



EXTENSION MANUAL

STAGE II

EXTENSION AND COMMUNICATION SKILLS

WORKSHOP FOR

FISHERIES EXTENSION OFFICERS

FROM THE

SOUTH PACIFIC

Workshop Manual prepared by participants in the Stage I Extension and Communication Skills Workshop held at Suva, Fiji from 11 April to 6 May 1988.

CONTENTS

Page No.

Foreword	
Acknowledgements	
The Roles of Fisheries Extension Officers	1
Extension Models and Their Application	8
Adult Education	20
Teaching Skills to Individuals	24
Two Way Communication	28
Ways of Handling Difficult Situations	36
Public Speaking - Talking to Groups	40
Working with Groups of People	44
How to Have Your Ideas Accepted	54
Mass Communication and Extension	60
Visual Aids for Effective Communication	67
Extension Programme Planning	72
Problem Solving	82
Data Collection - Surveys	91

FOREWORD

Recognising that technical skills alone are not sufficient to make a good Extension Officer, the fisheries departments of South Pacific Commission member countries recommended at the 17th Regional Technical Meeting on Fisheries, 1986 that the Regional Fisheries Training Programme of SPC, develop and run a programme of training which would prepare selected officers to not only become better at the skills of communication and extension but which would also assist them to pass on and teach these skills to officers in their own countries.

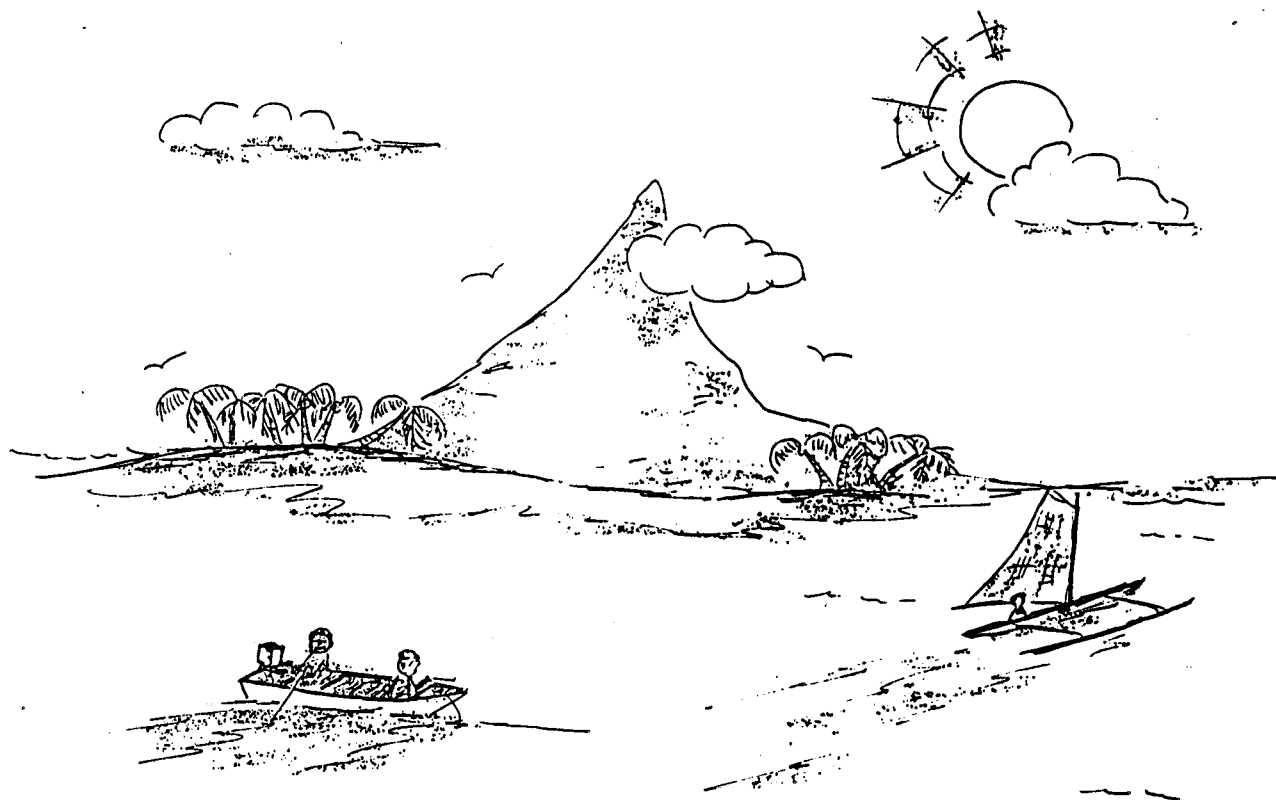
In developing the course structure it was found that although there was a lot of reference literature available in the area of extension, usually with an agricultural background, there was no reference manual specifically written for the Pacific Island Fisheries Extension Officer. It was decided, in conjunction with the operation of the initial stage of the training programme, which was run in Suva from 11th April to 6th May 1988, to develop a manual for this purpose.

This manual, Extension and Communication Skills for Pacific Island Fisheries Officers, was written by participants of the Stage 1 course. The ideas, knowledge and insights, used in writing this manual have been developed from material supplied by the Department of Primary Industries, Queensland, Australia, also from the participants own personal knowledge and experience of extension and from the course itself.

ACKNOWLEDGEMENTS

The persons responsible for writing or assisting with this manual are:-

M. Andrew Nelson	Federated States of Micronesia
Asher Elseradser Edwards	Federated States of Micronesia
Rocky Rolter Skijama	Solomon Islands
Elijah P. Mouku	Solomon Islands
Satalaka Petaia	Tuvalu
Takaeang Reiti	Kiribati
Melchior Ware	Papua New Guinea
David C. Cook	Papua New Guinea
Ovia Uhadi Tarube	Papua New Guinea
Terakan Tatavua	Cook Islands
Simon Malivea Meava	Vanuatu
Masing Bulekon	Vanuatu
Sunia Waqainabete	Fiji
Chain Singh	Fiji
Thomasi Lakeba	Fiji
Vina Ram	Institute of Marine Resources
Lei Veavea	American Samoa
Pierre Moana Chanfour	French Polynesia
Ronald V. Alfred	Marshall Islands
Richard Fell	DPI, Queensland
Jim Hirsch	DPI, Queensland
Barry Pollock	DPI, Queensland
Alastair Robertson	South Pacific Commission
Keith Meecham	FAO/UNDP



THE ROLES OF FISHERIES EXTENSION OFFICERS

Fisheries Extension services within the various countries of the Pacific are largely related to the aims of Governments to develop natural resources and increase food supply and production.

In many Pacific Island nations, the most common resources are marine resources, such as fish, clams, beche-de-mer, sea-weed, and others.

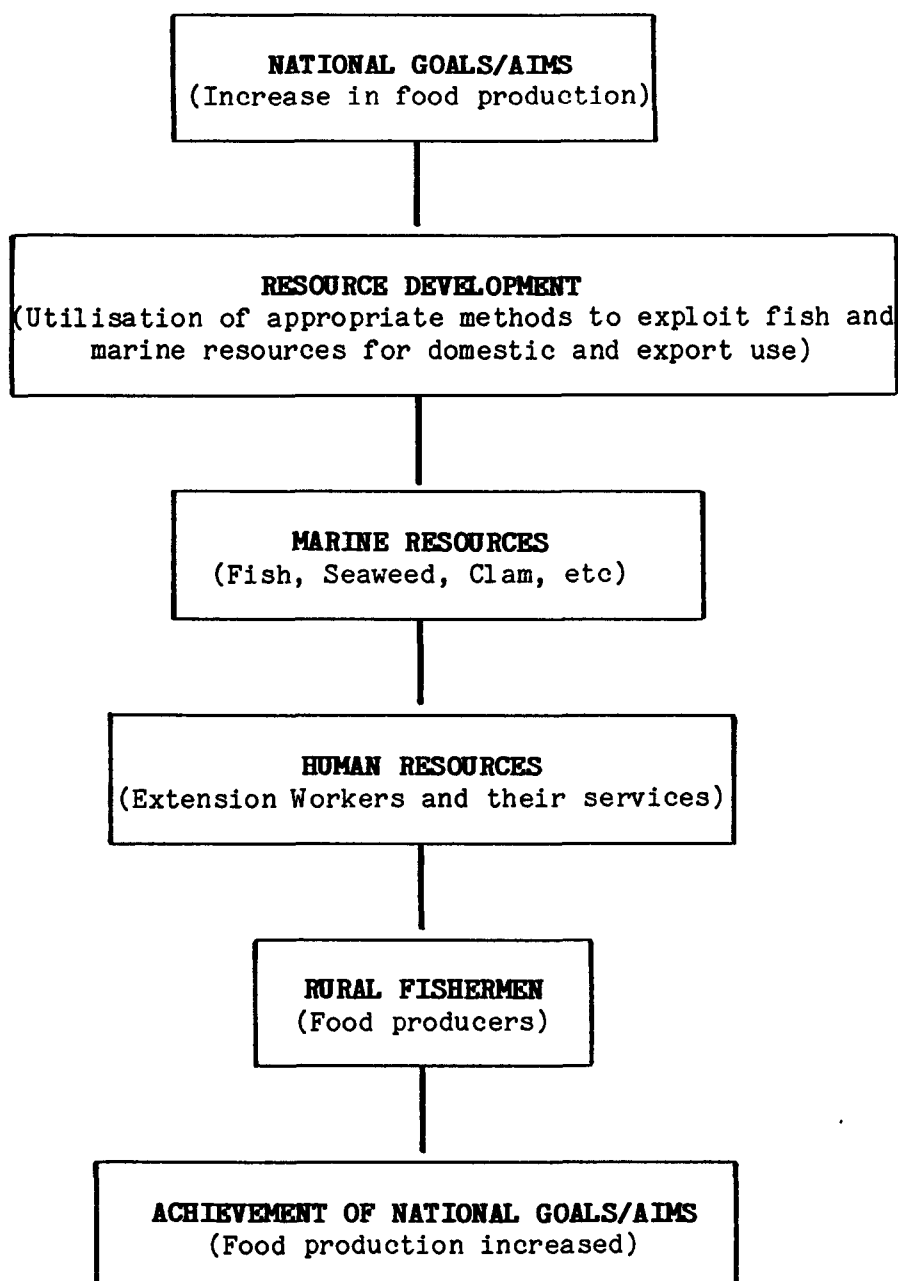
Most food supplies in the region come from rural communities where fishermen live. Therefore the increase in food production and supply to meet the rising demand will only occur with appropriate changes in the behaviour of fishing communities. Changes in attitude, knowledge and skills are necessary for the rural people to accept and adopt more efficient and effective methods of producing food to increase food production.

The many island states, villages, communities and tribes of the Pacific have their own culture. The societies are diverse and complex but there are similarities between Islands. Our fore-fathers have structured things to achieve peace in society and through peace individual and group needs can be satisfied. In every culture the needs change with time but some of the lasting beliefs and culture may have social benefits in a community. These are:

- a. Customary ownership rights to a coastal fishing area;
- b. Customary wealth of having a fishing boat/canoe/craft;
- c. Prohibition of certain fishing techniques and closed fish areas.

The changes which are necessary to affect food production will also affect rural development and the lifestyle of the people. These changes are directly influenced by the complexity of the society, as well as political, economic and technological factors.

In order to achieve aims and goals, it is important to understand the cultures, needs and problems of our rural communities. Changes in these communities can be achieved or accomplished through education through extension services (with the support of national government, institutions, and agencies).

Figure 1**Concepts of Fisheries Extension from a Development Perspective**

To achieve an increase in food production by an increase in the use of marine resources the attitudes and values of rural fishermen have to be changed.

These changes are going to have implications on the traditional lifestyles which may not always be acceptable to the whole of the village community.

The benefits of changes have therefore to clearly outweigh any problems within the rural community before new ideas will be accepted.

WHAT IS EXTENSION?

Extension is a commonly used term in countries of the Pacific region. Most island nations have national and provincial agencies with extension in their titles and carry out what are called "Extension Activities". However, the definition of extension is often poorly understood even by those who are actually involved in it.

Extension can be defined as "a means of spreading and enlarging useful knowledge and skills to people" in a context of achieving national goals within a local situation.

An extension service plays a vital role as:

- an informal method of education
- an agent for change
- an agent for improvement in fishing techniques
- a contributor towards raising living standards.

One unifying factor in all extension work is that extension workers are "working with people" - they are "people persons".

The Purpose of Fisheries Extension Services

The broad purpose of Fisheries Extension Services can be stated as a need to increase food production by improving the utilisation of marine resources.

This purpose is modified by considerations of:

- i) the society in a broad sense and the culture of local communities;
- ii) the needs and problems of fishermen;
- iii) the particular technology/subject under discussion;
- iv) the society and culture of local communities.

In the Pacific most activities and tasks are achieved through group and community participation.

In this respect it is essential that extension workers understand individual fishermen's relationships with other fishermen, as well as the relationship of the group of fishermen within the local community and with others outside the local community or group.

Two forms of social interaction can lead to goals being achieved. One as "competition" the second "co-operation". Where fishermen are competing there may be an increased catch of fish - indirectly meeting the goal of improved utilisation of marine resources, however it may also lead to disunity and disruption in the local community.

Co-operation on the other hand encourages people to combine their efforts to meet their own goals and objectives in a harmonious way.

Therefore the goal of extension services in the Pacific Region is to encourage the spirit of co-operation amongst fishermen.

ii) Needs and problems of fishermen

Rural fishermen in most of the underdeveloped countries, including the Pacific, generally have a low level of income. They face various problems such as inadequate diet, low level of production, poor sanitation, and consequently are slow to adopt new technology.

Before setting objectives and goals for a national extension programme in the use of marine resources, Extension Officers and other Government agencies must make a constructive effort to identify fishermen's problems and needs.

This deeper understanding will lead to achievable goals being set on a national basis.

iii) The technology/subject under discussion

Fishermen know most about fishing and fishing techniques and are closely involved with both subjects. Therefore any extension material must closely relate to fishing and the fishermen's requirements. When setting goals with fishermen, whatever the long term purpose of the extension programme, they must reflect the background and experience of the fishermen themselves. The goals set must also be relevant and seen as relevant to the fishermen.

The extension worker also must work at village level. To effect real change the fishery extension officer requires an understanding of the fishermen in rural areas. Past experiences have shown that fishermen do not change quickly if the extension programme is introduced from outside. With a good knowledge of fishermen at the village level, more can be achieved.

By becoming aware of their problems, gaining their confidence and making friends with them, the extension worker will become a respected member of the local community.

To gain the fishermen's confidence the extension worker must:

- (a) ensure that the advice and recommendations given are accurate and relevant;
- (b) provide information which will assist them achieve the goals;
- (c) be involved in their activities;
- (d) admit when you do not know or when you are wrong and make an effort to find out the correct facts.

Extension workers find themselves in many roles in trying to meet their client's goals and fulfill their own objectives. Four of these roles are:

- educational role
- problem solving role
- communication role
- planning and evaluating role

Educational Role

Most of the extension officer's time is spent in helping the fishermen to develop new skills and in changing attitudes to new ideas.

This involves the extension officers in many activities. Their educational role is to assist and motivate the fishermen to make his own decisions. Therefore extension workers must make themselves resource people and not solely teachers. They must understand the fishermen's view of his own situation and problems and help the fishermen achieve their goals through self reliance.

In the educational role extension workers provide up to date information and skills in a variety of ways to enable fishermen to understand and use them.

Problem Solving Role

Extension workers should spend time finding out the problems of clients and trying to solve them with the client. The extension officer may not be able to suggest an immediate solution to the problem, he may need to consult with specialists and then discuss alternative solutions with the client.

In the problem solving role, the extension officer should help the fishermen to:

- (a) identify the factors causing the problems;
- (b) identify solutions applicable to the situation and the fishermen;
- (c) evaluate this solution from time to time to see if it continues to give satisfactory results.

Communication Role

An extension officer provides a link between the fishermen and government agencies by providing a channel for communicating between both parties. Thus he is involved in a two-way flow communication.

Everything that the extension officer does from speaking, writing, demonstrating techniques, supervising, field days and organising other extension activities involves communication.

Some of the points which may assist the extension worker in this role are:

- (a) talk to as many people as possible;
- (b) be a good listener as well as a talker;
- (c) talk with fishermen themselves - not at him, above him, or down to him;
- (d) know your audience and know its needs;
- (e) know what to say, and say it simply;
- (f) be sensitive to feed back, and be ready to act on it.

Planning and Evaluating Role

An effective extension worker plans extension programmes properly. The extension worker considers the national needs and the local needs of the people. The extension worker needs to plan his activities by:

- (a) finding out what the problems are;
- (b) establishing priorities;
- (c) drawing up a plan for action - organising the work;
- (d) making provision for unexpected difficulties or delays;
- (e) evaluating and reviewing the activity or programme

CONCLUSION

This chapter has considered the spreading and enlarging of useful knowledge and skills to people. To achieve this aim extension workers need to be aware of the social environment in which they are working and to adopt a suitable role to meet the changing situation. In essence their work is at village level and their ultimate goal is to achieve national goals by having people help themselves.



EXTENSION MODELS AND THEIR APPLICATION

Over the years extension researchers and practising extension officers have developed several models to explain the way in which information flows from research through extension to the end user (fishermen). Extension work seeks to bring about change. These models are useful to help understand and modify extension approaches which will result in change.

As researchers become aware of the complexities of the overall extension process, the models which were developed also become more complex.

A knowledge of the various models will help extension workers select extension methods to suit the situation and people with whom they are working.

Five models are briefly described and their use is assessed.

SIMPLE COMMUNICATION MODEL

This model illustrates knowledge and ideas passing from researchers direct to fishermen. The researcher has information or an idea he wants to pass onto the fisherman. He puts this information into a form which the fisherman can readily understand eg. speech (codes). He talks to the fisherman and the fisherman listens and thinks about what is being said - he understands the message (de-codes). So the idea is passed from researcher to fisherman.

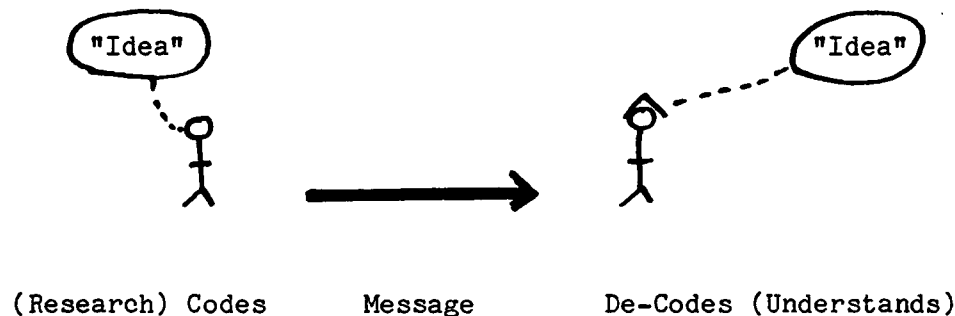


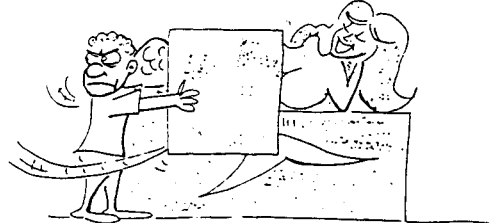
Figure 2 - Communication Model (after Berlo 1960)

Some aspects of the model worth noting:

- i) it is one-way communication - classroom with lecturer or teacher talking to students.
- ii) the model assumes that the idea if delivered by the right means, the right way and at the right time will be accepted by the fishermen. The fishermen will be motivated to learn.
- iii) it assumes that fishermen can be reached effectively and influenced by mass communication techniques e.g. radio, television, newspaper to change their behaviour.

- iv) the model supposes that ideas and techniques are derived after extensive periods of research by scientists and then the technique is developed in a suitable way that can be communicated to the masses of the fishermen and used by them.
- v) this model involves high initial cost in research and development and needs considerable planning prior to the dissemination of knowledge. However, it assumes that in the long run through the adoption of the new idea or technique, the gain would be higher than costs.

The major criticism of this model is that it is too simple and is orientated more to the researcher than the end user. The model is based on a mechanical model - for example - the telephone.



Telephone messages can be difficult to understand because there is crackling on the line ('noise'). Between two people messages can be made more difficult to understand when the researcher talks in terms the fisherman does not use ('noise').

The fisherman may choose not to understand because he does not like the researcher or does not want to change (this can be called 'noise' as it affects effective communication).

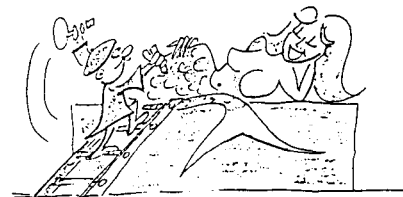


The model is used under a variety of circumstances in the Pacific. Radio advisory programmes are an example. Care must be taken by the extension officer to make the messages simple and easy to understand.

With the addition of a feedback loop i.e. the fisherman talks back to the researcher in a face-to-face situation this model describes quite accurately two-way communication. The simpler an idea the more likely that it can be transmitted in the way described by this model.

DIFFUSION MODEL

The obvious drawbacks of the previous simple model of communication led extension researchers to devise a model for the spread of a idea through a community.



Since all ideas could not be conveyed by research workers through mass means or by individual contact - it was thought that a diffusion process assisted with the spread of information.

This model assumes that new ideas (innovations) and research information will pass through those fishermen who have more knowledge and contact outside the village to those others who have limited contact and/or knowledge. The ideas come from research, to the extension officer to fishermen.

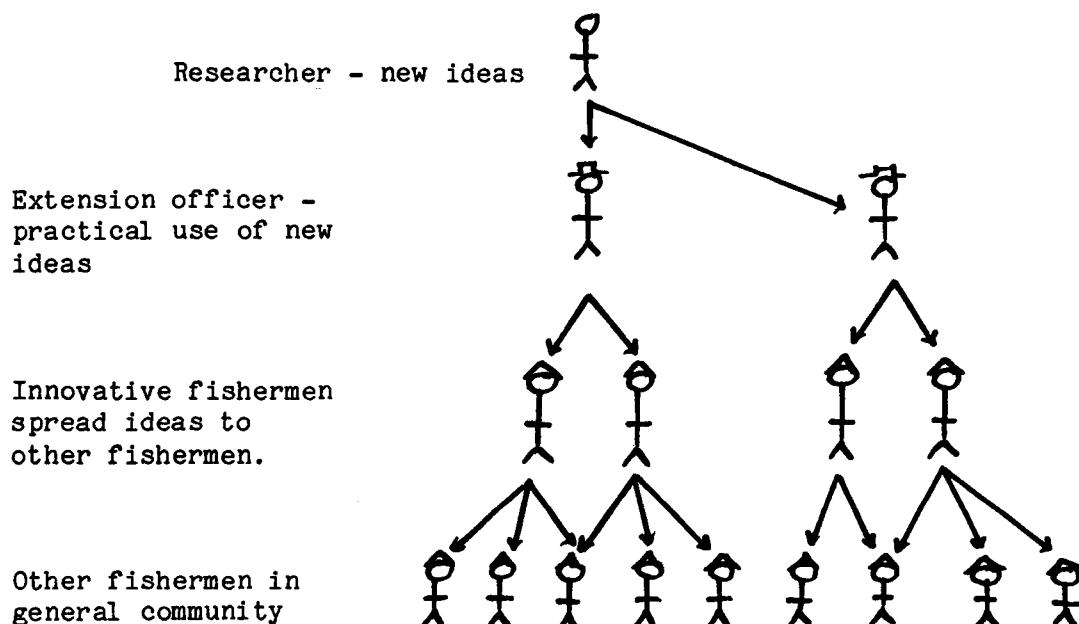
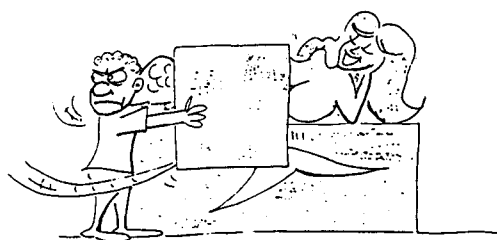


Figure 3 - Diffusion process

The diffusion process is sometimes called the "trickle down" approach to extension.

Some aspects of the model worth noting:

- i) the role of the extension worker is to pass good information from the researcher to the fishermen.
- ii) the rest of the fishermen will follow the idea once they see the innovative fishermen using the new idea.
- iii) the model assumes that innovators have influence in the general community and would be leaders of a group, chief of a village, village spokesman or rich and respected.

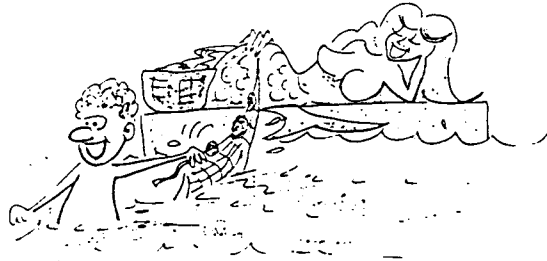


However, there is increasing evidence that the gap between innovators and the rest of the community may in fact widen the more they are used as the first people to try out new ideas. So that there is no guarantee that the ideas will trickle down to other fishermen.

Extension researchers have found that different fishermen view new ideas from different perspectives. Fishermen will adopt new ideas in an order related to the stage of development of themselves as fishermen.

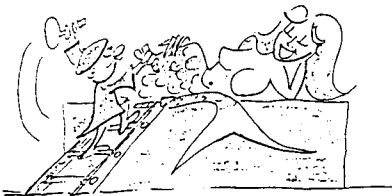
The final criticism is that it is not possible to assume that clear messages will be transmitted by the diffusion process - more likely they will become modified, distorted or confused.

The model can help when deciding how to introduce a new technology or technique. Innovative fishermen do exist and are often willing to try out new ideas.



They are more able to understand and accept new concepts. The most effective extension method may therefore be to visit innovative fishermen, help them set up to use the new idea, then let them spread the idea. They could be used in group discussion, meetings and be highlighted in appropriate (available) mass media. The rest of the fishermen may then follow after having seen the benefits of the new idea being practised by the innovators.

THE ADOPTION PROCESS



The Adoption Process was a further development aimed at explaining some of the problems of the Diffusion model. The model focusses firstly on the fisherman as an individual not as a member of a community.

The Adoption Process illustrates the thought process through which an individual passes from first knowledge of an innovation to the decision to adopt (or even reject) the new idea.

Individuals have been categorised by their rate of adoption of new ideas into one of five categories and the rate of adoption of a new idea is illustrated in Figure 4.

The Adoption Process is a five (5) stage process which illustrates how a new idea is adopted by an individual.

The five stages are:-

Awareness stage. The fisherman learns of the existence of the new idea but lacks information about it.

Interest stage. The fisherman develops an interest in the idea and seeks out information about it.

Evaluation stage. The fisherman thinks about the idea, and evaluates it for his present and future use - he decides to try it out (or not to try it out).

Trial stage. The fisherman actually tries out the new idea, usually on a small scale, to check its use in his own situation.

Adoption stage. The fisherman uses the new idea on a commercial scale.

Individual Adopter Categories

While Figure 4 shows five categories of adopters in general the early and late majority can be treated as one when looking at the characteristics of individuals in the categories.

Innovators - progressive fishermen who are willing to take risks. They are usually better educated, have high social status and have travel experience. They are likely to be leaders in country-wide or state-wide organisations. Actively seek information from researchers and other innovators.

Early adopters - often progressive with above average education and are recognised as leaders in the community. They are respected with high social status and are looked upon as being "good fishermen". Seek out information from many sources.

Early and late majority - have average to less than average education and social status. They do not often travel outside their local community. Usually conservative and tending towards traditional who rely on family and friends for their information.

Late adopters - tradition-bound fishermen with lower social status in the community. They fear debt and change and rely mainly on family and friends for information.

Rate of Adoption of New Ideas

The rate of adoption of new ideas in a community is illustrated in Figure 4, and is dependent upon the adopter categories above.

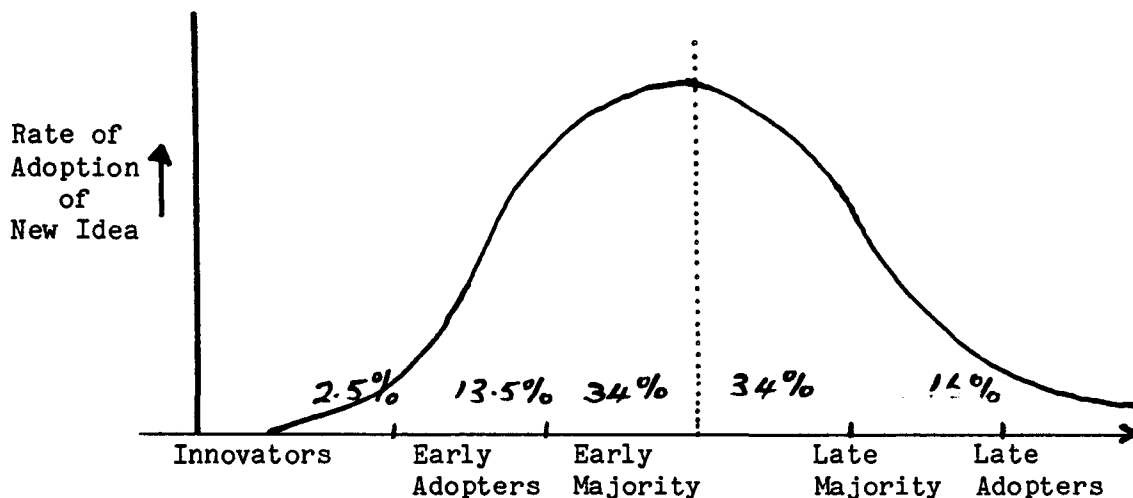
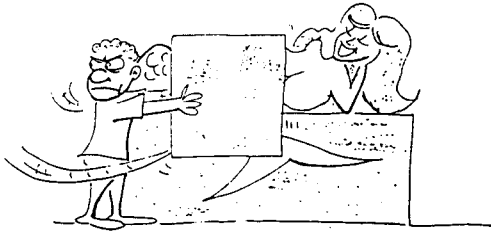


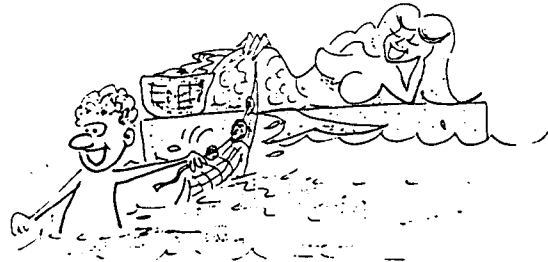
Figure 4 - Rate of adoption of new ideas



The main criticism of the adoption process is that it assumes that the process always ends with the adoption of a new idea. However, rejection can occur at three (3) stages - evaluation, trial and even after the idea has been practised for a while.

The adoption process also assumes that all five (5) stages always occur whereas in effect some may be missed out altogether e.g. trial. Also evaluation may be a continuous part occurring at all five (5) stages. The adoption of an idea need not be the end of the process, more information can be sought to reinforce or confirm the decision to adopt. It can also lead to reappraisal and a decision not to continue.

Most extension workers have an idea into which category each of their clients fits. Varying extension methods are used to match the adopter categories.



More importantly the strategic use of extension methods to match the five stages in the adoption process should be considered.

Innovators use mass media in all its forms at the awareness and interest stage and then use individual visits to other fishermen or group discussions and meetings through the next three (3) stages to adoption.

All groups can be made aware of new ideas and have their interest stimulated through mass communication methods. However, group discussion as the means of gaining more information and peer group pressure will lead to adoption by the majority and late adopters.

SOCIAL INTERACTION MODEL



The social interaction model looks at the way ideas flow through a community (or a social system). The effects of the pattern of flow and of the social structure, relationships and groups on the fate of a new idea are considered in this model.

The model emphasises the importance of -

- (i) the relationships of people in the community
- (ii) the user's position in the community
- (iii) the informal personal relationship and contacts
- (iv) group identification and group loyalties
- (v) considering the community as a whole - as an adopting unit.

Figure 5 illustrates that individuals are part of both formal groups and informal groups and that information on new ideas can flow throughout the community by being transmitted along formal and informal pathways.

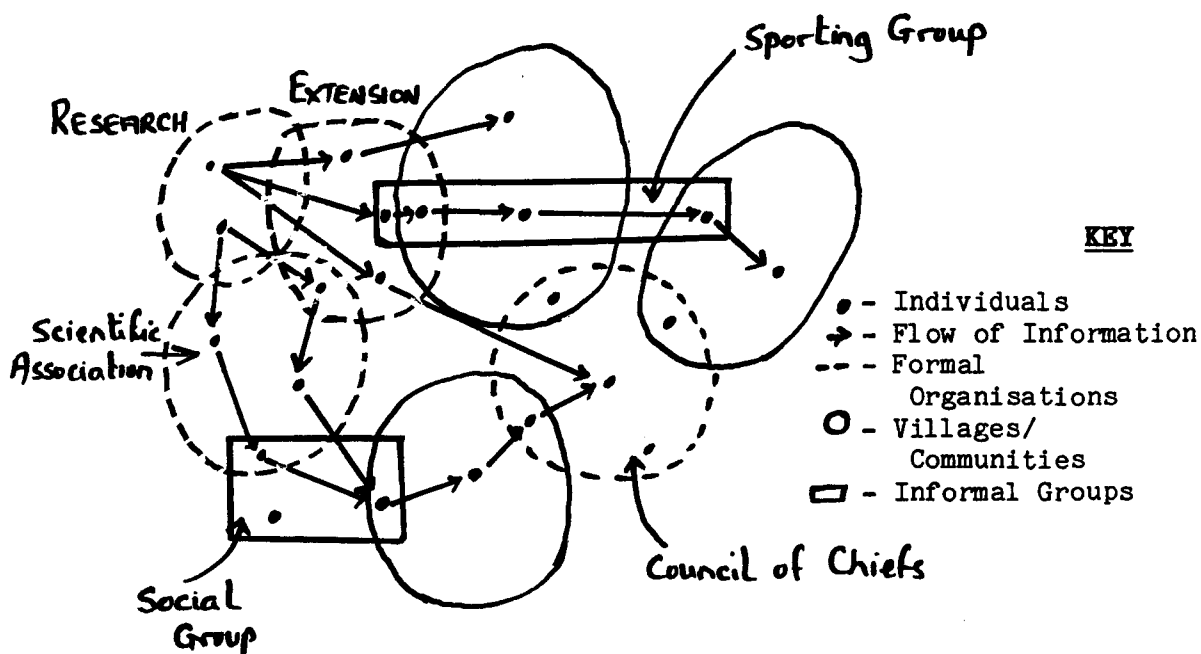
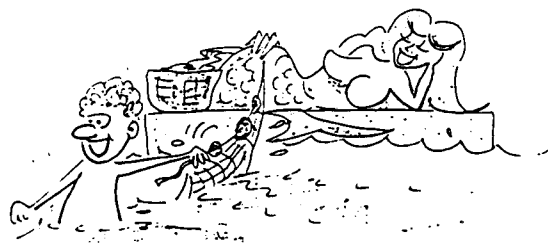


Figure 5 - Social interaction view of the change process

The figure illustrates both formal and informal channels of communication. There are also key individuals (or "stars") within groups who have greater influence in passing on information to a wider group. The informal pattern of communication can be a very powerful tool in the extension process.

Extension workers should be aware of the relationships between individuals and groups within the whole community and use these to spread the new ideas more quickly.

An extension worker can use the model by drawing up socio-grams to depict who are the influential people within groups/communities and to depict the links between groups.



The key influentials are the ones with whom extension workers should start the spread of new ideas.

RESOURCE MODEL OF EXTENSION



The Resource Model of Extension was developed from adult education principles and assumes that fishermen (and all adults) are self-directed learners and as such they seek out information which is most relevant to their current needs and problems.

They will then use this information, with their own experience, to make decisions about how they will change their fishing practices. The motivation to seek out information from relevant sources.

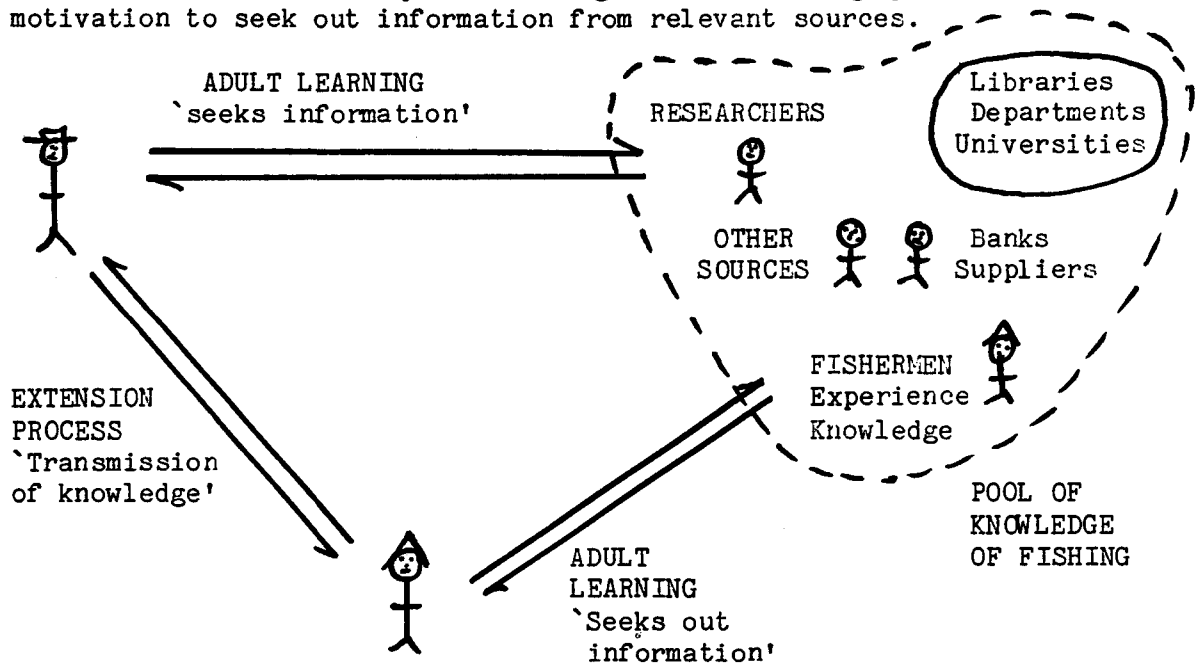
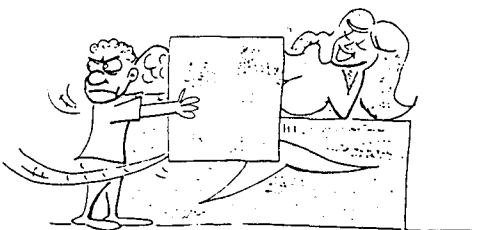


Figure 6 - A resource model of extension

Some aspects to be considered:-

- (i) this model suggests that service organisations, such as government extension services, could operate more effectively as information resources catering to self directed fishermen.
- (ii) the model is based on dialogue between the various parts of the system.
- (iii) the skills needed by extension workers are helping skills such as listening, interviewing, counselling and problem solving.

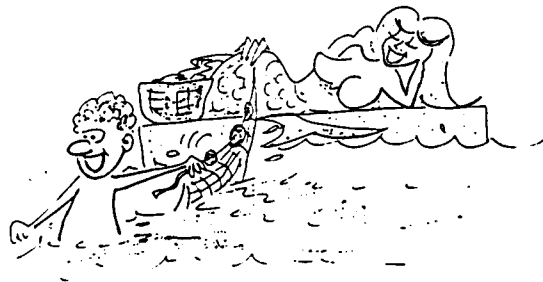


The model does not address the changes needed by Government in society for the benefit of the whole society - certainly it is an inefficient strategy to wait until everyone sees such a change as relevant to himself.

Also it does not address the problem of disseminating new ideas from outside, although it could be said that the global resources are now available to individuals.

Another feature is the amount of work that might be generated - can the extension worker to meet the needs for individual contact by the fishermen?

The extension worker using this model as a base would see himself as an individual source of information for the fisherman. He would also contribute to the pool of knowledge through his own experience, his knowledge of fishing and fishermen, by his contribution to research and as a conduit for others to pass information through.



To achieve results in programmes it may be necessary to influence people in "the pool of knowledge" rather than the fishermen directly.

Choice of extension method

The choice of extension strategy may be decided by the application of a particular model and will be modified in view of five factors:

1. the characteristics of the new idea.
2. the characteristics of the fishermen.
3. the communication method.
4. the social and political environment.

1. Characteristics of a New Idea

The features of a new idea can affect the rate of its adoption. These characteristics may be real or they may be seen to be real by the fishermen. If an idea is complicated, expensive to put into practice, causes a drastic change in the existing traditions or values it would tend to be rejected or put into practice only slowly.

An example was a fish processing plant which was installed on a small atoll island in French Polynesia. This plant depended on regular supplies of fish for its operation and the local people to operate the plant. In spite of advantages such as regular income, free electric power and modern facilities, working 8 hours per day caused such a fundamental change to the local lifestyle that they rejected the advantage in favour of their traditional lifestyle. The plant failed. On the other hand if an idea is simple, fits in with current practice, has benefits which are easy to see and does not go against tradition it will be adopted rapidly.

An example is fixed reels for bottom fishing.

2. The Characteristics of the Fishermen

Most Pacific Islanders are part-time fishermen and have low cash incomes from fishing. Because of this they are subsistence farmers as well.

Fishermen in the traditional pattern are diffident about approaching extension officers and other government agencies for information. They are wary of change particularly a change they do not understand.

So the diffusion of an idea through a community and the adoption of new ideas may be particularly slow.

As a result of the low income levels there is a lack of finance to assist with the adoption of new ideas. The use of echo-sounders or an electric reel are not adopted because there is no money to buy them rather than fishermen not seeing the benefits of the expensive new equipment. To overcome these problems simple, low cost technology should be developed or a subsidy introduced.

3. The Communication Method

Most of the Pacific Islands have poor mass communication - there are few newspapers and little or no television. The most used communication method is face to face communication with individuals or in groups. Therefore the use of group discussions techniques are most appropriate, as well as developing the persona relation skills of one to one communication.

In some countries access to radio is limited. However where access is available radio is a very useful medium for extension.

Whatever medium is being used extension workers should keep the messages simple and relevant to the audience.

4. Social and Political Environment

The social and political systems in the Pacific can be used to help promote new ideas but they can also be the main cause of ideas not being put into practice. Political influence in the form of loans or subsidies may give impetus to new ideas particularly around election time - however this approach can cause problems later when hard work is needed to make the idea work.

Extension workers must be aware of the social patterns and influences within the community. They can increase their effectiveness by identifying and using key people in the system.

Establishing informal communication patterns or networks with the best fishermen, innovators and their relatives and friends will help achieve extension goals.

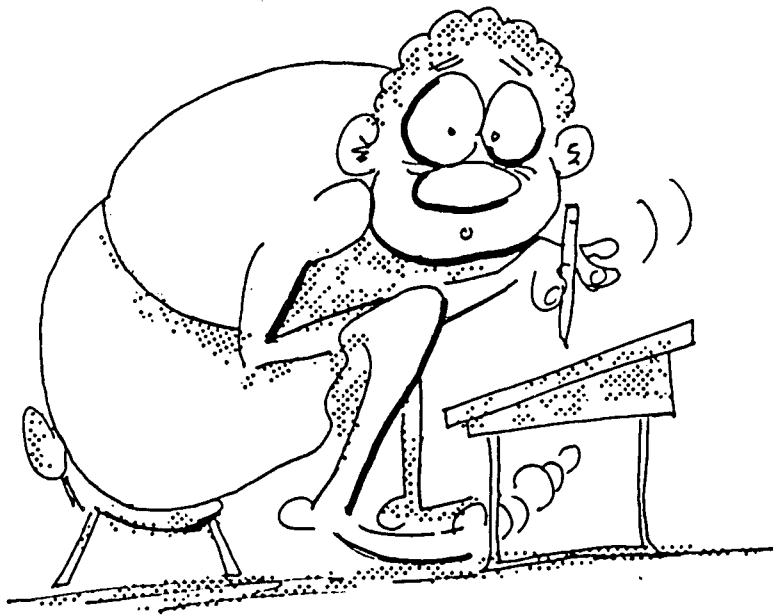
Extension workers should use community organisations and cooperative structures to the fullest.

Conclusion

The practice of extension is not simply the spreading of a clear message which is then taken up and used.

The extension models lead to an understanding of the complex nature of extension work by focusing on the complexities in the situation.

Through an understanding of the models, extension workers will more readily choose the best method to spread information and have new ideas put into practice.



ADULT EDUCATION

Extension has been defined as a means of spreading and enlarging useful knowledge and skills to people (fishermen) Thus extension is similar to adult education. Every extension worker deals with adults. The persons whom extension workers are trying to change are adults first and foremost. Fisheries extension workers can be seen to be:

- adult educators
- people who help and guide adults to advance in fisheries orientated development.

Every fisheries extension worker is working to have some form of change made. They are responsible for making available relevant information and knowledge and therefore:

- must identify reasons for change;
- take into account the pressures on the individual leading towards changes and the pressures on people to resist change.

Learning is a lifelong process. Fishermen have experience, have some form of goals that they work towards, and belong to a network within their family, their community and the larger community.

Adult learning is often through experience and a lot of this is informal and based in their own environment. They learn by watching and listening; practising and doing. It is therefore important for extension officers to have knowledge of how adults learn and to design the extension activities accordingly.

PRINCIPLES OF ADULT EDUCATION

There are basic principles in adult learning. Though they are listed as principles one, two, three, etc., they are in no particular order of priority or value. They are of equal worth and provide guidance for a fisheries extension officer working with adult groups in the field.

Adults (fishermen) come to extension activities for a variety of reasons. They may come for the social get together, or to find the answer to a specific problem, or from general interest. To ensure that the activity meets the needs of the people, the extension worker should involve them in planning the activity. Planning their own activity will motivate people to learn.

Principle One: Let adults be involved in planning their educational experiences.

In any long term activity, the programme has to meet the changing needs of the participants. Such a programme must provide information or activities which give sufficient reason for the people to continue to come to the activity.

Principle Two: Adult education programmes for fishermen must serve the specific needs of the fishermen and provide sufficient reason for them to continue to be involved.

Principle Three: Stimulate learning by participation and action and above all avoid a classroom approach.

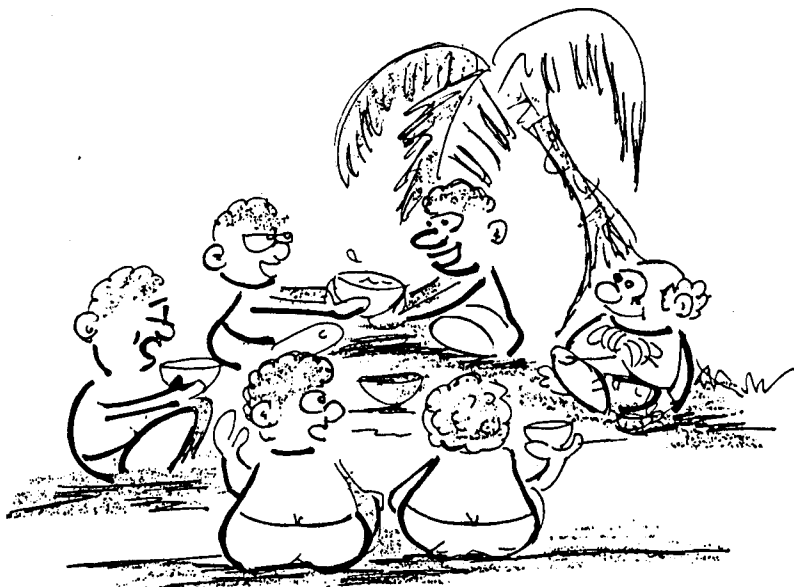
It is important not to lecture or to make fishermen appear foolish with the use of sarcasm or any other bad teaching traits. Keep your audience at ease by involving them in the learning experience you are conducting. Use visual aids, exercises or any approach which you feel will help stimulate your audience to think and become involved in what you are doing. This also avoids a teacher/classroom situation.

More can be learnt when all senses are engaged than one alone, and by having people share their expressions. An illustrated talk has more impact than just a talk. By showing what you are talking about you will also help relieve any anxiety or tension felt in the new set of circumstances by your audience.

Principle Four: Relieve the initial anxiety and tension by responding to the needs of your audience - (flexible programming).

When adults are faced with a new learning experience they are often anxious about their own deficiencies and about showing these in public.

An extension activity should be structured to take these feelings into account. One way is to start with what people know and lead from this to the new knowledge/activity by using small groups to discuss amongst themselves what they know about a particular topic.



Informal group discussion

Also by creating an atmosphere which is unhurried and informal, people will ask questions, respond and learn new ideas more easily.

Take it slowly and reinforce ideas at every opportunity. People should be told when they are right as it builds confidence and self-esteem. Letting people know they are right is particularly important when dealing with a new subject.

Principle Five: Build on local experience, lead the group from what is known to the new material.

Principle Six: Take difficult subjects slowly and allow time for questions from your audience.

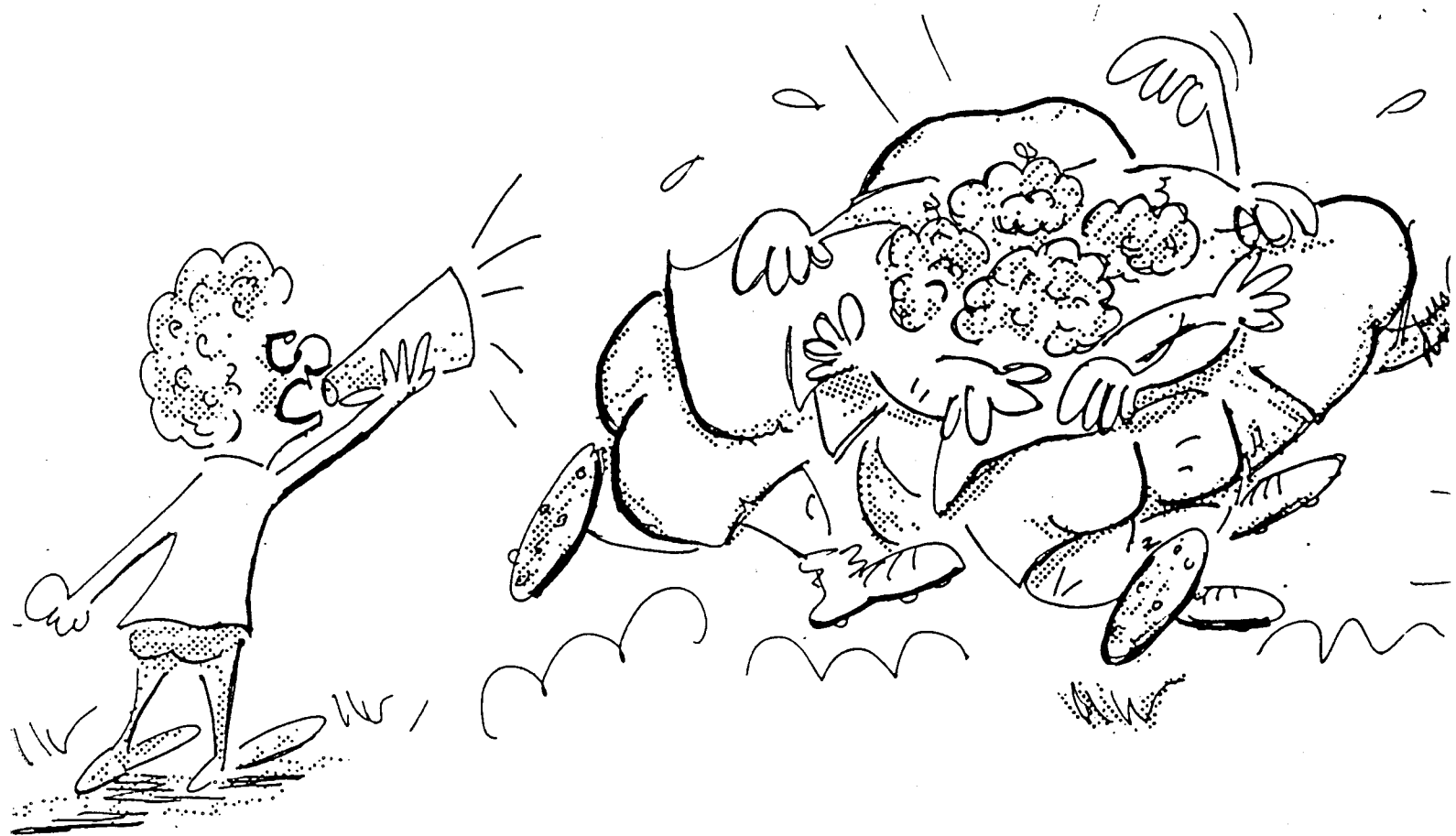
Principle Seven: Build individual and group confidence by letting them know when they are right - give them a knowledge of their learning achievement.

Do not be afraid to change the programme if you feel it will help. A change shows you are responding to your audience's needs and thus will give them more confidence in you.

Summary

The basic aim of all the principles is to have the participants (fishermen) completely involved in their own learning processes. The basis of learning is strong motivation and plenty of activity. The fishermen should be left to work out their own solutions and to make their own decisions. The principles are nothing more than guidelines to help extension workers encourage participation, involvement and concern for new ideas among their clients.

These principles can also be used to evaluate an extension activity or programme.



TEACHING AND COACHING

A four step method to teach skills is outlined so that an extension worker can better perform the job of training individuals to do a task.

Teaching and coaching skills are essential skills for an extension officer who wants to get his job done. They are the basics of passing new skills on to a client.

Teaching is more than just a job. It requires a lot of understanding of the target audience because the teacher's goal is to create change in the learner. A teacher is ineffective if the learners are not able to put into practise what the teacher has taught them.

Effective skills teachers should:

- i) know their subject matter thoroughly;
purpose of teaching - to teach something;
- ii) know the techniques and skills of teaching;
- iii) want the "student" to know how to do the job being taught;
- iv) understand the need and motivations of the individual and be aware of their resources;
- v) help the individual to learn rather than force them to change.

Because teaching involves the learner/students in a learning experience it is vital to understand the process of learning. Before a person learns he must:

- (1) notice something - awareness;
- (2) want something - need;
- (3) do something - action;
- (4) get something - satisfaction.

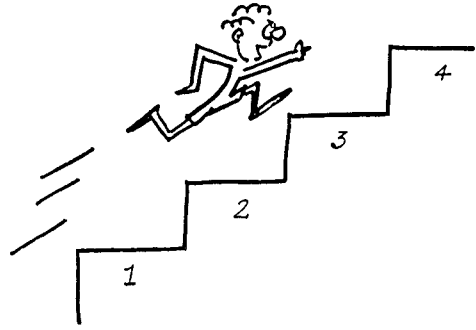
Successful teaching depends on the individual making a permanent change. The teacher cannot rest on the fact that the knowledge has been presented. The learners must be prepared to notice, want, act and gain satisfaction.

To achieve permanent change it may be necessary to learn by trial and error or by just watching. A learner undergoing this experience will:

- take a longer time to reach the desired standard;
- make more errors than necessary; and
- may form some undesirable attitudes or habits as a result of frustration during the learning process which will have to be countered.

FOUR-STEP INSTRUCTION PROCESS

The four (4) step method was developed during World War 2 in the USA to train workers to replace those at war. It provides simple and basic principles of learning and is very effective.



Step 1: PREPARE

There are two aspects in preparation.

- (1) Plan the Instruction. Your first task is to decide the objectives of the instructional session - what you want the trainee to be able to do at the end of the instruction. Taking some care over this can often save you from attempting too much in one session. This is worthwhile, because a trainee can absorb only so much new information at one sitting and any instruction beyond that point is time wasted, apart from the undesirable effects it will have on the trainee.

Having decided on your objectives you then make sure that you have all the material you will need. This will include examples, copies of regulations, finished articles or examples you have prepared. Have any necessary equipment available and make sure that the work place is neat and tidy.

Spend some time planning exactly how you will present the instruction. If necessary, prepare a check list of key points. Remember that what seems simple and straightforward to you may not be so simple for the trainee, so give some thought to how you will explain how and why certain things are done.

- (2) Prepare the Trainee for Learning. Any person who is required to learn a new job is in a stress situation. This is particularly true of younger people and especially those new to the job. Try to get the trainee to relax for a few minutes and their first impressions of their new work environment will be more favourable. You may also gain valuable information about their background, interests, and experience that will assist you in your instructing task.

Step 2: PRESENT THE INSTRUCTION

If your Preparation step was well done, this stage should be relatively easy.

Begin by giving a concise overall explanation of the job or task that is the subject of the instruction, including an explanation of how it fits in the overall work scene. This will make the subsequent instruction more meaningful to the trainee and that in turn will aid their retention of the new information.

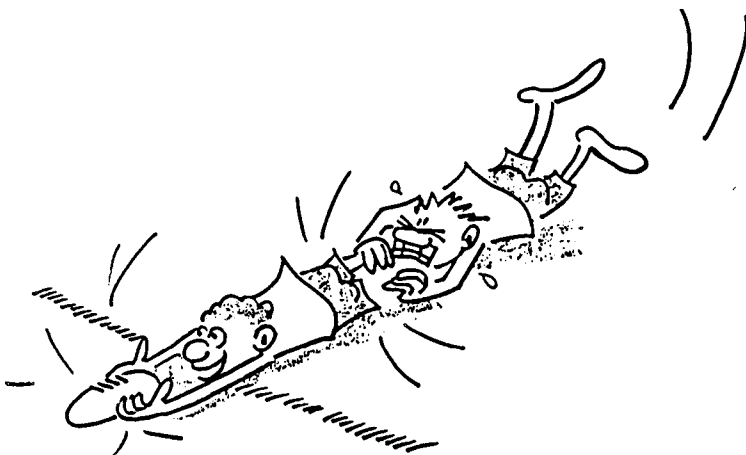
Demonstrate the task stage by stage, presenting the instruction in logical steps so that each process makes sense on its own. Explain

fully what you are doing and why, emphasizing any key points. Key points are those things that make the difference between a skilled performance and an amateurish attempt. They are the special techniques that the skilled operator tends to use without conscious thought so very often they aren't all passed on to the learner. You need to be aware of these and include them in your presentation. (Safety points are always key points.)

Make sure that the trainee is positioned correctly so that they observe the demonstration from the operating viewpoint. This is vital if a manipulative task is involved.

Step 3: TRY OUT

Have the trainee perform the task, using any aids if they wish. Correct mistakes as they occur - allowing errors to go uncorrected until the whole task is complete reinforces the incorrect learning, and makes learning the correct response that much more difficult. Remember that the job of the instructor is to make it as easy as possible for the learner to learn.



Next have the trainee perform the task again, this time explaining to you what they are doing. Getting them to explain serves two purposes- (a) it helps reinforce the learning still further, and (b) provides a test of whether they have really understood. Continue this process until you are satisfied that they have mastered the task. You cannot be sure they have learnt until you have seen them perform the task correctly at least once. The supervisor/instructors who defend themselves when trainees make mistakes by saying "But I told them...." are only drawing attention to their own inefficiency.

Step 4: FOLLOW UP

At this stage you leave the trainee to proceed on their own. There are only two points to be aware of here:

- (a) make sure the trainee knows to whom they can go to for help if necessary. (If it's not yourself, make sure the person involved has been briefed on their responsibilities);
- (b) check the trainee's progress, frequently at first, then at decreasing intervals.



TWO-WAY COMMUNICATION

Even if you know the technical side of your work well, this knowledge will be of little use to you unless you can put your message across effectively. The impression you make on people largely depends on your communication skills. Face to face discussion is one of the most important parts of your job as an extension officer. These discussions require two-way communication skills.

Two-way communication skills are practised by everyone to a greater or lesser extent. A more detailed understanding of the different processes involved can be gained by examining these skills under the following headings:

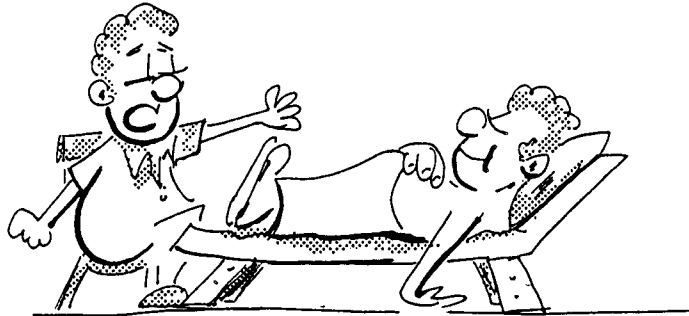
- . helping people feel relaxed
- . asking questions
- . active listening
- . taking the lead in conversation
- . ways of handling pressure
- . putting across new ideas.

Each of these skills is discussed in some detail below. You use each of the skills from time to time already.

By making a closer study of when and why you should use each skills you may be able with practise, to greatly increase your ability to convince people that you have a useful message for them to hear.

Helping People Feel Relaxed

In order to have a useful exchange of ideas with someone it is important that you should both feel relaxed. As a government extension officer visiting a fisherman you may have a disadvantage. You may be better educated, better dressed and arrive in a better boat than the fisherman has. It is therefore most important that you show you are friendly and relaxed towards him and are happy to speak with him on equal terms. You will gain nothing and probably lose the chance of gaining useful information by trying to make yourself appear superior.



A good talker pays attention to how he behaves whilst listening. To help someone be comfortable you should sit or stand with your more or less on the same level as the other person. Your body should appear alert and attentive. This means, if you are sitting, sit upright and lean slightly forward, not slouched back. Keep looking at the person's

eyes for short intervals but avoid staring at him. Show you are listening by nodding and encouraging the speaker to continue.

The distance you are from the talker is important too, be careful not to sit too close to him or to be too direct. Be careful not to give the impression of impatience, e.g. by repeatedly looking at your watch. If you do have another meeting and have to check your watch then be honest and explain this.

Use names regularly in a friendly way. Start off the conversation by talking about things of general interest, ask after his family and perhaps discuss a topic of local interest before arriving at the main point of your visit. Every situation is different and it is really up to you to get the meeting off to a good start.

Wherever possible try not to show any anger, surprise or impatience during your discussion. If you have arrived at an inconvenient time, or if you cannot maintain a friendly atmosphere then it is best to leave as gracefully as possible. Raise the possibility of returning at a later date before you go.

Asking Questions



Being able to ask questions in such a way that the person talks freely but sticks to the point is a skill well worth developing. It can save time, ensure that you get the information you require and help you understand what the person is trying to tell you.

Having managed to create an open, friendly feeling between yourself and the fisherman it is now time perhaps, to gather the information for which you came. Asking what is known as "open questions".

These encourage the other person to do much more talking than just giving "yes" or "no" answers. This type of question starts with, eg. "What do you think of....", or "What is your experience of" or "Why...", "How..."etc.

Sometimes you might find that people start to tell stories which are not connected with what you have to talk about. Sometimes its good to let them talk, while at other times you may have to try and guide the conversation back to the point. If you can do this by asking the type of question which requires shorter more direct answers. This type of question is called a "closed question". Closed questions require the person to say whether he approves, disapproves, agrees or disagrees, say yes/no/not sure, or to select an alternative or to answer in reply to a "who, when, where or which" question.

Active Listening

How often have you been talking to someone, perhaps your boss, when it seems that either he is not listening properly or doesn't understand what you are trying to say? Doesn't it make you lose interest in saying much more? The secret to good listening is active listening. Actively show that you are interested and understand what the other person is talking about.



An important part of active listening, when the other person is influenced by some emotion such as anger, embarrassment or worry, is to first tackle the root of the problem. An angry person is less likely to change his viewpoint or accept a new idea whilst angry and someone who is embarrassed is unlikely to talk openly. Very often people try to conceal their emotions but their true feelings show through the way they stand, moves hands, or feet and so on. These small visual signs of someone's hidden emotions are called body language.

When you see that someone is emotional (or doubtful) in someway it may be worth asking him what the problem is and even discussing it at some length. This will give him the chance to talk through the emotion which is restricting his reasoning or open conversation. Alternatively in less extreme situations a person might show his doubts about something by saying "There seems to be a lot to think about", you could reply "you seem to have some doubts about this method?" This is called a reflective question by. Reflecting is an attempt, to select or say back the real feeling behind the words which the other person is using.

Often it helps to demonstrate to the person that you have taken in what he has said. This will also help to make it clear in your own mind that you understand what they mean. Paraphrasing is the word given to what you do when you think you understand what someone means but just want to check. You can do this by simply the same thing but in different words. They would then be able to say whether you understand them correctly and would probably be more willing to continue talking.

Summarising is a skill similar to paraphrasing which helps you check that you have understood the full context of what someone has said to you. All you do is to repeat back to someone a shortened version, and

in different words, of what they have said. This helps to reassure the other person that they are not wasting their time talking and will often encourage them to go into greater detail if required.

One of the important ways of getting more information from someone is by showing them that you can see things from their point of view. Try and put yourself in their place. How would you feel if you were the small village fisherman (with no regular income and no bank account) about the suggestion that he should spend more time looking for new fishing areas. Life suddenly becomes very different when you don't have a regular salary to pay your daily meals or to buy gasoline for your outboard motor!

When listening you should try and let a person say what they have to say without interrupting to pass a judgement or to put across an opposite point of view. Interrupting or arguing may cause them, especially if they are not very confident, to forget what they were going to say next or else make them frightened of causing any conflict.

Taking the Lead in Conversation/Action

As an extension officer you may often find that you need to take the lead in steering a discussion, or certain activities in the direction you require. You can do this to your advantage by developing initiating skills.

One of the simplest ways to take the lead and which you will have practised many times, is to be quite straightforward about what you require to gain from your visit. To start with you should put this across in such a way that you place no demands on the other person. In this way the other person will see how their behaviour or the present situation will affect you. The other is then placed in a good position to decide whether or not they can be of any help to you.

Sometimes you may find that you are not sure whether someone has really understood what you are saying or asking. This can put you in a rather difficult position unless you check whether they have understood you. When checking you require to make sure you do not hurt their feelings. A useful way to do this tactfully is to say "I am not sure if I have expressed myself clearly, perhaps you would like to tell me in your own words what I have been trying to say?"



In a situation where you are expected to take the lead you may encourage co-operation by asking the other person to suggest an objective or goal on which you can both agree. You can encourage the other person to come up with the idea you have in mind by asking other questions which might help them to come to the conclusion which have already in your own mind. This takes some practice and clear thinking but can be very effective, especially as the other person considers it was their idea. This is goal inviting.

A similar method is called goal setting. This time you come up with the idea rather than waiting for the other to make the suggestion. You will probably find that it will be more acceptable if you put it across as a question, eg. "What would happen if we". In this case he would be less likely to object to just for sake of objecting; if he had any real objections he would be more likely to state clearly what they were. On the other hand he may find it easier to accept the idea because he has already been offered the chance to refuse but chooses instead to accept.

Ways of Handling Pressure

When you are involved in a disagreement certain skills can be used to help you stick to your point of view. These are called assertions skills because they can help you assert yourself in these situations. When you feel you are justified about not changing your mind it is probably more productive to be assertive instead of aggressive (i.e. demanding strongly).

Being assertive probably requires more skill than simply being aggressive and demanding your own way. One way which stops just short of being aggressive is to simply insist by repeating the main points of what you are saying in a quiet, unhurried voice and in a pleasant way.

Very often in some disagreement certain accusations can be made or implied against you. Especially when they are implied it is often useful to enquire for more details. Ask the person exactly what they mean and what their need in connection with the subject being discussed. This will give you the opportunity perhaps to correct a mistaken assumption and, for example, explain that there was a good reason for what had to be done.

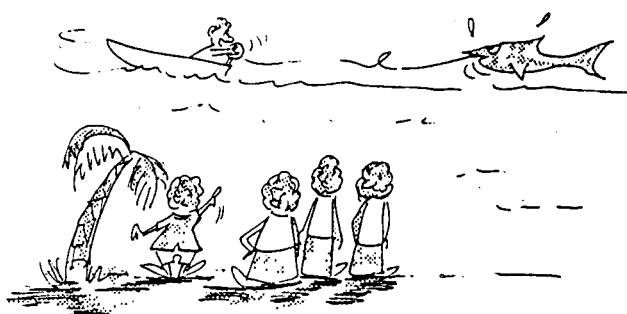


Finally when some part of the opposite viewpoint to your own is correct, it can often be a good idea to quite openly accept that it is true. If you feel it is necessary you may give the reason and apologise when you have made a mistake. If you forgot then say so. During a heated argument it can help the other person accept your point of view if you can openly accept as much as possible of what they are

saying is correct. Then show how a different interpretation and awareness of extra information can lead to a different opinion or decision. When the other person finds you agree to, or accept, some of the small points they were making they may be much more likely to be persuaded on the main point.

Putting Across New Ideas

One of the first things to do when putting across a new idea is to get the other person's confidence. This can be done if you show you are interested in their problems, from their point of view and want to help them.



It is important that you start by tactfully finding out how much a person knows about the topic. Then you add to this knowledge step by step. Do not try and make yourself look clever or show off by using words they do not understand.

Many other things apart from the main points affect a person's decision.

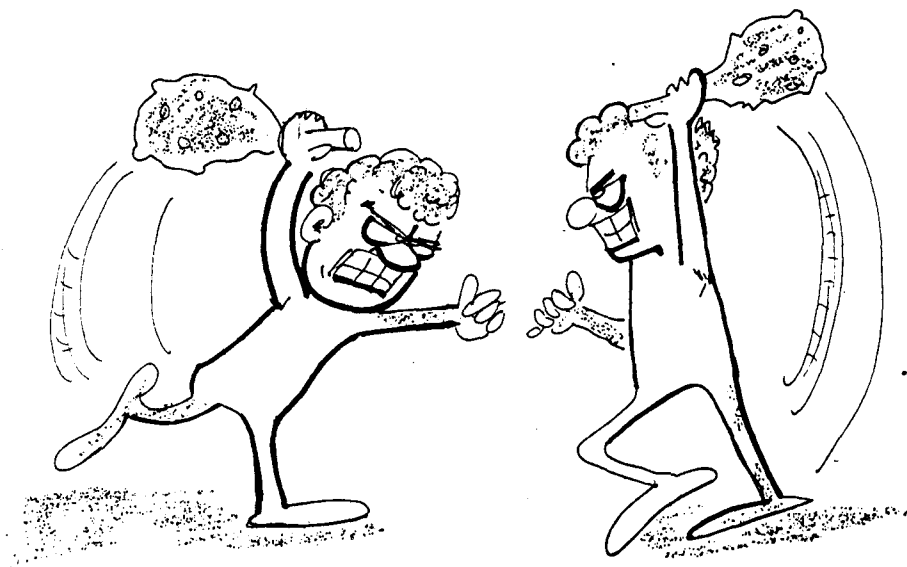
Decisions often have to be balanced out against factors such as other people's opinions, the amount of time they must spend on other activities such as gardening, the church and social obligations.

From your observations and knowledge of a person's background you should be able to assess their ability to manage something new. Do be careful not to recommend something which will prove too difficult, eg. don't recommend an echo sounder if the fisherman operates from an open exposed canoe in windy conditions.

When you are talking to people about something new be careful not to appear to be forcing it on them. Give people the chance to ask questions by arousing their curiosity. Sometimes you can get them to point out some of the good points to you. This way they will be more convinced than by listening to you pointing out all the advantages.

Often people from more traditional backgrounds are more cautious about changing their ways. They are often less likely to be persuaded by ideas only. One of the most effective extension agents is the successful fisherman. If villagers can have the chance to see another fisherman successfully using a more advanced method or craft on their home ground they will be keen to discuss things with him. They will then have a more better in their own mind about whether they should try out the new idea.

If you give the impression of efficiency people are more likely to take an interest in your ideas. A good impression is created if you memorise, or keep a note of, answers to commonly asked questions, eg. the prices of the most commonly used nets, or addresses of the net shops. A notebook or a good, simple filing system will help you find the necessary information quickly. Well arranged photographs about the main aspects of your work can save a lot of explanation and will create a good impression also.



WAYS OF HANDLING DIFFICULT SITUATIONS

In the last chapter some ways of handling pressure were discussed. The ability to cope with difficult situations, disagreements and conflict is amongst the most important skills for a fisheries extension officer.

Our Pacific countries consist of many differing island groups and cultures and conflicts can arise between these groups and cultures as well as between individuals, government organisations and at a national level.

A definition of conflict covers a wide range and may include inconsistency, disagreement, differences in goals and objectives, emotional differences and the way people see things.

Conflict can be a process where one person disagrees with another, where one person attempts to achieve goals in the face of opposition. Also it can be when one person is frustrated by another or in turn is going to frustrate someone else.

Examples:

- (a) A fisherman is angry when a fellow fisherman sells fish at a very low price;
- (b) Fishing groups having differences in who will captain their fishing boat;
- (c) One of your work mates disagrees with your idea of increasing licence fees.

Conflict is not necessarily bad, it can be healthy. There are ways of handling conflict to cope with it and perhaps turn it to advantage for both parties.

The five distinct ways are as follows:

- competition, (force)
- collaboration, (working together as equals)
- avoiding, (don't care)
- accommodating, (giving way)
- compromise, (make concession).

COMPETITION

In competition there is a desire by one of the party's to get its way at the expense of the other party. To get what they want the competitor uses whatever power is available and acceptable. This may be in position or rank, in information, in experience, in economic status or in ability to persuade.

Competing can be seen as a win/lose strategy - one party wins, the other loses. However, it may be an appropriate strategy in some circumstances such as leading men in battle or parental control of children.

COLLABORATION

This method is used by those whose aim is to satisfy the needs and concerns of both parties. It involves the use of both co-operation and assertion. Collaboration means:

- (i) agreeing that there is a conflict;
- (ii) identifying and accepting each other's needs, worries and targets;
- (iii) stating other solutions and their consequences for each person;
- (iv) selecting an alternative that best fits the needs and concerns of both parties;
- (v) practising the alternative selected and evaluating the outcomes.

This requires more commitment and takes more time and energy. It is the best method of all when both parties are committed to a resolution as its outcome satisfies both parties' goals. It is a mature adult approach to solving difficulties.

AVOIDANCE

Both parties seem to have an unco-operative and unassertive manner, they have a "Don't care" attitude. Those using it simply do not address the conflict and are indifferent to other's needs and worries. They either withdraw from discussions, evade issues, or even stay away all together.

Effective use of avoidance can be as an interim or permanent strategy. Sometimes it is useful to avoid the conflict to allow the other person to cool down and there are times when avoiding a situation is necessary to collect more information.

ACCOMMODATION

Accommodation is characterised by co-operative and unassertive behaviour by the individual. The other person's needs and concerns are put above one's own, even though both individuals have very strong concerns in the situation.

When one party is not as worried as the other, accommodation is both appropriate and effective. Accommodating to another's needs builds goodwill and strengthens relationships between individuals. It is also useful when preserving peace and avoiding disruptions which is vital to a project.

COMPROMISE

Comprise lies between competition, collaboration, avoidance and accommodation.

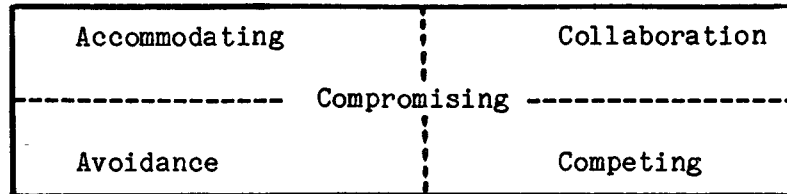


Figure 6 - Relationship Between Styles of Coping with Conflict

Both co-operation and assertion are used in reaching compromise. Both parties have to give way some part of their position to at least partly meet their targets.

What is sought is a solution that is acceptable to both parties which goes some way to meeting the goals of both parties.

Compromise is effective when short term answers are needed to difficult issues in a short period of time.

It can be used when the goals being sought by the parties involved are only moderately important.

When collaboration does not fully work, compromise will usually be the resulting strategy.

WHICH STYLE SHOULD YOU USE

Everyone has a different way to cope with the various difficult situations which crop up. To effectively manage conflict it will be necessary to be able to use all styles and to be able to decide which is appropriate in a particular situation.

If one style is preferred and used to the exclusion of others it can lead to conflict situations becoming worse.

However everyone uses all the styles at some time and it is more a matter of understanding what they each are and the one which is most appropriate in certain circumstances.

SUMMARY

Everyone is involved in conflict and tend to use a certain style to cope with these difficulties. It is important to understand what your preferred style is and the consequences of overusing that style. Also there is a need to understand the differing styles of coping with conflict and using each as appropriate.



PUBLIC SPEAKING - TALKING TO GROUPS

Although dealing with individual fishermen and answering their queries is the main work of fisheries extension officers, there are many occasions when they have to speak in public - to small and large groups. Public speaking on any occasion requires preparation and planning as well as confidence and good techniques. Confidence is built through careful preparation and planning but more so through practise.

PREPARATION BEFORE YOU WRITE YOUR TALK

Purpose

The starting point in preparation is to decide the purpose of your talk. This could be:

- (a) to inform or instruct;
- (b) to convince or persuade;
- (c) to generate action.

Subject selection

- (a) is it relevant to the audience?
- (b) is the subject topical?
- (c) is the subject practical?
- (d) is the subject informative?
- (e) is the subject newsworthy?



Research

Look for the following information:

- (a) to whom will I be talking? (decide who your audience is)
- (b) what is the aim of the speech?
- (c) how many will there be?
- (d) how much do they already know?
- (e) what do they want to know?
- (f) what is the message to be put across?
- (g) do you want action from your audience?

With these points in mind decide on your overall approach to your talk.

PLANNING A TALK/SPEECH

After deciding on a relevant topic and completing the necessary research, the speaker should consider what he wants as a response to the talk.

So settle on the conclusion - how the address is to finish up.

Then, plan an introduction which gains immediate attention. Prepare a logical sequence of key points.

Write out the talk and edit out the unessentials. Repeatedly go through the outline looking for logical order, interest, persuasiveness and try to improve it each time.

Introduction

Introductions should be short, novel, relevant and striking. For instance:

- (a) Deliver greetings or a personal message;
- (b) Announce the subject in your first words;
- (c) Ask a question;
- (d) Use a striking quote;
- (e) Use an exhibit;
- (f) Relate a human interest story;
- (g) Begin with a specific illustration;
- (h) Relate the topic to the audience;
- (i) State a startling or shocking fact.

The introduction should also relate briefly the topic, why it is important (benefits to the audience), the outline of the talk and the time it is expected to take.

Conclusion

Like introduction, a conclusion, should be brief and it should:

- (a) summarise the main points made in the body of the speech;
- (b) end on a climax.

The conclusion can include compliments to the audience or a suitable quotation.

The conclusion should urge the appropriate action or adoption of the view you are putting forcefully.

Let the Chairman ask the audience for questions (if there is a chairman).

Speakers notes

- (a) Dwell around colourful key words;
- (b) Keep short sentences;
- (c) Make only one or two points in a sentence or paragraph;
- (d) Avoid difficult words, technical terms or ideas that the audience may not understand;
- (e) Use small pages;
- (f) Keep lines on the page short, and leave wide margins;
- (g) Do not carry over a paragraph to the next page;
- (h) Number pages boldly in the top right hand corner;
- (i) Use thick paper that does not rustle or sag.

Memory cards - small cards where you summarise main points that can be held in the palm of the hand. Once you finish with one card slip it to the bottom of the pack.

PRACTISE YOUR TALK

Practising and polishing

Practice speech delivery with a tape recorder or an imaginary audience. Polish and re-edit it.

As you rehearse, see if confidence can be added by:

- (a) Using figures of speech;
- (b) Repeating phrases or key words;
- (c) Using synonyms to avoid repetition;
- (d) Mixing short and long sentences, stringing together several short snappy sentences;
- (e) Replacing a statement by question.

INGREDIENTS OF GOOD PUBLIC SPEAKING

- (a) Select a relevant and familiar topic;
- (b) Do a thorough research of the topic;
- (c) Prepare speech notes;
- (d) Be brief and simple;
- (e) Draw attention to the main points;
- (f) Emphasise and illustrate;
- (g) Maintain eye contact;
- (h) Conclude with comments, summary and ask for questions.





WORKING WITH GROUPS OF PEOPLE

A group is defined as "a number of people brought together for a given purpose." The distinction which is being made is that as an extension officer you will need to use different communication skills when dealing with several people to those needed when dealing with just one person.

As fisheries extension officers in the South Pacific you will find that there are at least four broad categories of groups with which you will work:

- (a) village groups;
- (b) other departments, authorities, and organisations;
- (c) established business, church and youth groups;
- (d) groups formed for short-term training sessions or other specific purposes.

Those in categories (a) and (b) have one thing in common; individuals are likely to know each other personally. Where groups are formed in which the members do not know each other personally it is necessary to take extra care to ensure all individuals become well acquainted as soon as possible.

Extension workers work with groups. Advantages of working with groups are as follows:

- it saves time;
- it quickly reveals information from a district;
- it identifies problems and views of villages as a whole;
- communities change more as groups rather than as individuals;
- it is necessary when community co-operation is required;
- it is useful when a lot of information must be conveyed;
- people benefit from the contribution of others;
- as you work with a group they come to know and respect you.

STAGES OF GROUP DEVELOPMENT

The social process which goes on when a number of people first come together for a common purpose and eventually bond together as a working group is called "group dynamics". Numerous studies have shown that the social process, or interaction between group members, follows a predictable pattern.

There are four stages from the group first coming together and finally moulding itself into an efficient working group. Some groups never reach the final stage. Other groups take longer than necessary to pass through the initial stages before becoming productive.

First Stage

The first process which involves everyone who comes into a group for the first time concerns each member's personal relationships with the others. Everybody to a greater or lesser extent needs to have friends and to maintain the respect of others. Each person will also wish to know:

- How to find his/her way around?
- Why is he/she in the group?
- What are people supposed to do in the group?
- How are they going to get it done?
- What is the overall purpose?
- How will he/she benefit?
- Is it going to be worthwhile?

Group members at this stage are necessarily very dependent on good, firm leadership. The major task is that of settling in. People require time to become confident within the group before they will participate freely.

Second stage

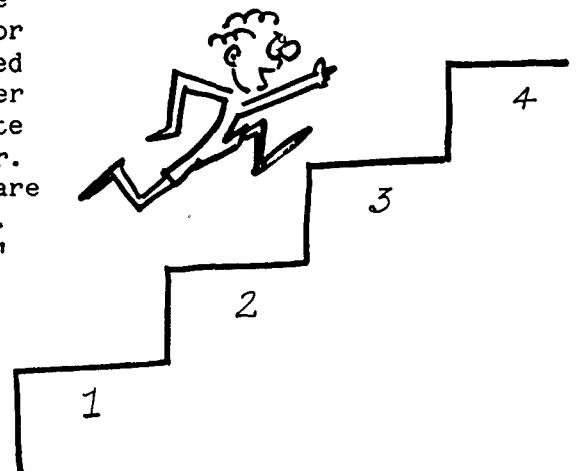
The start of the second stage can be recognised by the start of some level of personal conflict/competition between members in the organisation of tasks. The conflicts arise through differences in personality of group members. Who adopts the role of leader, either formally or more frequently informally, who opts out or is there a clash of knowledge. Individuals are therefore finding out their status within the group.

As a group becomes organised to get the work done new conflicts will arise. Who is going to be responsible for what? What are the rules? What are the limits or criteria? Who will get the rewards and other such questions?

When a group moves on to the third stage will depend on how well the competition over leadership, power and status has been managed.

Third Stage

The third stage is recognised by a feeling of togetherness. People have come to accept the role they play within the group and the (unofficial) status they have worked out for themselves and/or (officially) been assigned by other members. They get on well together as a group, share ideas, feelings, stimulate discussion, and give feedback to each other. They feel good about being together and share a common purpose with regard to their task. Sometimes there is a brief period of "play" when they abandon their work for the purpose of enjoying being together before going back to their task.



Fourth Stage

Not many groups get as far as the fourth stage. This is where group members become dependent on each other both with regard to personal relations and work output. They can work singly, in any sub-group, or as a whole group. They enjoy each other's company and are highly motivated towards getting the job done.

The figure below summarises the four stages of group development in two dimensions, those of personal relationships and task functions

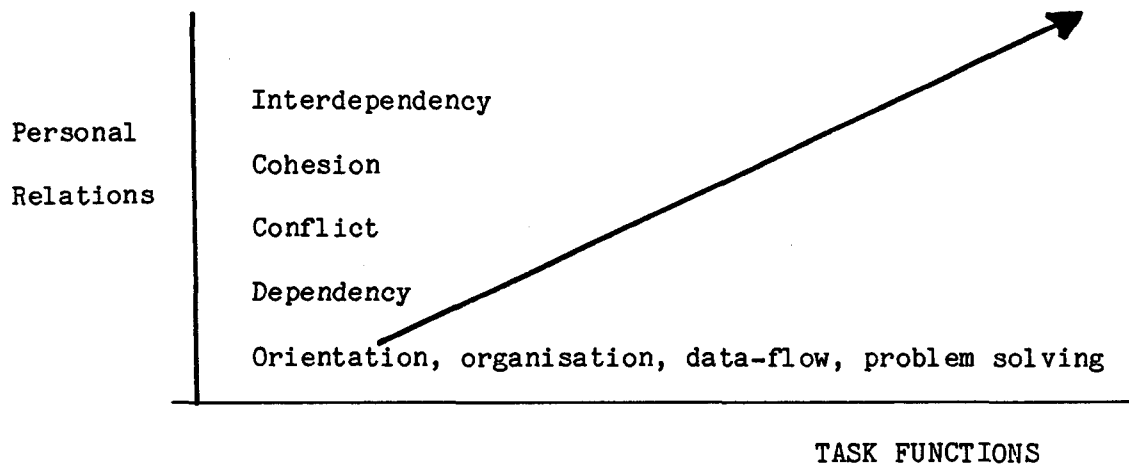


Figure 7 - Stages of Group Development - Relating to Personal Relations and Task Functions

LEADERSHIP OF GROUPS

New Groups

Groups of people brought together for the first time are often unsure of how to proceed. At this stage it is useful for you to provide firm leadership in order that things get off to a good start. A newly formed group requires to be given:

- a clear direction;
- a sense of purpose;
- the opportunity to reach some firm agreement as to how to proceed.

As relationships develop amongst a group you may find it useful to relax leadership control and encourage the group to run itself. This is most likely to occur when people know each other sufficiently well to feel relaxed whilst working together.

Discussion Leadership

The success of any group involves full participation of members. The first step is to breakdown the initial barriers of insecurity and

shyness. All group participants should be given the opportunity to introduce themselves and give a brief summary of their background. During the course of the meeting the leader should use names wherever possible. The aim is to inform everyone about who is presented what they represent.

As indicated in the section above on group dynamics, people also require to agree to:

- why they are there;
- what they are required to do;
- how they are required to do.

It is the task of the leader to help this process along as logically and as interestingly as possible. It is important to be able to do this by relating to people's points of view, whilst remaining neutral. A good leader should be able to spell out the points in favour of and against anything being discussed.

A good leader will have done his homework before the group meets and will have learnt a good deal about each member and his/her points of view. He/she is required to:

- keep discussion to the point;
- involve everyone in discussion;
- prevent domination by one or two.

A good knowledge of the background of each individual in the group, although not always possible, will assist in achieving these objectives.

Starting Group Discussion

Sometimes groups may be slow to start. One way to encourage participation is to start asking questions right at the beginning. These questions should be:

- clear, definite, well-timed, interesting and concise;
- help to highlight relationships, eg. behaviour, cause and effect.

The direction of the questions requires some thought. There are two dangers:

- no-one wants to start off and the questions fall flat; or
- one person answers all the questions.

The problem of directing a question to someone whom you know can give a good answer is that he may be too embarrassed at the beginning to do either himself or the question justice. Good judgement and some familiarity with the individuals concerned is useful in this situation.

A most useful alternative to directing questions at the group as a whole is to allow them to divide up into sub-groups, or working groups, of from 4 to 6 persons. Individuals should be allowed to join which ever group they prefer so that they work most effectively.

A useful technique to develop is to encourage groups to make the important points themselves as opposed to you spelling it out for them. The sub-groups are given large sheets of paper (for display purposes later) and a felt pen to record their conclusions. After a set time the sub-groups are called back together and the recorders of each asked to present their group's conclusions.

It can often be useful to develop this approach further for the purposes of identification of problems and for problem solving.

After calling the sub-groups together and each presenting their results, it is likely that each group will have gained something from the others. It is then useful to let the sub-groups form again to give priority to the various points raised and possibly to suggest solutions. This technique helps to bring activity and interest to a group which might otherwise lose interest during a long period of formal instructions. It is also a valuable tool for helping individuals make contacts within the main group and thus break down their sense of reservation.

FISHING PROJECTS AND GROUP SIZE

A number of sources have reported that greater attention is now being given to both the size and composition of groups being encouraged to go into small-scale commercial fishing. By its very nature fishing is an activity which demands a high degree of dedication and co-operation between group members. Often the size of the boat will limit the number of people involved at anyone time. Fishing is hard work and requires a high degree of motivation if carried out on a consistent basis.

Fishing as a commercial community activity carried out by a business group composed of a whole village or several different clans has been shown to have many drawbacks. Whilst some larger groups may succeed experience has shown that it is the smaller family-size groups which have the greatest chance of paying off loans and continuing as viable enterprises.

LIVE-IN TRAINING COURSES/WORKSHOPS

Running of residential training courses and workshops can be a very useful method of extension. The advantage of holding such courses are listed below:

- they are ideal for intensive study of a topic, free from outside distractions;
- The reassessment of major issues and change or attitude is more likely to follow under live-in conditions than from just occasional meetings;
- they concentrate the efforts of extension staff;
- the sense of completing something useful is given to extension officers who have organised the course;

- the live-in atmosphere builds strong links between participants and extension staff.

A study of the section on group dynamics will give you a good idea how to help group members adjust to working within the group.

MEETINGS

How often have you attended meetings in which:

- key people forgot to turn up;
- discussion jumped erratically from topic to topic;
- spent much too long on trivial matters;
- ran out of time on important issues
- you left feeling you had wasted your time?

Certain procedures should be followed in order that meetings achieve their objectives. These are discussed below, under the following five headings:

- i) Planning of meetings
- ii) Specify and inform
- iii) Time and order planning of agenda
- iv) Structure and control discussion
- v) Summarise and record

(i) Planning of meetings

A successful meeting requires a good deal of planning in advance. It must be made quite clear why the meeting is being held and what the expected outcome is. The date must be arranged so that all key persons can attend and their attendance should be confirmed well in advance of the meeting. A list of key topics should be drawn up and these circulated in advance of the meeting.

(ii) Specify and inform

The agenda should not just be a list of topics. A sentence or two should be included to inform members why the topic is being discussed and a brief outline of any problems to be resolved. Members should be reminded perhaps the day before of their commitment to attend the meeting. Full details of the time and place of the meeting should be supplied during the reminder.

(iii) Timing and order of the agenda

A distinction must be made between urgency and importance. Some minor topic might be urgent because a quick decision has to be made but this might be quite insignificant in relation to other important matters such as policy. Just as a time limit has to be set for the meeting so to should a time limit be set for each agenda item. Timing should be set according to importance of the topic, not urgency.

The order of the agenda is most important. Some decisions made, or information gained during the meeting may determine the action to be taken on other agenda items. The agenda should be examined for such connections and arranged/re-arranged in a logical order.

(iv) Structure and control discussion

The skill of group leadership is required for the control, or chairing, of a meeting. A chairman should be elected whose purpose is to structure and control the discussion. The function of the chairman is summarised as follows:

- to unite the group/get rid of any aggression;
- to remain neutral during discussions;
- to keep people to the point;
- to make sure everyone understands what has been said;
- to make sure everyone contributes;
- to protect the weak and control the strong;
- to build a solution based on concensus;
- to summarise conclusion/decisions/action to be taken.

(v) Summarise and Record

At the beginning of the meeting a recorder should be nominated to take the minutes of the meeting. It is the function of the chairman to summarise the main points and decisions to be recorded in the minutes for any follow-up action which is required. A clear statement should be recorded as to:

- who is going to do it;
- what has to be done;
- and by what date.

EXTENSION MEETINGS

When meetings are held in a village it is usually important that social customs are followed. In many places discussions require to be held first with the head of the village whether Chief, Councillor, Mayor or Headman with the content of the agenda discussed. Approval may have to be obtained before a time and a place can be announced.

Whereas meetings are often more successful when there are less than about 30 participants it may be important that all the influential people in a small community are invited/attend. Sometimes custom allows everyone in the village to attend. In such areas it may be well worth trying to arrange with the Chief/Headman that only those directly involved are permitted to come to the meeting. The implications of this may have to be carefully considered before a decision is taken.

Seating Arrangement

Ideally all members of a meeting should be able to maintain eye contact with the leader of the meeting and preferably each other. In practice the bigger the meeting the more difficult it is to achieve the between-member eye contact. When there are audio-visual aids to present such as blackboard, or overhead projector slides. Then a horse shoe arrangement of chairs is best. When there are no audio visual aids then a circle or square (eg round a table) is good. When numbers are large and there is material to present then the best solution may be just to have people seated in rows as in an audience.

Influential Participants

Sometimes the most talkative members of the group are not necessarily the most influential. They may be taking their cues from hints given by a more senior person, eg. from nods or other signals. As an extension officer it is useful to look for such signs and make personal contact with the quieter but more influential participants.

Outcome of Meetings

It is important that some evaluation is made from the participants point of view of the success of a meeting. This may turn out to be quite different from your own personal assessment.

The radio and press may be used to announce the outcome of a meeting. If participants are informed at the beginning of a meeting that this is to be the case they will probably attach a greater significance to the meeting and provide greater motivation to participate.

RESOLVING CONFLICT BETWEEN GROUPS

The principles of conflict resolution are discussed in a separate section. Outlined below is one method of attempting to reduce conflict between two groups with opposing views. The steps which need to be taken are:

- . Get representatives of the groups to meet, say 3 to 4 influential members from each;
- . As chairman you have the important role of being independent, if your Department has an official viewpoint you should get someone else to present it;
- . Try to ensure comfortable, quiet surroundings and encourage a friendly atmosphere;
- . Your introductory comments are very important and people should be introduced face to face. Do not rush through the introductions and make sure you treat everyone equally. The chairman then outlines the situation for a mutually acceptable solution. Any common interests which the two parties share should be emphasised;
- . One party then is allowed to state its case. The chairman should request that they stick to the facts at this stage without expressing opinion. The group should be allowed to state their case in full without interruptions from the other side. They should be encouraged to state their full interest and to spell out their plans;
- . When the first group finishes the chairman should then summarise the main points made by the first group. The second group then follows the steps taken by the first and when finished the chairman summarises their talk;
- . The chairman, encouraging the participation of both groups then should list:
 - (i) points on which both parties agree;
 - (ii) points on which they disagree.

The chairman then guides the two groups to discuss first the topics where there appears greatest chance of compromise as reconciliation. An attempt is then made to explore means of improving understanding on topics where differences are greater and attempting to find more areas of agreement and explore each group's point of view, with some topics people may just have to agree to disagree.

When meetings are closed without full agreement having been reached some form of follow-up action sheet should be formalised and agreed upon. Confirmation should be given in writing, of the outcome of the meeting and of agreements reached and of outstanding issues. Perhaps the groups concerned may have to go back to consult with their members before proceeding. Wherever possible dates should be set for a subsequent meeting and discussion maintained until conflict areas are reduced to a minimum.

Even if full understanding has not been reached a great deal will have been achieved if the groups now understand each other's viewpoint. In some cases no compromise is possible and the solution may require legislation. At other times it may be left to a power play between opposing groups, a situation to be avoided if at all possible.



HOW TO HAVE YOUR IDEAS ACCEPTED

Whatever our level of authority we need skills to be able to persuade others to come to agreement with our view. Some people may have natural abilities to sell their ideas but others have to learn the basic skills.

As fisheries extension workers it is important you are aware of some ways you can persuade others to accept your ideas.

Set out below are 10 guidelines which an extension worker can follow when trying to convey a view to a second person.

RULE ONE: DON'T SPRING SURPRISES

Don't hide your ideas away in secret and produce them unexpectedly. Surprises make people feel nervous.

If your superior is not on good terms with you or is insecure, he may believe that you have been working secretly on something for quite a while, a surprise will make him worry about your motives. He may not feel safe and therefore will try to find fault with your ideas.

Ideas should be made known before they are worked out fully. This will keep the person you are trying to convince in the picture and you may get feedback from him that will help you avoid any major concerns other people may have.

RULE TWO: DON'T OVERDEVELOP YOUR IDEA

If you have thought of every possible details and worked out every aspect then:

- this provides more areas for people to disagree with you and your plan;
- you are demonstrating that you don't need another persons creativity or experience, just their approval.

You should have worked out the details but it is best that you expose your ideas slowly and seek more input and advice. People will accept ideas more freely if they have a say in what is being planned and you can always learn from the other person's experience and constructive feedback.

RULE THREE: BE YOUR OWN CRITIC

Some people fall in love with their ideas so that all they can see are the advantages. Before you formally raise your proposal, you should subject it to an unsympathetic analysis, that is try to find out all the faults before someone else has the chance. Finding possible flaws and correcting them can only make your proposal better.

As much as possible, you need to look at your proposal from the point of view of your future audience. If you can be critical of your idea this will prevent you getting too many unpleasant surprises when you go public.

RULE FOUR: APPEAL TO THEIR SELF INTEREST

Before making your presentation, put yourself in the shoes of the people you are trying to persuade and ask yourself; "What's in it for them? What benefit will this idea give them?"

At the very least your proposal should have no bad consequences for any of the people whose agreement is needed. Examine the proposal for ways it can be adapted to be actually to their advantage. If you can't avoid some negative consequences then you had better identify some accompanying advantage from their point of view or your chances of having the idea accepted are small.

RULE FIVE: DON'T MAKE PEOPLE FEEL FOOLISH

You can win the battle and lose the war by scoring points off someone who can block your proposal. So don't bother trying to win a contest which isn't central to the main issue. Where you must show that someone's view is wrong, do it gently. Don't add to your opponents by being insensitive to other people's self-esteem.

RULE SIX: DON'T BE DEFENSIVE

Even though you have to be careful of other people's feelings, unfortunately they don't have to be careful of yours. Some unfair comments may be made but you should not let this upset you. If you over identify with your proposal then the stakes may be too high for you to listen rationally to what maybe valid criticism.

Remember that your goals are more important than your feelings. Be flexible and willing to bargain in order to get support. Good ideas don't inevitably triumph - they need support, so you must be pragmatic in your approach. You can't do that if you're feeling and acting defensively.

RULE SEVEN: LISTEN TO THE OTHER VIEWS

You need to be a good listener to have your ideas accepted. Make very sure that you listen to what other people have to say about your idea. Often fisheries extension officers tend to expect that fishermen and women should listen to them, without putting forward their own view.

You cannot learn while you are talking. You should accept that others may view your ideas differently and have respect for their opinions. You never know, they may be right in what they say. So learn to listen if you want to sell your ideas.

RULE EIGHT: BE PREPARED TO ACCEPT LESS THAN TOTAL ACCEPTANCE

Some people feel they are degraded when they agree with others that their proposal has faults. They feel it is better not to have the idea accepted than compromise and sell out their integrity. But:

- by accepting a loss you gain a lot of experience;
- you may gain support on certain aspects of your proposal;
- celebrate the gains rather than worry about the parts you lose.

Accept the changes and look more on the achievements of your proposal. People will accept your proposal if you give it to them in a way they see it meeting some of their needs. Although the whole of the original idea is not accepted, it is still your idea and it is still your gain.

RULE NINE: TAKE THE LONG VIEW

Don't feel down hearted and lose hope that you have sold only half of your idea. It is better than missing out completely. Remember:

- people change;
- organisations change;
- no idea or proposal is for ever.

If your idea is not accepted don't think negatively, be positive. Seek to learn from your disappointment. Find out where you went wrong. You will grow in understanding by turning negative experience into positive learning.

RULE TEN: DO NOT FORCE YOUR IDEAS THROUGH

Don't spoil your credibility and integrity by forcing an idea. Take your time, and remember people don't like to buy things they don't want or like.

People are important. Be sensitive, build up genuine relationships with people and show interest in them. The more regard for the people you show the more you will improve your chances to have your ideas accepted.

SELLING YOUR IDEAS TO FISHERMEN AND FISHERWOMEN

It is not easy to sell ideas to others especially adults.

An adult will not take an idea without questioning its relevance to his/her environment and above all considering the benefits he/she can get from the idea.

Set out below are some guidelines which may save you some difficulties.

Simple and understandable

Any idea which is complex, is often difficult to communicate and can keep people away. Keep your ideas short and simple. Expose them to a second person to see how they understand your idea. This will allow you to make adjustments to keep ideas at an understandable level.

Try to discuss your ideas with your fishermen or women to get their general feeling about them. If you have short and simple ideas which have benefits, people will be interested and when people are interested you are more likely to have the idea accepted.

Relevant to the situation

Ideas which have no relevance to a given situation will be ignored. People are sensitive to ideas and will turn if ideas have no relevance to themselves or their work.

You should ask the following questions:

- What is the present situation?
- How is the idea going to help the existing situation?
- Is this a new idea or it is part of the existing work?

Ideas which are relevant are attractive. Study the situation and fit your ideas into it.

Practical and realistic

People look for practical and realistic ideas to help them in their work. Fishermen and women want to know how an idea can be applied before they take an interest. You must analyse the practical aspects of your ideas and make them realistic.

You can do this by asking questions like:

- How can my idea be applied?
- Where in a given situation can my idea be applied?
- What problems are there with carrying out these ideas?

Ideas must be seen to relate to a real problem and help in some way. Ideas which are dreams will not be accepted easily and can be confusing.

Make your ideas practical and realistic.

Profitable

All adults look for rewards in ideas and will be interested in ideas which have something in it for them.

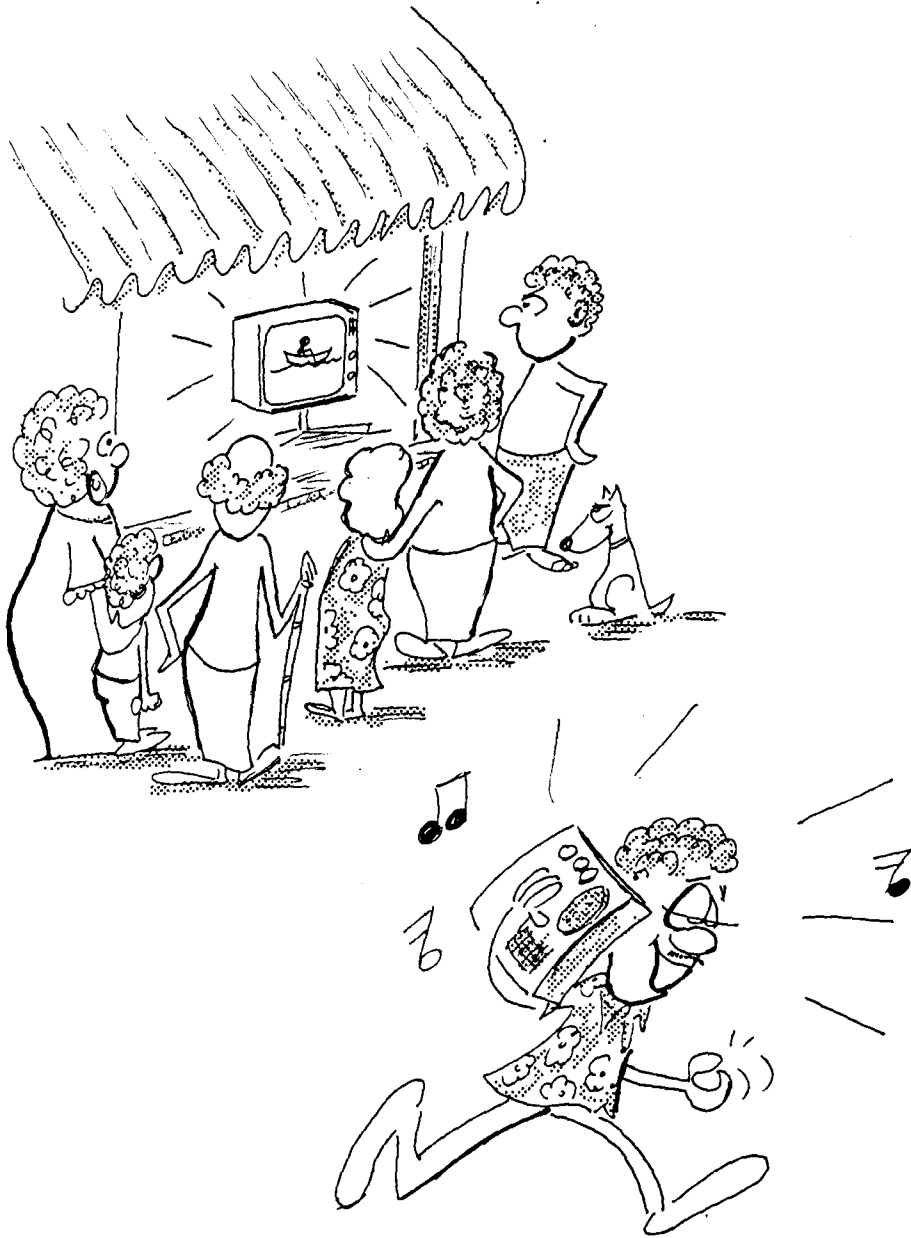
Fishermen and women look for returns either in money or in improved living standards.

Make your ideas realistic in terms of positive returns and benefits. Spell out facts that have direct benefits to the fishermen and women.

IMPORTANT POINTS ABOUT SELLING YOUR IDEAS:

1. Never introduce an idea when people are not ready for it.
2. Consider the benefits carefully.
3. Express ideas in simple forms.
4. Point out practical and realistic facts on the idea.
5. Identify the exact group you hope to persuade.
6. Sell your complex ideas in manageable parts.
7. Involve people at the first stages of development.
8. Expose ideas to people and obtain feedback.
9. Carefully consider the situation of the group you are working with.

Remember there is nothing more frustrating than a good idea that is thrown out the window because of a lack of planning and poor presentation.



MASS COMMUNICATION AND EXTENSION

Mass media has been used in the islands of the Pacific since the late 1960s. Mass media enhances the spread of information by allowing us to read, see and hear about new ideas. Because of its effectiveness people are better informed of new happenings around them.

Mass media includes the use of TV and radio as well as printed material such as posters, pamphlets, books and newspapers. Although the above mentioned are available, their use by fisheries extension officers may be limited.

ELECTRONIC MEDIA

Television

Television is an attractive medium because it provides information through sight and sound channels and it is associated with the entertainment and news industry. It also provides information for larger and wider audiences who may not be able to read. On the other hand, TV is costly and therefore its use is limited especially in countries where the majority of the population have low incomes.

Although its use is limited, there are ways it can be used by an extension officer:-

1. Programmes developed by an extension officer can be televised through TV stations (if there is a TV station within that country).
2. Programmes can be video taped and be used in places or houses where video players and TVs are available.
3. Video programmes can be used at meetings where the extension officer provides the TV monitor and video player.

Radio

Radio can be an effective tool for delivering messages in fisheries extension work. Radio has advantages.

- it's cheap;
- delivers messages quickly;
- reaches a large audience;
- reaches people who cannot read;
- reaches the most remote areas;
- it's portable;
- creates awareness;

- helps the work of the extension officer become better known in the area.

There are limitations to the use of radio:

- usually programmes are not repeated;
- appeals to the ear only;
- can't be questioned or listened to again (unless recorded).

Writing for the Radio

The purpose of the broadcast and the message you wish to leave must be clear. Your subjects should be timely, original, relevant and useful, informative, newsworthy, and promise benefits to your audience. To achieve this you should structure your radio talk.

1. Open with a provocative statement or catchy phrase;
2. A summary sentence to summarise your main point;
3. Main supporting statements;
4. Other supporting statements;
5. Summary and conclusion - leave the listener in no doubt about your main point.

Other Things to Remember

1. Radio is suitable for giving a simple, brief message. It is not a teaching medium so therefore keep material simple. If you have several aspects of a topic you want to develop do so in different sections and make a number of short radio items out of it.
2. Radio appeals only to one of five senses, the sense of hearing. The ear cannot assimilate information as quickly or in such quantities as the eye. So you'll be limited to some extent in the amount of material that you can expect to impart to your listener. For this reason you should never attempt to present a radio item without first being clear in your own mind as to exactly what message you wish to leave with the listener. The audience cannot ask questions, or re-listen to a piece in the same way as they re-read a paragraph of a book.
3. Radio is best used to make listeners aware of subject materials. Because a new interest is awakened by hearing an item on radio, the listener will often seek further information. Radio can only create awareness, it cannot cover the entire subject.
4. A radio listener usually expects to be entertained, not educated, so items should be brief and topical. The extension officer's opportunities to use radio will be limited so consequently he will have to make the most of limited chances.

5. Use simple, direct words. If possible substitute one word for several words.

Example: In view of the fact that = because
A certain amount of = some

At present = now
Conclude = end

PRINT MEDIA IN MASS COMMUNICATION

Print media can be usefully used by extension officers as an important teaching and reporting media because:

- . written material can be kept and re-read;
- . readers can keep journals and written recommendations for later reference;
- . key points of a well written article can be picked out quite easily;
- . printed materials can also be directed to specific audiences more easily.

The following checklist presents the different printed materials commonly used. It outlines their chief characteristics and their impact on an audience.

The checklist also outlines the usefulness of written materials and some of its limitations.

1. **Posters** - these are suitable for giving a single and brief message by catching attention. So it must be particularly attractive within the limits of your budget.

Real coloured photos are commonly used to support the message. This increases the cost of a poster when they are available.

It is wise to approach an expert in graphic arts or photographics to design the right diagram or photo to obtain the most appropriate impact.

2. **Pamphlets, folders and leaflets** - these are best used to make a specific audience aware of a technique or practice by providing them with more detailed information.

These particular printed material will give the whole message and so can stand on their own.

Furthermore, they are particularly useful for selective distribution or mailing to specialise audience.

3. **Newspapers, Newsletters** - these can create awareness of new ideas and to some extent



provide further information. However very detailed information is usually not suitable for this medium. There are many useful hints for extension officers for effective writing for newspapers and to a lesser extent newsletters.

Contents must:

- . immediately attract attention using news, topical angle, human and local interest;
- . be easy to read;
- . deliver a clear message;
- . be relevant to the needs of the reader;
- . include clear, story telling photographs:
- . get the right facts and present them in order of importance, simple, directly and in a positive way;
- . back the facts presented by an authority (best fisherman, research worker) and use good photographs for that purpose.

Style

- . use short words, short sentences and short paragraphs;
- . vary sentences and paragraphs;
- . use appropriate connecting words and phrases to get a smooth flow;
- . write so a reader can understand what he is reading.

Structure of the Story

Structure your stories with all the key information in the first paragraph in a so called "inverted pyramid", the least important one must be in the last paragraph. Check a newspaper article and you will see that:

that the reader can instantly identify the topic and its relevance to him in the first paragraph. See the supporting arguments or body of the story in subsequent paragraphs;

and because editors, publishers and others responsible for controlling the flow of information may cut off last paragraphs to fit in other constraints put the least important facts last.

CHOICE OF METHOD

How do you choose the most effective methods and contents in mass media communication? Use the five stages of the adoption process to assess which media is most suitable.

Awareness - according to the adoption and diffusion process, radio, TV and newspapers are excellent to develop awareness of a particular practice.

Interest - the next step is to provide more detailed information. This can be given by fishermen journal articles and through newsletters directed to fishermen.

Evaluating - that helps to develop and satisfy their interest and assist in preliminary evaluation. This will be done through specifically written material and discussion.

Trial - then when the majority of fishermen are aware of the innovation, news articles should elaborate practical details to reinforce their learning process.

Adoption - newspaper articles in the later stage of the adopting process are necessary as reinforcement and support for those who have adopted.

Newsletters are particularly valuable to reach fishermen living in various outer islands. They can help in building communications networks and speed up distributing processes, particularly where no other media exists.

Check list of Printed Materials

Material	Chief Characteristic	Impact on the Audience	Special Usefulness	Limitations
1. Posters	Large sheet of paper or card. Use pictures and diagrams. Use simple words for explaining and information.	Attract attention of people walking past. Stop and read.	Promote extension campaigns and reinforce educational projects. May stimulate some to gather more information.	Limited effect, can impress one idea or fact on a reader. Need to seek out more information for elsewhere.
2. Pamphlets Folders Leaflets	Hand outs of printed material on single topics to explain the practice and its advantages.	Provides more detailed information on a practice. Can provoke thoughts on trying it out.	Used to complement other parts of an extension campaign like shows, radio or talks. Useful for selective mailing and distribution. Used as a series of related publications to explain in detail some technical information.	Directed to a select audience not usually for general distribution.
3. Newspaper News-letter	Valuable channel for extension information. Newspaper articles can be used to alert and advise of an event, occurrence or practice. To start them thinking.	Goes to a large audience of literate readers.	Quick dissemination of information with some detail on the practice. Can be kept as a reference, can be slanted to a specific audience. Prompt readers to seek out more information.	The editor has a gatekeeper effect and may not publish. Limited impact on an illiterate audience.



VISUAL AIDS FOR FISHERIES EXTENSION OFFICERS

In extension the challenge is to have your ideas understood and put into practice. To do this we need to use all the methods of communication appropriate to the topic.

An audience can understand and remember up to five times as much information when relevant visual aids are used to enhance the spoken word.

Using visual aids during a presentation to an audience can modify attitudes and opinions if they are designed to stimulate or reinforce the message being given. With a change in attitudes or belief can come the motivation for a change in practice.

Effective visual aids can be used to do the following:

- . grab an audience's attention;
- . make the viewer stop, look and remain long enough to comprehend the material;
- . hold the interest of an audience;
- . illustrate the principles/characteristics of the objective;
- . illustrate one point;
- . show the main subject prominently;
- . show the steps necessary in completing a task;
- . show continuous action;
- . develop a story or a lesson in sequence;
- . summarize the main points of a talk;
- . compare changes or show relationships;
- . stimulate immediate and future action.

Before you prepare a visual aid, consider the following factors:

NEED Decide to use a visual aid to communicate a particular message only after considering the alternatives. Would publications, lectures, demonstrations or other techniques communicate your message better?

PURPOSE To be effective your visual aid must convey something the viewer/audience does not know unless it is there to illustrate or reinforce a point.

Decide whether you want the viewer/audience to take a specific action, change an opinion or attitude, or become aware of new information.

SUBJECT Choose a specific subject. A broad subject may be difficult for you to express and for the viewer/audience to comprehend.

AUDIENCE Identify the audience/group so that you can tailor your display accordingly.

Consider these questions.

- . Are you preaching to the converted?
- . Are your viewers familiar with the subject matter or not?
- . What is the average literacy level of your viewers/audience?
- . Will your viewers be predominantly fishermen, consumers or both?
- . Will your audience be a specific class or group, or a complete cross-section.

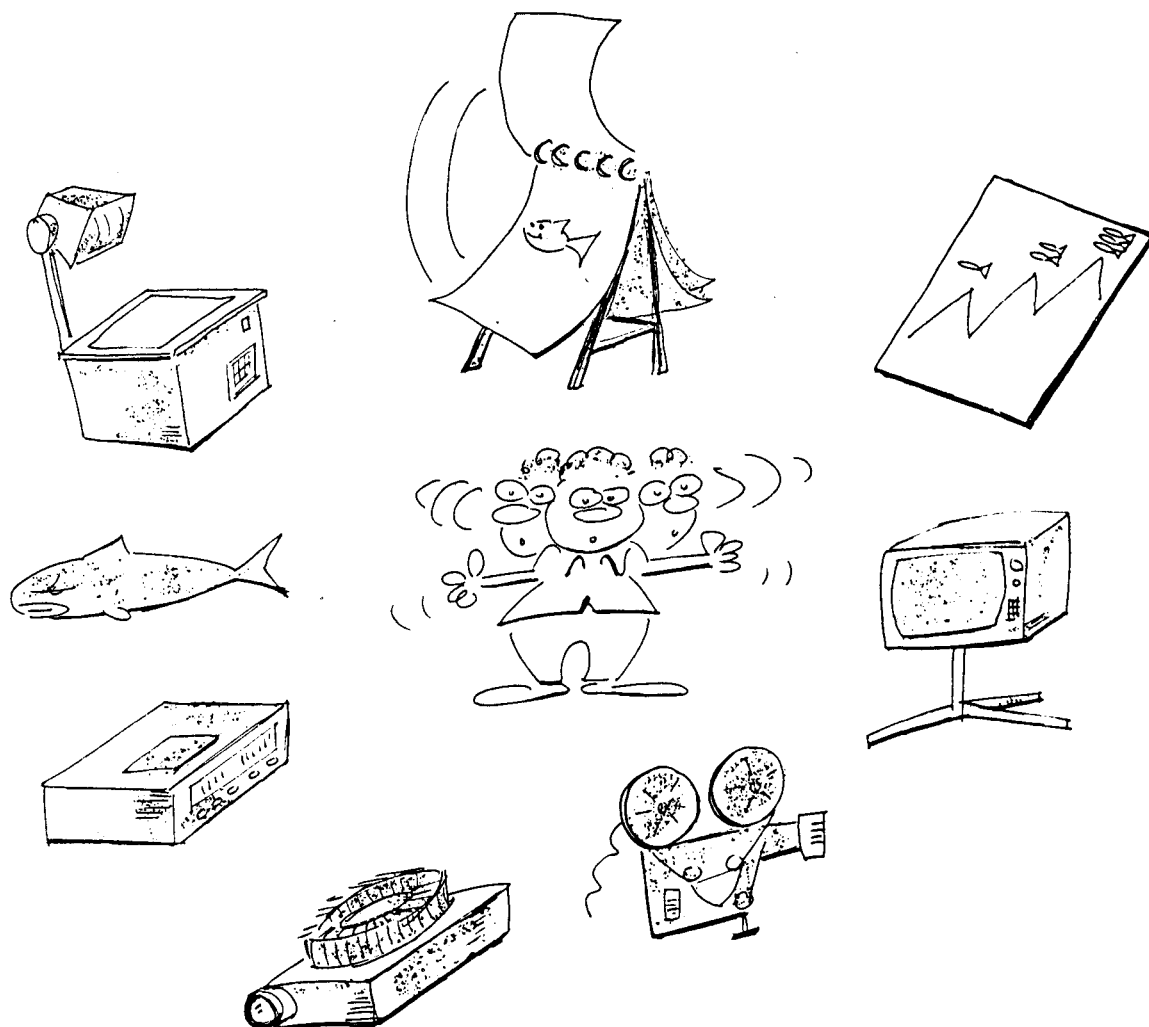
Design your visuals to meet the needs of the people to whom you are talking.

Using Audio-Visual Aids

1. Use an aid which can be seen by all members of your audience. View it critically from a distance and make sure that all words are readable.
2. Make sure all present can see both the speaker and the visual material.
3. Do not present too much material at once.
4. Leave the aid on view for an appropriate length of time. Give time to the audience to assimilate the material you present to them.
5. Do not leave a poster or chart on permanent display for too long. It will lose its effectiveness and may even detract from the value of material displayed at later date.
6. Experiment and test to ensure that the aid is not subject to misinterpretation. This is particularly important with aids of a diagrammatic type depicting movements and action.
7. Face you audience, not your visual aid.
8. Never use an aid which is likely to offend or annoy. It is always useful to get a second opinion on your aid from a person or persons who will not give personal praise.

A visual aid or audio-visual aid is only a tool in the hands of the extension officer. To attempt to make a field day or meeting more interesting merely by adding a few pictures is a technique which is

inadequate and is almost bound to fail. The illustrations must have a purpose. You must first analyse your problem. Only then can you decide upon the best form of aid to use under local conditions. It is hard to better the personal touch of a visual aid prepared to fit exactly the requirements of the local situation. It is also worth remembering that no aid will be of real value unless it is presented with enthusiasm.



VISUAL AIDS METHODS RECOMMENDED FOR USE IN A TRAINING COURSE

Presentation Visuals

Models - With models you can illustrate the characteristics or the principles of the real object when it may not be practical or possible to use the real object. For example when the actual object is too small to be seen an enlarged, model can greatly aid learning, provided you explain that the model is enlarged.

Photographs - A photograph is among the most versatile and effective of the visuals.

Chalkboards - Using a chalkboard you can summarise the main points of a talk; write down key words; sketch diagrams; draw pictures; and develop a story point by point.

Other important presentation visuals that can be used are: paper pads, the flannel board, magnetboards, flash cards, flip books, pull charts and strip charts, charts and graphs, pictographs, combination visuals.

Display - Type Visuals

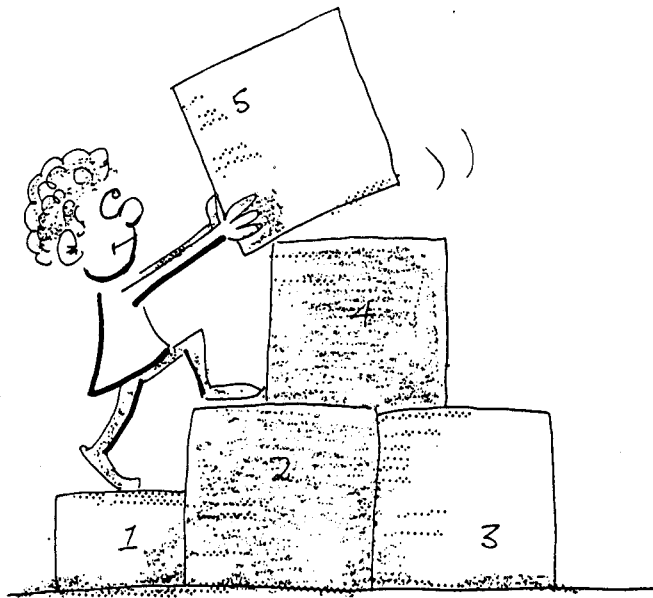
Posters and Bulletin Boards.

Projected Visuals

Motion pictures, slides, flimstrips, overhead projections, opaque projection, single concept loop films.

These types of visuals require equipment and a source of electricity.

The extension officer should be confident when using a visual aid. When you feel that a particular visual aid technique may bring forward your message you must know how to use it. Practice before committing yourself to use it.



EXTENSION PROGRAMME PLANNING

Planning is a system of organising work in advance. Written programme plans have numerous advantages.

- (1) Planning improves efficiency by a better allocation of scarce resources and time.
- (2) If work is not planned, day to day pressure can result in the job becoming your master instead of you being master of the job.
- (3) It provides a basis for evaluating the extension programme.
- (4) A written programme allows for continuity in the event of loss or transfer of personnel.
- (5) It enables newcomers to extension in a particular area to see a concrete plan of action which gives more purpose to their early years of work.

The planning process has five to six steps.

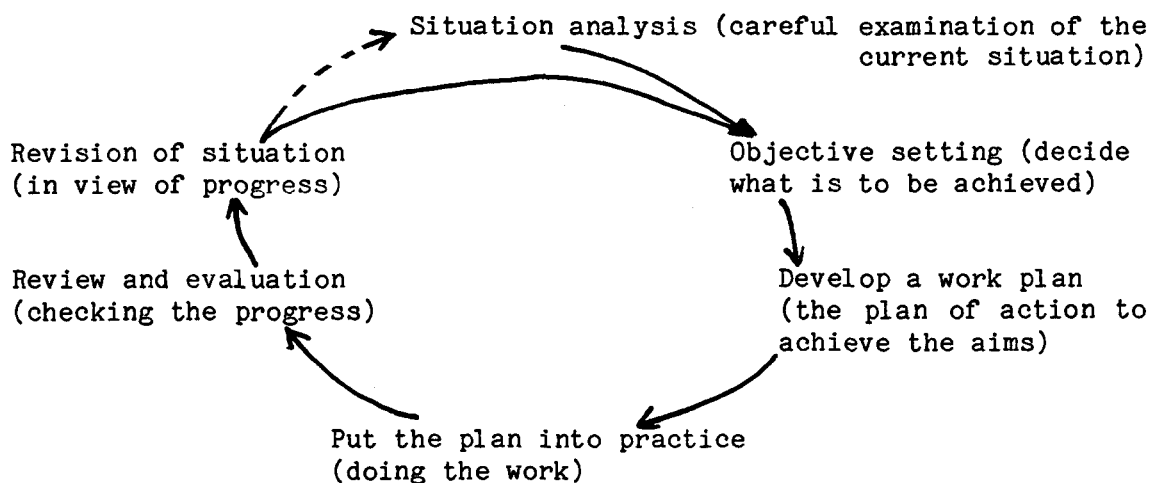


Figure 8 - An Extension Programme Planning Model (after Potter 1967)

Programme planning is a series of steps which are expected to result in a change from a given situation to an improved one.

Programmes are more likely to be successful in bringing about change if they involve the people they are aimed at in both the planning and action stages.

Some basic principles of extension programme planning are listed below and provide a valuable checklist.

- (1) Any extension programme should be based upon careful analysis of factual situations.
- (2) Problems should be selected for action which will meet recognised needs.

- (3) The programme should be comprehensive and include activities of interest to all members of the community and to all levels of society.
- (4) The programme should be flexible in order to meet long term situations, short term changes, and special emergencies.
- (5) It should be educational and be directed toward bringing about improvement in the ability of people to solve their own problems, individually and collectively.
- (6) It should be arrived at democratically through the participation of everyone who has an interest - extension staff, research workers and the clients also.
- (7) Programmes should be oriented to the existing technical, economical and social level of the rural people of the area.

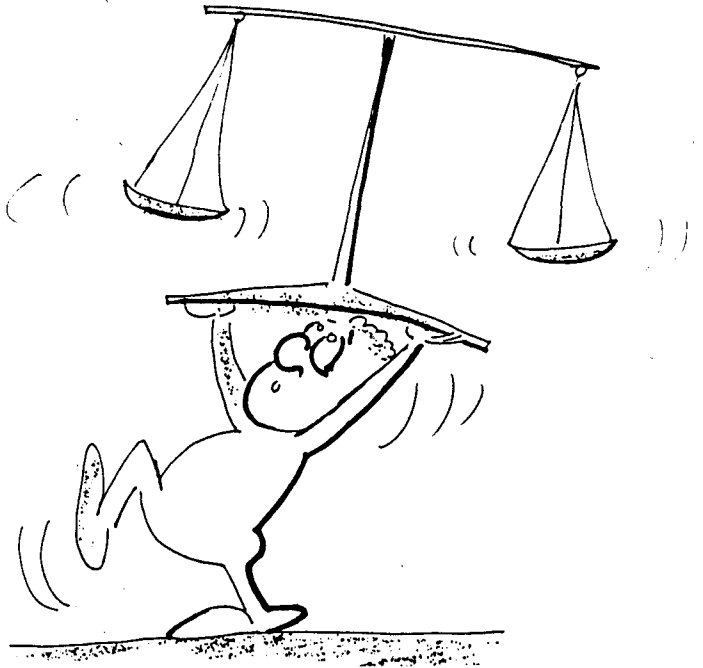


- (8) Objectives of the extension plan should be clearly defined in terms that people understand.

- (9) Programmes should be planned in such specific terms that the objectives can be evaluated periodically.

- (10) The programme should be achievable considering such factors as personnel, finances, time and facilities.
- (11) Extension programmes should be carried out by well trained personnel with effective supervision.
- (12) Use local leadership at both the planning and execution stages of the programme.

Good extension programme planning is a balancing act between the needs of the community and the available resources; between the alternative solutions available and the benefit to the clients; and between the time involved in planning and the time involved in carrying out the plan.



Another model of programme planning has aspects similar to Figure 8.

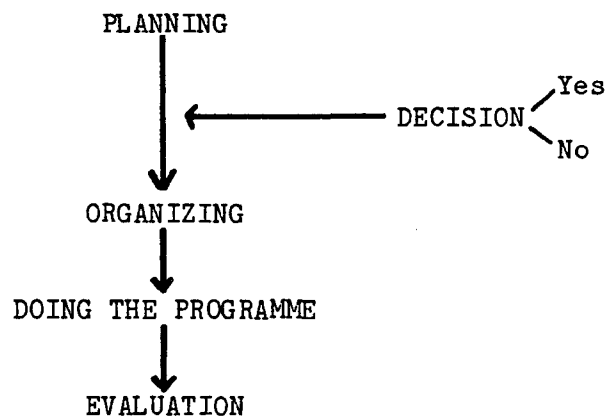


Figure 9 - Stages in Programme Planning

PLANNING

1. Evaluate present situation (problems and opportunities).
2. Do situation analysis and problem selection.
3. Determine extension options.
4. Consider the possible objectives in light of time and other resources which are available.
5. Consider possible solutions.

There should be commitment by involvement of important people in the planning process.

Thorough situation analysis shows the important existing problems. Priorities are placed on problems then the decisions are made as to what is to be done about the problem. All the above requires the contribution of the extension officer, individuals in the district and groups of people in the district.

DEVELOPING OBJECTIVES

A good objective must meet the following criteria:

- (a) Relevant to the needs of the audience, eg. fishermen's needs.
- (b) Directed to a specific audience, eg. number of fishermen in the village.
- (c) Results oriented eg, how many of the number will be changed.
- (d) Specific about the change expected.
- (e) Objective must be achievable and realistic.

The extension officer must not expect the change to take place overnight but more likely through a series of small changes. The objective must also have a time scale.

- (f) Objective must be capable of being measured to get an idea of progress. Two ways to measure progress:
 - (i) the number using the new practice;
 - (ii) the number using the recommended level.

Objectives used in Planning Extension

- (1) Long term/overall objective.

A broad statement of what is to be achieved in the entire programme and should also include the kind of audience, time scale, what is the aim and where it is to happen.

- (2) Short term/specific objectives.

This should contain how the overall objective is to be obtained and specific stages of the extension programme.

- (3) Work objectives/action plans.

Methods used by the extension officer to get the message across to the fishermen. A plan of work designed to achieve the specific and overall objectives.

ORGANISING

This is the plan that must be carried out by the extension officer.

Organising Work Plan Stage

Ask and answer the following questions:

- who does the work associated with the work plans?
- who is the target audience?
- how will the work be done?
- what are the activities in the work plan?
- when will it be done by?
- where - which locality?
- why - what is the objective of doing the work?

Three important features of the work plan are:

- (1) Methods
- (2) Process of evaluation
- (3) Review of the situation.

Features of a Work Plan

Questions of What? Where? Who? When? How? For Whom? are used for building up a work plan. The work plan must reflect priorities mentioned earlier in the situation analysis.

Summary

The whole process, from situation analysis through problem statements, developing objectives to work planning and review is continuous. If objectives are clear to the officer then there will be no problem in knowing what is to be done.

EVALUATION

To evaluate a programme one must consider the characteristics of a particular programme. These include:

- (a) objective of the programme;
- (b) methods of working the programme; and
- (c) the result of the programme.

In evaluating the objectives of the programme, we look at the needs analysis, cost benefits and the priority of the objective and how resources will be used in the most fruitful and effective way.

Methods of the programme are evaluated to increase effectiveness of the programme.

Results are also evaluated although it may take a long time to get them. Results give a good idea as to whether the programme is successful or not.

The process of evaluation includes:

- a) a clear statement of what activity or plan is being evaluated;
- b) the reason for conducting the evaluation;
- c) the criteria being used to judge success;
- d) the evidence compared to the criteria - judging the degree of success.
- e) feedback from other sources on the success of the activity or plan.

Local area (district) evaluation must be directed at meeting the needs of the extension officer so that he may assess and develop his approach to his job.

Evaluating Objectives



Ask questions such as, "is this the correct objective in this circumstance? is this objective measurable? do these objectives meet the criteria of good objectives?"

If the answer to any question is no - then the situation may well need to be thought through again.

Evaluating Methods

The most apparent evaluation of methods is the degree of objectivity in relation to cost. The following guidelines are adaptable to varying degrees of objectivity:

- (1) Does the method suit the objective?
- (2) Does the method suit the audience?
- (3) Are the methods within the resources available and do they make best use of the resources available?
- (4) Do the methods suit individual teaching or group teaching: what is the relationship between objective and audience.
- (5) Are these the most economical methods?
- (6) Are we using the methods well?
- (7) Is our knowledge about the use and effectiveness of the various methods being applied?

Evaluating Results

Where a good objective has been set it is often quite easy to evaluate the results of an extension programme.

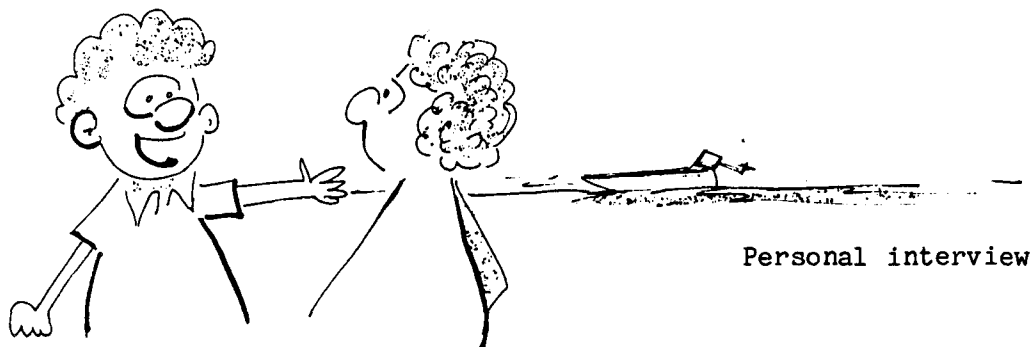
For example: the objective of the programme is to have 10 of the 100 fishermen in the village use the new long line technique by the end of 1988.

It is easy to go to the village and check how many are using the technique.

However, evaluation of results is sometimes not possible because a) it may be a long time before results are obtained or b) it may be too expensive to conduct the comprehensive evaluation needed.

These techniques can be used when collecting data to evaluate results of extension plans.

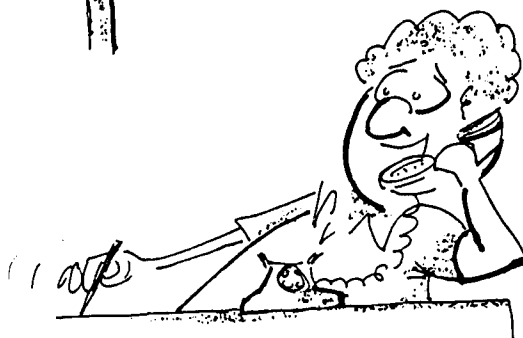
SURVEYS



Personal interview



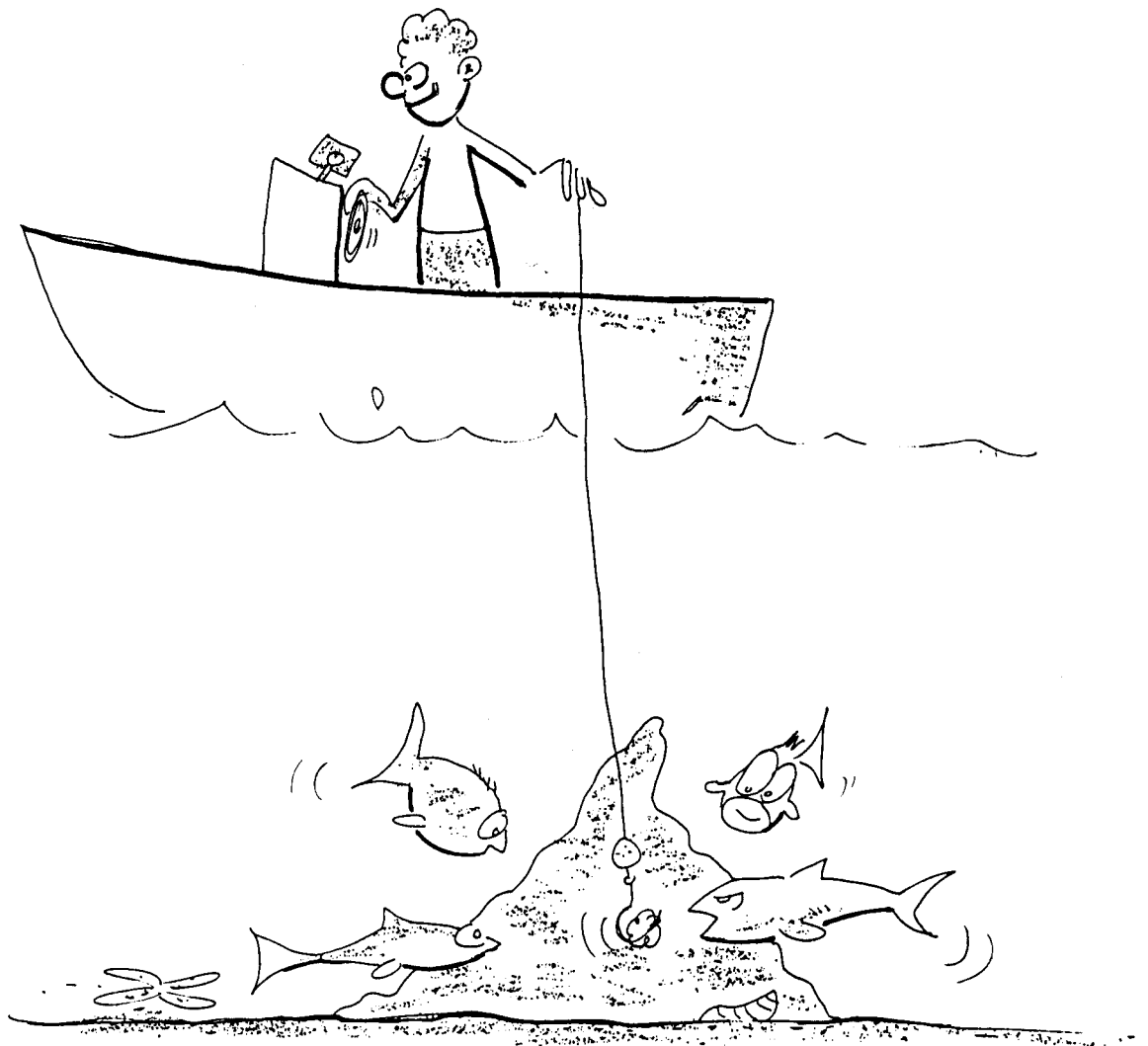
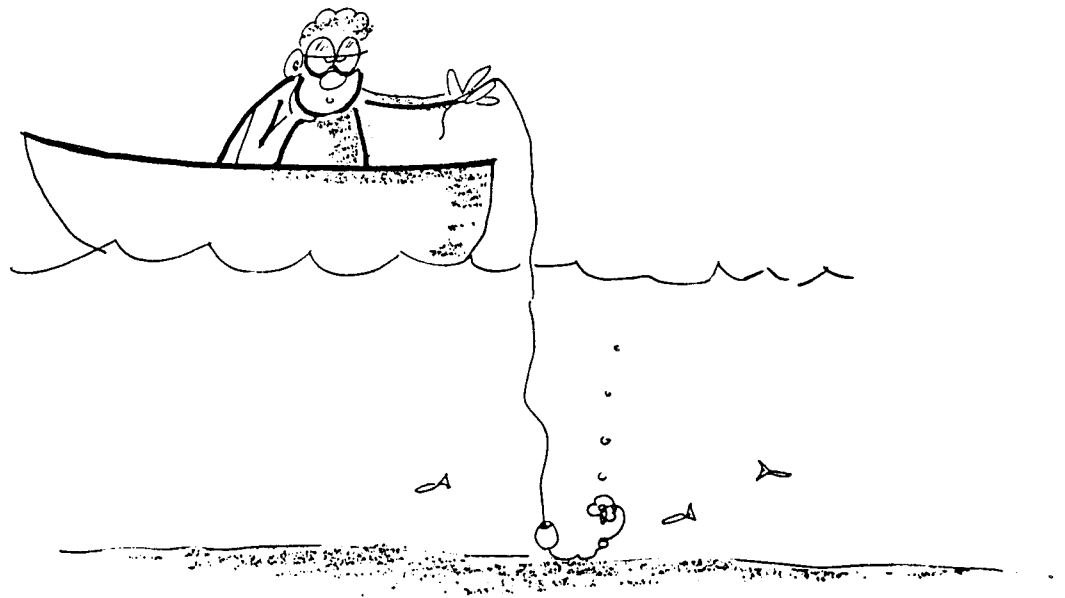
Mail Surveys



Telephone Surveys

However, it may not be possible to conduct any of these sorts of survey. Information can be gained from other sources:

1. Existing records and statistics;
2. Your own records;
3. Observation;
4. Direct responses from fishermen;
5. Direct measures of performance (eg weight of fish sold at fish markets).



PROBLEM SOLVING

The word "problem" is defined "as a question proposed for solution or consideration".

Too often a problem is realised only when things start to go wrong. No-one is aware that the problem exists until something fails or the problem is brought to their attention.

However, when this happens what often appears to be the problem is actually only a SYMPTOM of the real problem. To successfully solve a problem, the fisheries extension worker must be able to tell the difference between a symptom of a problem and the problem itself.

A symptom is best described as a noticeable condition caused by the problem. Symptoms may take a number of forms:

- (a) Work or progress is slow.
- (b) Fishing gear and equipment deteriorates before the usual time.
- (c) Delays happen in adopting new fishing techniques.
- (d) Loss of profits from fishing operations.
- (e) Fishermen look for other jobs/occupation.

These are just a few examples of symptoms which a fisheries extension worker can analyse for the causes and identify the problems more precisely.

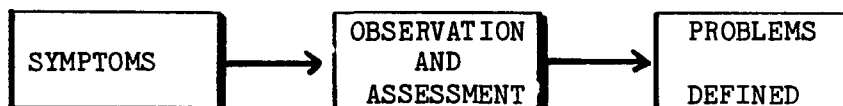
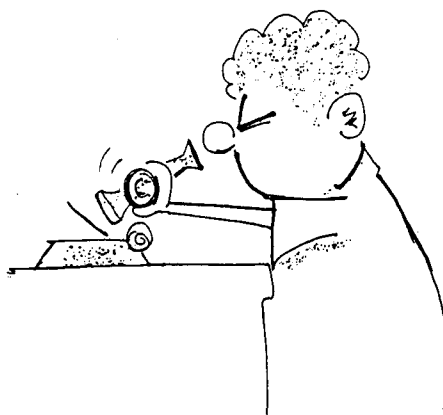


Figure 10 - Process of Problem Definition

As extension workers it is our responsibility to work with fishermen to:

- (a) Find out the difficulties and problems that they face;
- (b) Help them define their problems;
- (c) Help them find practical ways of overcoming their problems;
- (d) Help them plan their environment;
- (e) Help them put their plans into action;
- (f) Offer and provide advising services in whatever means and ways are most appropriate to the situation.

Before attempting to solve a problem the extension worker must know the actual problem. Then seek out and consider all possible solutions. As well he must have, or be able to acquire the necessary skills and determination to overcome the problem.



The following skills may be required:

- (a) Interviewing skills; for collecting information, giving information, and changing the way others act.
- (b) Problem solving skills; how to find the real cause of the problem, find solutions and put them into action.
- (c) Team building skills; with your own staff, with fishermen, or within village communities.
- (d) Demonstration skills; to teach others how to do specific tasks.
- (e) Group discussion skills; to get groups of people to discuss matters well and to make decisions.
- (f) Planning skills; to help you and other extension workers plan your work and to help teach fishermen some planning skills.
- (g) Evaluation skills; to help you judge how things are going and help keep everything properly controlled.
- (h) Communication skills; to help convey messages effectively.

Understanding a problem depends on the availability of information from a particular locality eg. a fishing village.

Information can be gathered by:

- (a) Observing the area and recording what is seen, eg. number of canoes, outboard motors etc.
- (b) Talking to or interviewing people, either in the field, at the beach or in the office.
- (c) Conducting a survey of fishermen,
- (d) Reading a report by other people on the area.
- (e) Talking with people who have worked in the area before.

A successful extension officer spends most of this time looking for information to assist him overcome the fishermen's problems.

A process called problem census is a method which can be used to establish the most important problems with a group of fishermen.

Problems are listed and this encourages fishermen to talk about their own problems.

The following steps of problem listing could be followed:

- (a) The extension officer must find out who are the most influential people in the area.
- (b) The extension officer with the influential's assistance should organise a meeting with local fishing groups to discuss their problems with the extension officer as a facilitator at this meeting.
- (c)
 1. The influential person introduces the extension officer who then explains the purpose of the meeting.
 2. The extension officer makes clear the purpose of his presence and asks the group to discuss the key question - "What are the main problems facing you in the next 5 years?"
 3. The extension officer must then split the main group into sub-groups, so that everyone has the chance to express their views and problems more easily and more clearly.
- (d) Each sub-group must select a chairman to lead the discussion and a spokesman/recorder to report back the result of discussions to the main group.
- (e) Each sub-group reports their problems back to the main group.
- (f) The meeting is asked to decide which problems are the most pressing for the whole group.

All the problems listed may not be able to be dealt with by the extension officer, some may be well beyond his control. But each should have some action decided, even if it is only to pass the meeting's thoughts on to the appropriate agency.

For each problem that is within his area of influence and work the extension officer should then take a problem analysis approach.

Problem Analysis

In most cases people (fishermen) know their own problems but they only tell us in a "vague or general way".

As an extension worker, you have to work out clearly "what the problem really is".

A problem can be defined by asking questions.

There are two steps in analysing a problem:

Step A: What is the Problem?

Start a problem analysis by asking why?

"Why is this a problem to you?"

When you can no longer answer this question you have located an unknown cause of the problem.

For example - a group of fishermen who earn a cash income from fishing are complaining because they are not earning enough money.

Q. Why?

A. Because they do not catch a lot of fish. (Symptom)

Q. Why?

A. Because they can't go out further into outer reef to fish.
(Symptom)

Q. Why?

A. We don't know. (Problem)

Now you have a problem to analyse. The extension officer should then take steps to define the problem more clearly.

Step B. Define the problem clearly.

In an attempt to clearly define the problem ask as many questions as you can and try to get answers which help to quantify the problem. Ask questions about:

What? What sort of fish don't they catch now?

What? What price do you get for your fish now?

When? When is it that fish are in short supply?

When? When do you go fishing?

Where? Where do you sell your fish?

Where? Where are fish being caught now? Previously?

How much? How big are your catches now? Previously?

How much? How much time do you spend fishing?

Discuss with other extension officers what type of questions you need to ask under this headings to give you sufficient information about the problem.

Ask the fishermen, economist, researchers, and fish buyers about the information you require to clearly define the problem.



Step C. Look for alternative solutions

Once a problem is defined it is easier to seek possible ways to solve the problem.

Successful problem solving depends partly on finding as many alternative solutions as possible. This can be achieved by asking for ideas from many people. Ask anyone who is familiar with the area, especially fishermen, extension officers, specialist advisory officers.

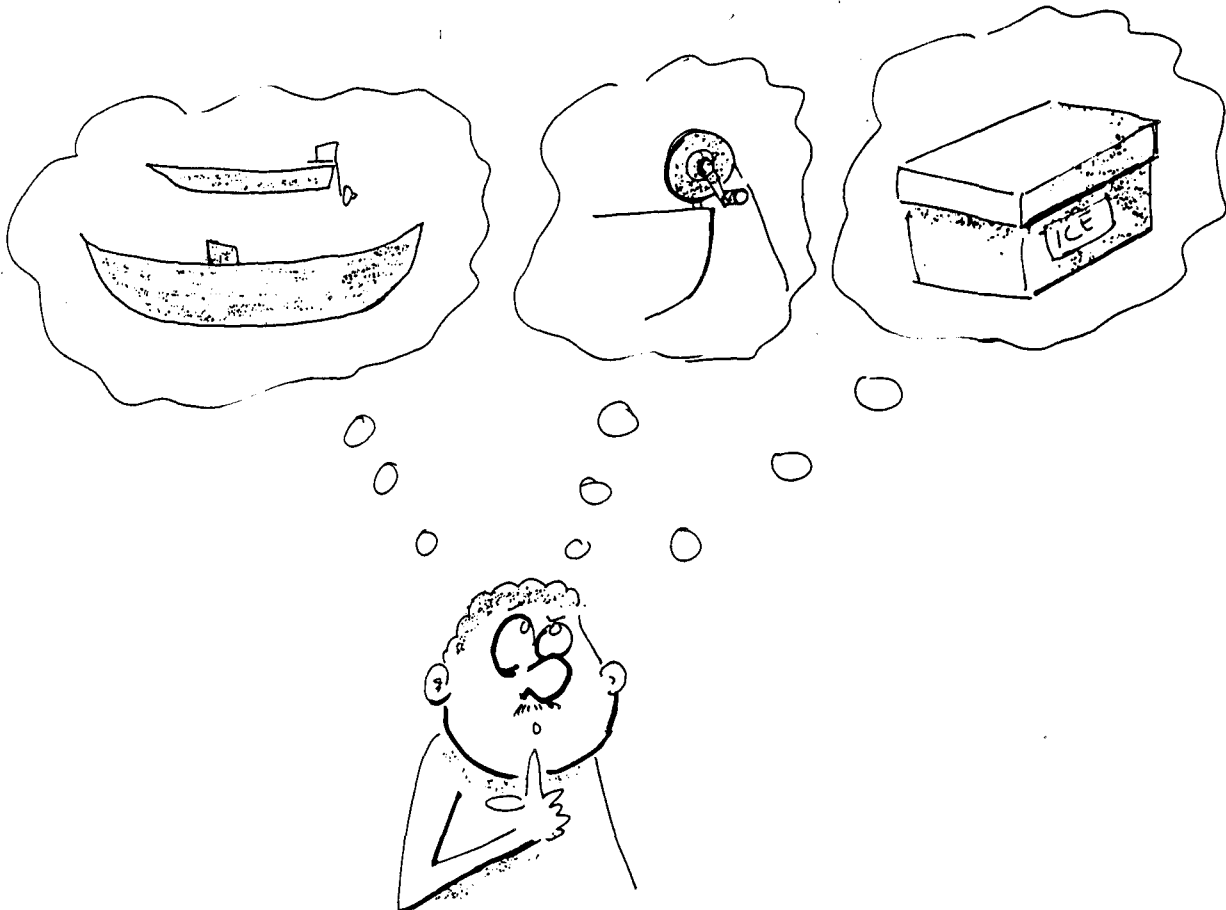
When looking for ideas the most important people to go to are the fishermen. You will find that they have a lot of knowledge about fishing. Instead of giving your solutions you should ask questions aimed at helping the fishermen to discover alternatives for themselves.

Once the fishermen have fully explored their own knowledge you can offer your or other people's alternatives for their consideration.

Then prepare a list of all the possible alternatives.

Remember the aim is to get the fishermen to solve their problems and also to develop their own confidence in logical problem solving.

Test the alternative



To find out which of the possible alternatives will be best the fishermen and extension officer should now test them. They will not have to try out every idea because some will obviously be less useful than others. Which ideas will be the most likely ones to use can be judged by applying the following criteria or standards to each alternative.

- (a) How relevant is the solution to the fishermen's needs?
- (b) How practical is the solution for the fishermen given their available resources and skill. For example, one way to improve the fish harvest is to introduce a new engine. Would this be practical for the size of the boats used? Would it be practical given the available skills in maintaining machinery? Would this be economic with this size of harvest?
- (c) What are the likely benefits for those fishermen who make the change?
- (d) What are the likely cost for those fishermen who make the change? for example, to fish in deeper waters (outside the reef) requires a long time out at sea. This means that the fishermen can no longer take part in village activities.
- (e) What are government policies? Policies may rule out some alternatives.
- (f) What are the views of specialist officers on the alternatives? Do they see them as technically and economically viable?
- (g) How available are the resources that each of the alternatives will require?
- (h) How much time will each alternative take to carry out?
- (i) How much information is available from research about each of the alternatives?

The most suitable solutions will now be clear to both fishermen and extension officer. The choice of which to use is now a decision which has to be made.

Step D. Decision analysis

Both at work and in private lives everyone has to make decisions.

Choice is made between doing different things and in allocating resources such as time, money or staff. Often new ways of doing things are tried because the way they are done now is not the best.

Usually past experience helps in making decisions. Sometimes this is a help but it can also limit decisions being made. The way things were done in the past makes it difficult to see new ways to do things.

It is possible to make better decisions which will give more satisfaction and help to achieve the things needed.

Decide who should make the decision

- (a) Is the decision one that affects only you?
- (b) Does it affect you and some other people?
- (c) Does it only affect others and not yourself?

In extension field officers often make decisions which affect other people without involving these people. This may lead to dissatisfaction and poor decisions.

As extension workers it is essential to involve fishermen, researchers, economists etc. A lot of resources may be used to overcome a particular problem and these may be located from within the previous groups.

Decision Analysis

If during the steps previously discussed one alternative solution is clearly the best then the decision about what to do is easy.

You maybe quite clear on what you want to do but you still have to choose between a number of different ways of obtaining your goal. The following steps called "decision analysis" can be useful to help make these sort of decisions.

(a) The Musts

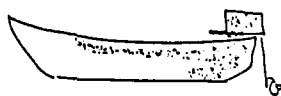
Set out on a paper what you really "must" have in your solution. This can be done by asking questions; why? what? where? when? and how?

These will help identify what must be with the new idea eg. a boat to fish outside the reef must be over 7 metres, must have an engine and must be seaworthy.

It is essential that you do not have too many items on this list. You should have at least 2-3 items under your "must" column.

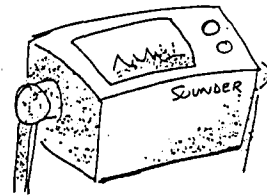
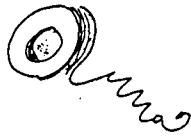
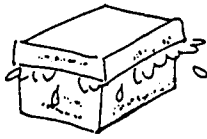
Most people find it difficult to decide between "must" and "wants". You can develop this by learning to ask why? and reject items which are not vital.

Musts



(b) The Wants

Set out a list of all the things you want (would like) to have in a new idea. For example you want the boat to have an echo sounder, an ice box, a spare fishing reel, a compass, to be blue and to have a sail.

**(c) Weigh the Wants**

Some of these wants are more important to you than others. List the "Wants" in their order of importance eg. icebox (1), spare reel (2), compass (3), echo sounder (4), blue colour (5).

Then give each a weight on how important it is to you.

icebox	-	very important	- 8 (out of 10)
spare reel	-	important	- 6 (" ")
compass	-	quite important	- 5 (" ")
echo sounder	-	quite important	- 5 (" ")
blue colour	-	not very important	- 1 (out of 10)

(d) Select alternatives according to Musts

Select all the alternative solutions which meet your must criteria.

(e) Score these alternatives according to Wants

Each alternative may or may not have the things you listed under Wants

Give each alternative an appropriate score for each Want it has. The alternatives with the highest score is the alternative to use.

A final check that it has the Musts and your decision is made.

eg. Alternative 1.

Has echo sounder, compass and is blue.

Score: 5 for echo sounder

5 for compass

1 for blue colour

Total 11 (and it meets all Must criteria)

Alternative 2.

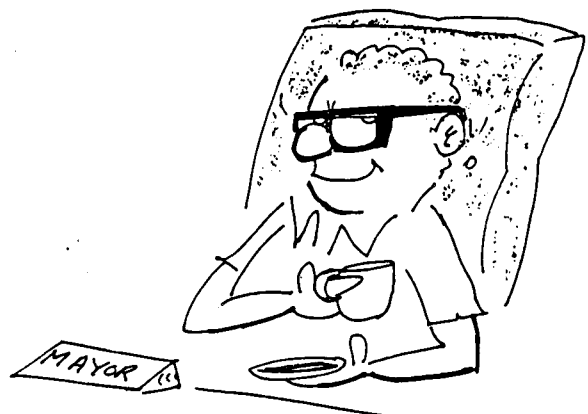
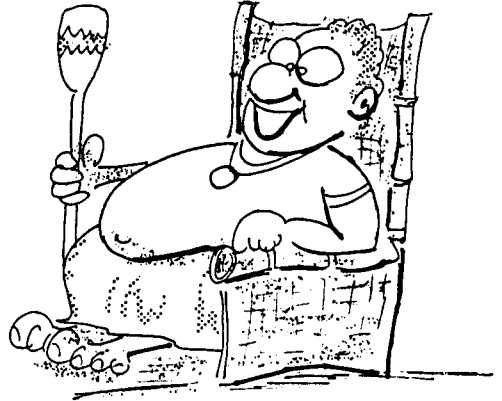
Has icebox and compass

Score: 8 for icebox

5 for compass

Total 13 (and it meets all Must criteria)

Alternative 2 is the solution to use.



DATA COLLECTION - SURVEYS

There are many ways of collecting information before there is any need to do a survey. Some of these have been mentioned in previous chapters.

Observations

An extension officer should make time to observe the area and people he is working with. He should observe how people go about their fishing activities, where they go fishing, what types of fishing methods are used, the types of vessels used for fishing and other factors relating to the fishing industry which are of interest.

Reading Reports

Reports by other people working in the area can provide much of the basic detail needed by extension officers. Checking through these and the officers own reports will provide information which can be used in assessing the situation.

Talking with People

People who have worked in the area for a long time such as missionaries, other extension workers and research people are a valuable source of information. Talk to these people about the problems facing the fishing communities. Also talk to the fishermen.

Conducting Surveys of the Fishermen

Surveys will provide exact data on specific issues. The next section deals with the actual techniques of surveys suggested for use by extension officers.

SURVEYS

Why do a Survey?

The purpose of a survey is to provide information. When conducting a survey our responsibility, as an extension officer, is to ensure we get accurate information in the most efficient way.

The common use of survey information is as a basis for planning. When designing a survey and deciding which method will be most appropriate, it is essential to follow a well developed plan in a "step by step sequence". These steps include estimating the time required for each step of the survey.

The following step-by-step plan is a useful guide to use:

1. Draft the questionnaire and interview guide.
2. Pre-test the questionnaire to check the suitability of the wording of the questions and proposed response categories.

3. Revise the questionnaire and print copies for the pilot survey.
4. Select interviewers and train if required.
5. Conduct a pilot survey.
6. Second revision of the questionnaire as a result of the pilot survey.
7. Conduct the full survey.
8. Analyse the data.
9. Write the report.

1. Drafting the Questionnaire and Interview Guide

This involves the following:

- selecting the topics or content areas;
- selecting the general approach to the people to be interviewed;
- deciding the sequence of the topics;
- deciding the format and layout of the questionnaire or interview schedule;
- deciding how to conduct pre-testing.

The topics to be covered will be determined by the objectives you have already specified. Keep referring to the objectives when developing the questions to ensure that you gather only useful and relevant information.

The sequence of topics should be decided. The actual questions should also be drafted. The wording used is very important. Two major rules should be remembered:

(i) Be clear:

- use familiar words, phrases and style;
- use simple words and simple straight forward questions;
- be specific;
- ask concise questions that cannot result in answers open to different interpretation;
- be precise and not vague;
- keep it short.

(ii) Avoid bias:

- avoid bias and leading questions;
- do not make presumptions;
- be realistic

Questions to Use in a Survey

(i) Open or Open Ended Questions

Open ended questions are most often used in personnel interviews where the respondent is free to answer as he likes. One problem with this type of question is that it may give such variety of responses that the job of classifying and analysing is both time consuming and difficult.

Example:

Why did you purchase an aluminum boat instead of a fiberglass type?

(ii) Closed Questions

These are more simple questions designed to get answers such as yes/no, agree/disagree or approve/disapprove.

Example:

Have you bought an aluminum boat? Yes ☐ No ☐

In this example only a yes or no response is possible. However many yes/no questions should and do allow for a third response such as "no opinion", "not sure" or don't know".

Example:

In an aluminum boat better at sea than a fiberglass type?

Agree ☐ Not sure ☐ Disagree ☐

Alternatively, a rating of the strength of feelings could be obtained using the following response categories:

☐ ☐ ☐ ☐ ☐
Strongly agree Agree Not sure Disagree Strongly disagree

(iii) Multiple Choice Questions

Multiple choice questions are used when there can be several responses to a question. It is often difficult to construct multiple choice questions because all possible answers must be included.

Example:

How did you learn that an aluminum boat is better than the fiberglass type?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
From the Company or supplier	From a fisherman	From the extension officer	On the radio	Other source

The category "other", together with an open-ended question, "please specify what source", is often used to identify other sources particularly during the pre-testing stage.

The respondent could also be asked to "rank" the source in terms of the "information" he received from each using the following scale:

1	2	3	4	5
Very good informative	Good	OK	Not so good	Poor

When using ranking or rating scales in questionnaires bias due to "response set" can occur if the favourable or positive response always come first. In this situation, the respondent may automatically agree or disagree without properly considering each item. This can be avoided by randomly mixing the sequence so that "yes" sometimes means agreement and sometimes disagreement.

iii) Pre-coded questions

In a personal interview, open-ended question can also be pre-coded into response categories.

Example:

Why did you purchase the aluminum boat instead of the fiberglass type?

Cheaper	<input checked="" type="checkbox"/>
More seaworthy	<input type="checkbox"/>
Better design	<input type="checkbox"/>

The interviewer can enter the answers given into a pre-coded list of answers. Because the respondent does not see this, his answers are not influenced by the specified categories.

2. Pre-testing the Questionnaire

This is very important stage in developing the questionnaire or interview schedule. You can do it in two stages:

- (i) Try the questions on experts, colleagues, friends and acquaintances; and then
- (ii) Test them on a small sample of people who are similar to those in your survey population.

From the pre-test you should obtain the following information:

- . How long it takes to fill out the questionnaire.
- . Whether the questions are in a logical sequence.
- . Whether the wording used is suitable.
- . Whether ample space is provided for answers to open-ended questions.
- . Whether adequate categories are provided for all possible answers to pre-coded questions.

The questionnaire is then revised and printed for a pilot survey.

On the basis of the information obtained during the pre-test, preparation should be made for the pilot study or trial run. In large surveys you need to train interviewers to practice questioning so that they can be familiar with the questions.

3. First Revision

The survey is now revised and printed for the pilot survey.

4. Interviewer Training

Interviewers are selected and trained in interviewing techniques. Two of these techniques are probing and prompting.

In a personal interview, after recording the answers given, the interviewer can probe for further information by asking:

"Any other reasons?" or, "Is there anything else?" or, "Can you elaborate?"

Prompting is done either by reading out a list of possible answers or by showing the check list to the respondent or fishermen. Prompting can also be used after an open-ended question. The order of possible answers on any check list may introduce bias as research has shown that people tend to most often recall the first (primacy) and last (recency) items on the list.

One method to remove this bias is to write each possible answer on a card.

The total deck of cards can be shuffled and randomly presented to the respondent.

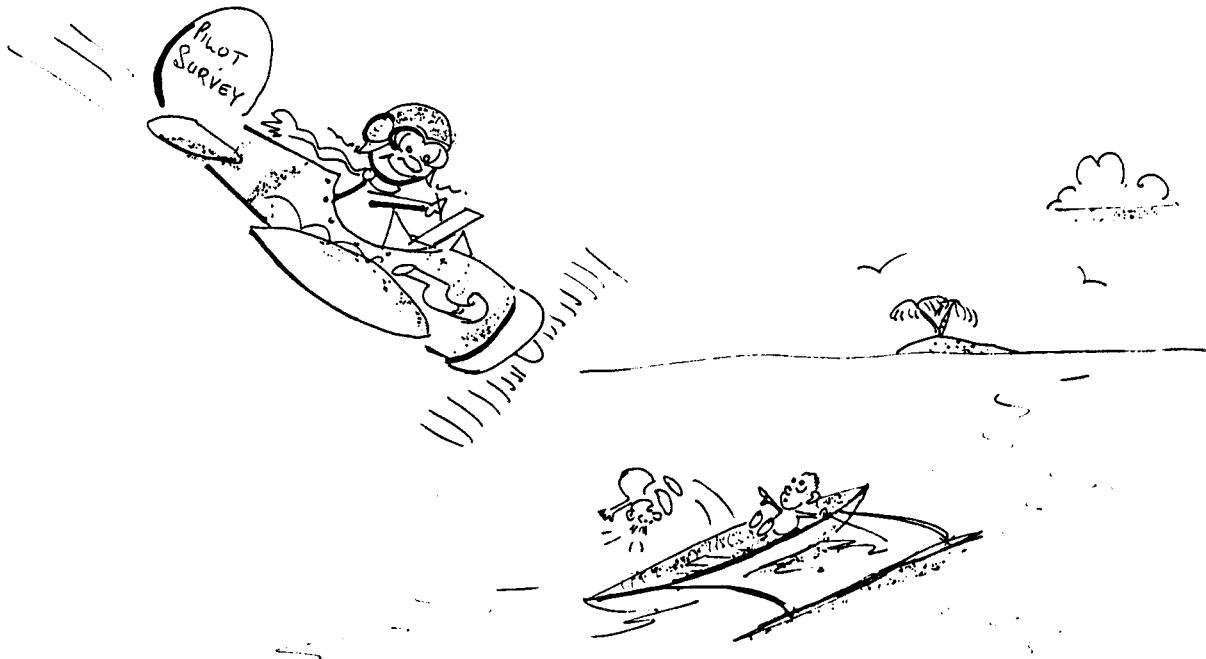
To ensure a standardised approach general instructions should be printed and explained in briefing sessions. They should include rules such as:

- reading questions clearly;
- proceeding at a suitable pace;
- listening carefully;
- not interpreting;
- appropriate dress;
- wearing identifying badges.

Instructions contained in the body of the questionnaire should be printed in capitals or bracketed to distinguish them from the questions.

5. Pilot Survey

This is intended as a strict test of the survey design and the questionnaire or interview schedule. A standard procedure of sampling and data must be used.



It is not always possible to do a pilot survey. However with a large survey it should be done. Try to select participants as close as possible to the population you are going to survey.

The pilot survey is used to clarify:

- . the adequacy of the sampling frame from which the sampling will be selected;

- . the variability (with regards to the subject under investigation) within the population to be surveyed;
- . the non-response rate to be expected;
- . the suitability of the method of collecting data;
- . the efficiency of instructions and briefing of interviews;
- . the adequacy of codes chosen for pre-coded questions;
- . the probable cost and duration of the main survey;
- . the efficiency of organisation in the field and the office and the communication between the two.

People for the pilot survey must be selected in accordance with the proposed sampling procedure and questions must be asked in exactly the manner prescribed for the survey.

6. Second Revision

If any problems appear during the pilot survey changes can be made to overcome them. If the procedure was thoroughly pre-tested only minor alterations should be necessary. Some questions may have been misunderstood or skipped or interviewers may report that they had difficulties with certain items. These would be changed at this stage.

7. The Survey

The data is then collected from the sample of the population or the whole population.

8. Analyse the Data.

The data will now be collated and answers placed into categories. You should have consulted a statistician during your schedule of work and therefore analysis should be straightforward. The major area is the interpretation of results which will to some extent be based on your or your work groups experience as well as the data collected.



9. Write the Report.

The report is very important and should be written in a step by step approach. The report should have the following content and layout:-

Title page - Title, author, institution and date.
 Abstract
 Acknowledgements
 Contents
 Lists of tables/figures/appendices
 Introduction - why the survey was conducted

Methods - how the survey was conducted and analysed

Results - what the survey discovered

Discussion - interpretation of results

Recommendations - specific recommendations drawn from the results

Conclusions - summary of the whole report

Appendices - include a copy of the questionnaire

Keep the report simple and easy to follow and as short as is consistent with the data collected. The abstract and recommendations are particularly important to make absolutely clear, they are often the only parts of a report which are read.

Like all documents you have to capture attention of your reader and make them want to read the report.