demands a careful preparation and hard work, to do a top quality job of presenting the information to people.

19.2.5 Public Relations

Public relations practice is followed through ages and its advantages are better understood. However, it is necessary to study it under changing situations.

1. What is Public Relations

Public Relations or PR as it has commonly known in its abbreviated form took a great deal of time to gain respectability. In its bare essence public relations is an attempt to inform, persuade or adjust to engineer. Public consent for activity, cause, movement or institution. The definition is provided by Edward Burneys. The aim is clear; this is to make whatever activity, it is what one wants to promote, quickly and painlessly which is acceptable to the general public. For any kind of public relations, there has, first of all, to be a public to cultivate relations with.

Public relations as a concept may be new, but it have always been practiced down the centuries. When Cleopatra welcomes Mark Antony in regular splendor on the banks of Nile, she was practicing a subtle kind of public relations. When Tata established the Tata Charitable Trust and publicized it, he was doing PR. When Mahatma Gandhi called on King George V at the latter's residence at Buckingham Palace, clad only in the peasant's *dhoti and shawl*, he was practicing public relations for India's poor in excelsis. Chamchas of politicians, the hangers on that crowd the out offices of ministers also do public relations, albeit a little unsavory, of sorts.

In the modern world public relations has become an essential function in all most all spheres of life, whether of education, business, trade, commerce, international relations, industry, administration and even day to day dealings. Every organization has a PR man.

If PR is a planned efforts to influence and maintain favorable opinion of; the public through acceptable performances honesty presented and with reliance on two-way communication how it is best conducted?

This, it might be said, depends, on what audience wants to persuade influence or convince.

2. The need for Public Relations

Time was when business and social relations were simple, straightforward and on a person to person basis. That was possible because business and society were much less complex in structure and character, and competitiveness was minimal. Following the Indian Revolution business and society underwent a total transformation. Business organizations mushroomed, competing one with another for attention and profit, and urban society became pluralistic, comprising as if men and women from different classes and castes and of varying educational, religious and social backgrounds. In such a complex situation, advertising and public relations become imperative, so that the public could be made aware of a company and its products, through the mass media. Governments were forced to enter the field of advertising and public relations in order to make known policies and plans and the ways in which they were being executed. A Directorate of Information and Broadcasting was established at New Delhi with the objective of giving publicity.

The need for Public Relations today is therefore inherent in the very nature of modern business and Government. The many 'Publics' with their conflicting interests need to be handled by professionals in the field of public Relations, not in a hit-and-miss manner by amateurs as was the case in days gone by. Public Relations is then concerned not only with combating criticism in the mass media, but also with creating goodwill, understanding and building up a favorable climate in which an organization can function.

The Public Relations Society of India (PRSI) was established at Mumbai in 1956 as the professional body of the public relations practitioners in the country. It promotes PR activities, Professional Standards and Ethics. The PRSI has more than 600 corporate members spreading all over the country.

19.3 Glossary

Information : It denotes intelligence given or knowledge which may be factual or based on faith or belief.

Technology : It is the form of applied science which can be used for actual practice in one's situation.

Planning : It is forecasting in the light of present and past information or knowledge.

Demography : It is the study of human population in terms of number, classifications, proportions etc.

Management : It is the process of various factors activities such as PODSCORB meaning thereby planning, organizing, directions, supervising, coordinating, reporting and budgeting.

Agricultural Information : A means for sending the agricultural facts to farmers.

Agricultural Information Centre : It is permanently established centre at district or state or university headquarters to provide the scientific knowledge through various means and aids such as agri-inputs, services etc.

Networking : Denotes inter connection of independent autonomous.

E-mail : Electronic mail widely used by people to send text, audio and graphics.

Public Relations : Is an attempt to inform, persuade or adjust to engineer public consent.

19.4 Summary

Information Technology in the sense of the knowledge providing intelligently to people is now advance through the various medias particularly the electronic in nature and printing page. In the present days the application of computers is making in providing the Information Technology know as IT. The process starts with collection of information in various ways and sources such as data bank and statistics. In the classified forms like environment, demographic and social trends economic trends, Technological advancement factory production.

Information management as the system has been developed for making decision for future planning. The information concerned to agriculture is known as agricultural informatics in which the information generated by research system is designated through various sources like printing page, development departments like agriculture, for planning, execution of agricultural plans for the use of extension workers, scientists and the farmers, there are various sources of information of public, private and cooperative sectors who provide the relevant information to the users of technology.

The use of computer application is the recent trend is being made to the people like STD, FAX, Internet, E-mail etc.

There are various techniques of presentation techniques for writing and oral presentation of subject matter and also the traditional ways and means like 'Pravachan', 'Katha', 'Kirtan', 'Drama', 'Loknatya' etc.

The scientific presentation in the report, thesis forms and oral presentation also include the specific techniques for perfect and useful communication for the understanding of users for their actions under their conditions.

The issue of Public Relations is discussed in this chapter for a successful and effective business where in the consumers and the people are influence for their action.

19.5 Exercises for Practice

Answer the following questions in 200 words each.

1. Define Information Technology (IT) and explain its importance in agriculture and rural development.
2. What is Management Information System (MIS) ? Describe its relevance in farm decision making.
3. What is agri-informatics ? Explain functions of agri-informatic centre at district level.
4. Define Public Relation (PR) and explain needs of public relation in promoting innovations in agriculture development.

Unit 20 : Public Communication

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20.5 Exercises for Practice

20.2 Introduction

Communication with people is necessary in any society and in any form of Government. It is much more so in a democracy, where Government depends on popular backing. People must be told about Government plans, programs, policies, activities, success, achievement etc. so as to involve them and get their willing participation. Also, communication from the people reaction of the people to the policies and programs must reach the policy makers and administrators to enable them to modify or change the program accordingly. Mass communication media in India have made significant strides since independence. They have played an important role in dissemination of information and ideas, and providing instruction and entertainment to our people in a purposeful and effective manner.

After the study of this unit, you will be able to know and understand :

- λ Models of Public Communication as the process.
- λ The exhibits and their arrangement and utility in exhibition.
- λ Importance of hoarding and their display.
- λ How the advertisement is effective to influence society.
- λ The evaluation as the process for improvement of the plans.

20.2 Contents

20.2.1 Models of Public Communication:

Rogers and shoemaker (1976) defined communication ‘as the process by which messages are transferred from source to receiver. Ban and Hawkins (1988) defined communication as the process of sending and receiving messages through channels which establish common meaning between a source and a receiver. Legans (1961) defined communication as the process by which two or more people exchange ideas, facts, feelings or impressions in ways that each gains a common understanding of the meaning, intent and use of messages. Communication then is a conscious attempt to share information, ideas, attitudes and like with others, communication is meant for bringing the desirable change in people of any society. Thus, the social change is brought by providing information, establishing command on workers in an organization, influence people, and develops the integrity of diverse society.

How the communication functions is explained with the help of some models advocated by the experts of communication as under:

According to Aristotle, communication has three ingredients- (1) Speaker- the person who speaks, (2) Speech- the speech that he produces and, (3) Audience- The person who listens. This is oral communication between two or more people who are coming together on the common object or purpose.

The Shanon-Weaver (1949) model is consistent with Aristotle’s proposition. According to them, the ingredient of communication is,

- (i) Source, (ii) Transmitter, (iii) Signal, (iv) Receiver and (v) Destination.

Compared with the Aristotelian model, the source is the speaker, the signal is the speech and the destination is the audience, plus two added ingredients, a transmitter which sends out the sources, message and a receiver which catches the message for the destination.

According to Berlo (1960) the model of communication consist of-

(i) Communication source, (ii) Encoder, (iii) Message, (iv) Channel, (v) Decoder and communication receiver.

Code is a system of signals for communication Encode means to put the message into code or cipher. Channel means the medium through which the signals move and decoder means which converts the message in code to ordinary language which may be understood by receiver.

He further elaborated that all human communication has some source, some person or group of persons with purpose. The purpose of the source has to be expressed in the form of messages. The communication encoder is responsible for taking the ideas of the same and putting them in a code, expressing the sources purpose in the form of message. A channel is a medium, a carrier of message, for communication to occur must be somebody at the other end, who can be called communication receiver, the target of communication.

According to Schram (1961) the communication process involves-

(i) Source, (ii) Encoder, (iii) Signal, (iv) Decoder, (v) Destination.

The approach appears to the mechanistic as the author deals with the process and effect of mass communication.

The communication model forwarded by Leagens (1963) has the following elements :

- (i) Communicator,
- (ii) Message,
- (iii) Channel,
- (iv) Treatment of message,
- (v) Audience and
- (vi) Audience response.

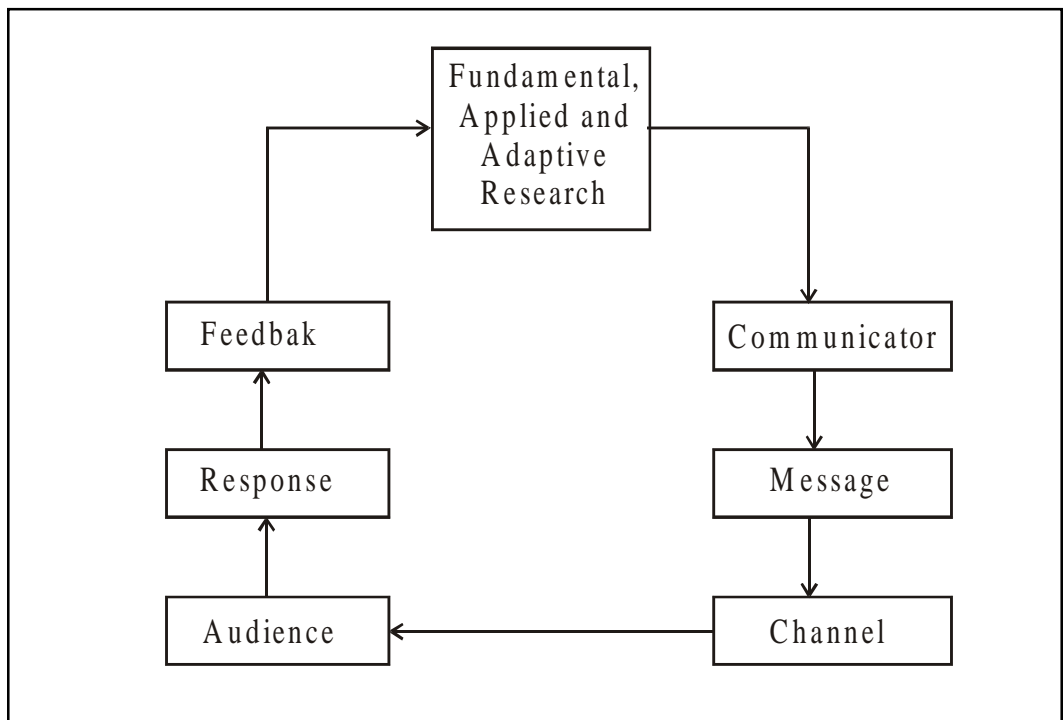
The task of communication, according to him is to provide powerful incentives for change. Success at this task requires thorough understanding of the six elements of communication, a skillful communicator sending useful message through a proper channel, effectively treated, to an appropriate audience that responds as desired.

Rogers and Shoemaker (1977) thought of the communication process in terms of S-M-C-R-E Model, the components of which are-

(i) Source, (ii) Message, (iii) Channel, (iv) Receiver, (v) Effects.

According to them a source (S) sends a message (M) via certain channel (C) to the receiving individual (R), which causes effect (E) i.e. changing the existing behavior of the receiver.

Communication may also be thought of as two-way ‘Stimulus-Response’ situation in which the necessary stimulus is provided by the communicator, the extension worker, in the form of the message which produces certain response by the audience reinforce learning. A diagrammatic representation of the extension system on the basis of the model suggested by Leagans (1963) is presented as under.



20.2.2 Exhibition and Exhibits

An exhibition is a systematic display of models, specimens, charts, posters information etc in a sequence around theme to create interest in the community. For example, Agri-Expo 2003 exhibition was held at Pune, where in the theme on advance technology of bio technological products such as, bio-fertilizers, bio-chemicals, green house technology, seeds and planting material like cutflowers and vegetables and related machineries and tools. This method is suitable for reaching all types of people. Exhibitions may be held at village, block, sub-division, district, state, national and international levels. Though an exhibition is organized around a major theme other related themes and some unrelated items like entertainment may also be included farmer's fair, Krishi Mela held by the agricultural universities, institutes and various other organization in which field visit and training programs etc. are combined with exhibitions are effective and popular. Exhibitions may also be organized by taking advantage of local fairs and festivals.

The purpose of an exhibition is to catch attention, convey an idea and stimulate action on the part of the viewers looking at the displays. The exhibitions need to be planned properly by following effective techniques.

(a) Planning and Preparation

- (1) Form a steering committee and suitable Sub-committees with the specialists, local leaders and administrators.
- (2) Decide on the theme and organization's to be involved.
- (3) Prepare a budget estimate and procure funds.
- (4) Decide on the venue, time and duration.
- (5) Prepare a written program and communicate to all concerned in time, keep. Some recreational programmes in the evening.
- (6) Get the site ready within the scheduled date. Make provision for essential facilities.
- (7) Earmark a stall for display of exhibits to be brought by the farmers.
- (8) Arrange a pendal for holding meetings, training and entertainment programmes.

- (9) Display posters at important places, Publicize about exhibition through mass media.
- (10) Decorate the stalls simple and tasteful. Make adequate arrangements for lighting. Use special effect light where necessary.
- (11) Prepare good quality and colorful exhibits, which shall convey the desired messages to the visitors. Use local materials as far as possible, Label the exhibits in local language with bold letters.
- (12) Display exhibits about 50 to 60 cm about the floor level of the stall, up to a height of about 2 meters. Maintain proper sequence. Avoid over crowding of exhibits.
- (13) If possible, arrange action and live exhibits.
- (14) Train up interpreters and allot specific duties. For a long duration exhibition, arrange rotation and replacement of personnel.

(b) Implementation

- (1) Organize formal opening of the exhibition by a local leader or a prominent person.
- (2) Arrange smooth flow of visitors.
- (3) Let the interpreters briefly explain the exhibits to the visitors so that the message is clearly communicated.
- (4) Distribute publications during visit.
- (5) Organize a panel of scientists to be presented nearby, so that the visitors who would like to discuss some problems could get the desired information.
- (6) Conduct meetings, training programmes etc as per schedule during the day time.
- (7) Arrange judging of exhibits brought by farmers and give away prizes and certificates.
- (8) Keep the exhibits and the premises clean. Replace exhibits as and when necessary.
- (9) If desired, judge the stalls on the basis of their quality of display.

- (10) Conclude the exhibition as, scheduled by thanking participants and those who have helped.

(c) Follow-up

- (1) Meet some of the visitors personally and maintain a visitor's book for comments during the exhibition to get feedback information.
- (2) Talk to local leaders and assess success of the exhibition.
- (3) Ensure availability of critical inputs and facilities emphasized during the exhibition.
- (4) Look for changes in practice in the community in the coming year.

(d) Limitations

- (1) Require lots of funds and preparation.
- (2) Cannot be held frequently.

20.2.3 Hoardings and Display

Controlled mass communication helps in reaching large number of farmers. This kind of work which every Superintending Agricultural Officer or Sub-divisional Agriculture Officer can carry out effectively to a large extent. The main advantage of this type of communication that the message presented can be localized, correct to the last specification, and applicable to the farmers of the district. A limiting factor in this approach is that it requires payment for production and placement or distribution preferably directly. Controlled mass media are in reach and can be effectively utilized by almost all people in any district. The details of sign board and hoardings are discussed as under:

Depending upon the funds and facilities available the sign boards and hoardings could be displayed. Inexpensive sign-boards and hoardings could be prepared by pasting old news papers on bamboo mats and painted or written with dark colored ink and thick brushes. These can be displayed at strategic points and at the market places for few days only. These will be very effective if timely information is given.

For example, the input and manufacturing agencies or companies of agriculture can invest their funds in preparation of the sign boards and hoardings giving significant information of their products. Such boards can be displayed at strategic points such as turnings of streets, National High ways, in the fields/farmers farms where demonstrations sites are selected or at the entry point of villages, towns and cities. Fertilizers Corporation of India has displayed their boards on road sides at each of the villages or cities located nearby, highways or express highways, even in the metropolitan cities such boards are erected for advertising the materials of national and multinational companies.

20.2.4 Social Advertisements

The Encyclopedia Britannica defines advertisement as ‘a form of paid announcement intended to promote the sale of a commodity or service, to advance an idea or to bring some other effect, desired by the advertiser.

The American Marketing Association has defined advertisement as any paid form of non-personal presentation and promotion of ideas, goods, and services by an identified sponsorer. In other words, advertisement is paid use of any channel of communication, radio, television, film, press etc. to identify, to explain or to urge the use or adoption of a product, service or idea.

1. The Role of Advertising

Advertising has developed in industrial countries as a major adjunct to industry and commerce. It is the life breath of modern society. Advertisement differs from publicity, because it is paid for directly and it’s sponsorship is almost cleanly identified. It is also not personal selling, because it is non-personal presentation. Again advertisement and sales promotion are not one and the same thing. Sales promotion in a wider sense includes advertisement, personal selling and other selling activities such as an exhibitions, displays, demonstrations etc., Advertisement is thus only one part of sales promotion activity.

2. Types of Advertisements

The advertisement can be classified in several broad categories. Product advertisement is intended to present and promote goods and services. Advertisement can also be divided into two parts; commercial and non-commercial. Commercial advertisement can stimulate two types of demand- primary and selective. Non commercial advertisement is undertaken by Government bodies, charitable institutions, and religious organizations or by political groups.

The advertising activity is generally carried out by the following three agencies:

- (i) Advertisers include departments of the Government, public sector undertakings, business houses, manufacturers, retailers etc.
- (ii) Advertising agencies prepare advertisements to the advertiers.
- (iii) The media that carry advertisements for press, radio, film, television etc.

3. Functions of Advertising Agency

The following are the functions of advertising agencies.

- (i) **Research:-** For purposeful advertisement campaign, it is necessary to gather information and facts in order to build up effective advertising strategy. This includes marketing research- information about consumer markets, products or services to be advertised.
- (ii) **Selection of media:-** The medias are selected like print, audio-visual medium or combination of more than one medium.
- (iii) **Preparing copy:-** It involves creation and execution of advertisements- preparing the copy, art work, print, radio or television productions pictorial work and layout etc.,

The advertisers and the advertising media generally depend on the advertising agencies associations for relevant information on advertising agencies. Some of these are :

1. Advertising Agency Association of India, (1945) Bombay.
2. National Council of Advertising Agencies (1967), New Delhi.
3. India Society of Advertisers (1952), Bombay.
4. Advertising Standards Council, Bombay.

Frederick Gamble, former president of the American Association of Advertising Agencies defined advertisement in the marketing of products as under:

“Advertising is the counterpart in distribution of the machine in production. By the use of machines, our production of goods and services multiplies the selling effort. Advertising is the great acceleration force in distribution. Reaching many people rapidly at low cost, advertising speeds up sales, turns prospects into customers in large numbers and at high speed. Hence, in a mass production and high consumption economy, advertising has the greatest responsibility for finding customers.”

20.2.5 Evaluation

Evaluation is the process of determining the extent to which objects have been attained. The communication of the high value technological program, if it is to be planned, how for the program accomplishments are the changes among people and the changes in their situations resulting from the program. Information which reveals the extent to which objectives are reached is needed to be evaluated by accomplishments. For example, dissemination of agricultural technology among the farmers as the program intended to adoption of it as the objective, then how much of this objective has been attained can be evaluated with the help of questionnaire or schedule which is used to interview the farmers.

This process is called as the evaluation of accomplishments regarding the dissemination of information and it's adoption by the farmers under their conditions and situations. This is kind of feedback one can get in the empirical form which helps in the improvement of the program having relevant objectives in the modified form. It is one of the processes in the program planning and acting upon the program. The amount of accomplishment judged to be satisfactory can be determined in the light of potential improvement in the area, the complexity of the problem, objectives and the resources available.

1. Importance

Evaluation is an essential step in the extension educational process.

It is through this process of evaluation that one arrives at judgments or conclusions that will aid in decision making. To clarify this, it will be useful to define several terms. A decision is a choice among alternatives. Judgment is an assignment of values to the alternatives. The evaluation from this point of view provides regarding continuation, redirection, and reemphasize of the present program or decisions as to the need for new programmes. Thus, evaluation is an important and integral part of all teaching and program planning work.

- (a) Without appraisal of results there is no sound basis for improving the work.
- (b) It helps in identifying needs for concentrated efforts.
- (c) It has a value in creating public confidence by presenting rational facts.
- (d) It gives assurance and confidence to the persons concerned.
- (e) It helps in judging the value of methods or devices used,
- (f) It helps the teaching by compelling the teachers to define the objectives clearly.
- (g) It will help in choosing the best tools in teaching plan.

Thus, evaluation improves the professional attitudes of those who use scientific techniques. In the process of evaluation number of questions may be answered such as one can ask, “How good is the planning organization?” Do the objectives correspond to the need of clients? How well are the plans followed? And what has been accomplished? The foregoing questions can be more precise. The effectiveness of evaluation in each case will depend on the pertinent questions asked and the nature of the response.

2. Who should do Evaluation?

The question raised is that who should do evaluation and when it should be done? What information will be required? And how does one go about collecting this information? The following are a few suggestions in answer to these questions.

In most of the cases are agency undertakes its own evaluation. This an self evaluation is useful from time to time, to supplement the evaluation made by competent person or groups outside the agency for overcoming biases and for introducing new ideas. Self evaluation may be done through a committee or some individual assigned

to do this job. It can be done by those who are directly responsible for the phase concerned. In such cases provision should be for coordination to ensure that evaluations are in line with the overall purposes of the agency. In some instances, it may be necessary to use broad survey techniques for collecting the desired information in evaluating the results of a program. This information may be collected at three points of attainment.

- (i) *Bench mark stage* : It is initial stage when program is to be introduced. This is the point from which the people starting their change of behavior.
- (ii) *Interim stage* : This is any stage in the progress of people towards the objective.
- (iii) *Final stage* : After completion of the program evaluation would be undertaken to measure the attainment of the final objective. One has to find out how far, some or all the people have reached the objective. It helps in deciding the effectiveness of the teaching methods.

The survey can be done by personal interview or by mail questionnaire to the people concerned. It is more feasible to interview or to get questionnaires filled in of a few people, who are representative of groups as a whole.

There are number of scientific methods in evaluation of the program, activities, performance, progress of the plans executed. In addition to survey method the other methods like case study. Case history before and after evaluation techniques can be made use of in evaluating the program. Evaluation study may be of census or on sampling basis for which the different sampling techniques are used.

After evaluation one has to draw the inference with the recommendations which in turn can be acted upon by the plan executives. For better results and the program for peoples social change as well as economic and cultural changes in the specific area and the specific community.

20.3 Glossary

Agricultural Informatics : It is the centre providing information and services in the forms of facts, or statistics through internet networking.

Model : It is the communication process presented in the forms of elements.

Communication : It means common sharing of information between two or more persons about ideas, practices transmitted for interaction, decision making and action.

Stimulus-Response : It is a two way process of the situation in which the stimulus is provided in the form of message which is responded. It is interaction between two individuals of whose one acts as the communicator and another responds to the message of communicator.

Exhibits : These may be specimen, models, charts, graphs which are used for display in the stall of exhibition.

Hoardings : These are sign boards of the localize nature displayed at strategic points.

Advertisements : A form of paid announcement intended to promote the sale of commodity or service.

Evaluation : It is a process of determining the extent to which objectives are attained.

Benchmark Survey : It is study made of the area before any development occurs, to find out the status of people in development.

20.4 Summary

Communication is necessary for establishing the common understanding between or among the people. There are various communication models, some of which are based on elements sequence in the process and some of them are of mechanical types such as telecommunication. In the field of an organization many events are occurred and these are encompassed in the process of communication, where various elements are involved with their uses or roles and presented diagrammatically.

The exhibitions and the exhibits are explained in respect of their types and the preparation and what should be done with before, during and after exhibitions and the utility of exhibition for creating among the people. This is kind of mass communication approach to the people or public.

The role of advertisement pertains to promotion of sale of products or services which is used by the business properly and industrialists or the dealer of the companies. It is non-personal in nature but have gained importance in the modern society.

Evaluation as the process which determines the extent to which the objective of any program is attained and provides the scope for improvement, modification or alternation in the program or decision making along the programmes to be planned and executed. It is a kind of device/technique issue by the organization internally as well as externally for effectiveness of the program activities.

20.5 Exercise for Practice

Answer the following questions in 200 words each.

1. Define the term Communication and explain the models of public communication.
2. What is Exhibition ? Describe various steps to be followed in effective exhibition.
3. What is social advertisement ? Explain functions of advertising agencies.
4. What is evaluation ? Explain stages of evaluation.

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