

## UNIT - 4

# MANAGING RESISTANCE TO CHANGE

### Objectives:

After completing the Unit you should be able to :

- appreciate the positive role of resistance
- understand the main sources of resistance
- plan action to manage some source.

### Structure :

- 4.1 Introduction
- 4.2 A Positive Approach to Resistance
- 4.3 The Language Resistance
- 4.4 Sources of Resistance
- 4.5 Managing Resistance
- 4.6 Summary
- 4.7 Self-Assessment Test / Questions
- 4.8 Further Readings

## 4.1 INTRODUCTION

Introduction of change is a highly complex process. The uncertainties caused by the expected change and inequilibrium, as a consequence of changes, sometimes results in resistance to change. The resistance may result in decline in Production, increase in rates of turnover, absenteeism, strikes and so on. Resistance to change arises from individual's problems rather than technical problems of change.

In order to reduce the resistance to change, attempts should be made to make them understand why that particular change is needed and how helpful it will be for the organisation.

## 4.2 A POSITIVE APPROACH TO RESISTANCE

Resistance has usually been seen in negative terms. The proponents of a change are unhappy with resistance shown by some persons or groups. The general experience has been that in many cases resistance plays a positive role. If individuals and groups had not resisted some changes like urbanisation of some rural or forest areas, or construction of roads which disturbed ecological balance and so on, we would have been poorer in our ecological heritage. In the flush of enthusiasm, the proponents of a change do not see some negative (and often unintended)

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consequences of change. Resistance help to bring some of these to their notice. Resistance also brings to the notice of the planners the likely difficulties in the implementation of the change. So, resistance at least gives warning which if needed can lead to better implementation of change.

Resistance to change is like dissent. The value of dissent is to stimulate the individuals and the group to consider many factors they may otherwise ignore. It also helps to generate alternatives. Resistance may bring to the attention of those involved in introducing change factors that are likely to disrupt the basic cultural fabric, or threaten core values of the group. The earlier attentions paid to them the better it is likely to be for the change programme.

Resistance may also point out flaw in the process of introducing change. If a change is being introduced by outsiders in the organisation or the community, it will not be "owned" by them. Resistance may show lack of "ownership" of the change programme by the community, in which it is being introduced. Resistance may show that the process of change has not been participative.

Resistance may, therefore, be helpful in bringing attention to some aspects neglected by the change planners - threat to the core values and life styles, unintended disturbances causing problems, "bad" process of introducing change etc. Resistance can be used for making the change process more effective. Taking such a positive approach to resistance Karp suggests 4-step approach to resistance as shown in Table 4.1. This relates to bringing out resistance (surfacing) by encouraging people to express resistance; giving importance to it as reflected in listening and acknowledging; exploring the reasons of resistance to learn what can be done; and rechecking after analysis if still the resistance is substantial.

**Table 4.1 : Four Step Treatment of Resistance adapted from Karp, 1988**

- |               |   |
|---------------|---|
| 1. Surfacing  | <ul style="list-style-type: none"><li>• Make expression of resistance safe</li><li>• Ask for it all</li></ul>           |
| 2. Honouring  | <ul style="list-style-type: none"><li>• Listen</li><li>• Acknowledge</li><li>• Reinforce permission to resist</li></ul> |
| 3. Exploring  | <ul style="list-style-type: none"><li>• Distinguish authentic from pseudo resistance</li></ul>                          |
| 4. Rechecking | <ul style="list-style-type: none"><li>• Probe</li></ul>   |

### 4.3 THE LANGUAGE OF RESISTANCE

In a change process, some gain and some lose. Resistance may show that some persons are threatened by change. If resistance is not legitimised, it is likely to come out in different ways of expressing difficulties with change. Various alibis are likely to be given against the change process. In the absence of legitimate channels of exploring the dissent, the language of alibis is likely to be distract attention to non-issues. Murthy has suggested a large number of alibis people use for resistance to change. This is shown in Table 4.2. The more an organisation encourages and analyses resistance, the less the alibis are likely to be used.



**Table 4.2 : Alibis for Resistance to Change**  
(From PVR Murthy's Managing Change, Unpublished)

**Bad Theory alibis**

1. This is all theory
2. Theory is different from practice
3. It is nice to hear and easy to say but difficult to practice
4. We have been doing it for thirty years.
5. It is not the best solution

Let us get the best solution then we shall implement it

6. We have to get more facts
7. Let us form a committee.

**Unsuitable Alibi**

1. We are not in Japan
2. We should all visit Japan if we have to believe all that
3. We are all divided by Caste, Community etc. So we can't bring changes
4. It won't work in our company.
5. We tried it before and it didn't work
6. The other company tried and gave up.
7. No one can help us. Company is beyond repair.
8. We are not yet ready.
9. We don't have money for all these changes.
10. We don't have time at all.

**Too risky alibis**

1. We need consistency. We cannot keep on changing.
2. We can't take risk.... you see
3. It is impossible.
4. What will happen to the present people ?
5. We need the change.... but you see
6. The customer will jump on us
7. The competitor will exploit our failure.

**Unacceptable to others alibis**

1. I follow, but our people are bad

2. I understand but others cannot
3. It is not my problem
4. The problem is with the government
5. The problem is with the top management
6. Boss won't like it
7. All the problems are because of the top management's incompetency
8. My bosses should change first
9. The problem is with the middle management
10. The problem is with the supervisors
11. The union won't like it
12. The problem is with the inter-union conflict
13. The workmen can never understand
14. The old employees won't understand
15. The younger employees do not have patience
16. Our youngsters do not have maturity

#### No gains alibis

1. We are not paid Japanese salaries
2. What do I get out of the change
3. Why should I work for the change
4. Last year I worked hard what did I get in turn
5. Why do we have to stretch ourselves ?
6. I suggested all that long back. Nobody bothered at that time. Why should I listen to them now.
7. Benefits are limited, why trouble ourselves ?

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## 4.4 SOURCES OF RESISTANCE :

Resistance results from disturbance of equilibrium in individuals or groups (organisations). Resistance has been seen as a natural way of keeping homeostatis. Change may produce some stress, as (See Watson, 1969) exercise increases pulse rate but "resistance" to this change brings back the heart rate to normal. Similarly, a training programme may bring about temporary change in people influenced by it, but they soon revert to their old habits (unless the training effect is reinforced by other means). In this sense resistance is a natural phenomenon of homeostatis.

Similarly, things learned first become "resisters" for new thing. Watson has suggested various forces of resistances, relating personality of individuals and the organisational dynamics, as shown in Table 4.3.

**Table 4.3 : Forces of Resistance to Change in Individual and Organisation  
(From Watson, 1969)**

**Individual**

1. Homeostatis (the tendency to revert to old ways)
2. Habit (ingrained accustomed ways of doing things)
3. Primacy (first experiences powerfully determining our actions)
4. Selective perception and retention (using one's own ideas)
5. Dependence (learning from role models becoming internalised)
6. Super-ego (internalised traditions determining behaviour)
7. Self-distrust (blaming onself rather than seeking external change)

**Organisations**

1. Conformity to norms (tendency to follow known ways of behaviour)
2. Systemic and cultural coherence (tendency to remain homogeneous)
3. Vested interests (groups or individuals affected by change)
4. The sacrosact (some areas having strong emotional sensitivity)
5. Rejection of "outsiders" (the question of "ownership"). Considering both the individuals and the organisations, ten sources of resistance are suggested in Table 4.4 (next section).

## 4.5 MANAGING RESISTANCE :

Managing resistance will involve using resistance as a positive of the change process, preventing resistance, and coping with it.

Watson (1969) has suggested some ways of reducing or preventing resistance. These relate to ownership of change, nature of change, and the process of changing.

**Ownership :** Resistance is likely to be low if the change is perceived as being the need of and suggested (owned) by those affected by it, and when it has the top management support.

**Nature of Change :** Resistance is likely to be less if change is seen as reducing problems and burdens, conforming to the core values of the group, offering new and interesting experience to the group, and does not threatening autonomy and security.

**Change Process :** Resistance can be reduced by joint and agreed diagnosis of the problem, consensus on the broad design of change, listening to "objections" (and learning from them),

periodical review and feedback, development of high interpersonal trust and cohesive teams, and openness to revision.

Various sources of resistance and the possible coping mechanisms are summarised in Table 4.4. These are briefly discussed below :

**Table 4.4 : Sources of Resistance and Coping Mechanisms**

Sources of Resistance	Coping Mechanisms
1. Perceived peripherality of change	Participation in diagnosis
2. Perception of imposition	Participation and involvement
3. Indifference of the top management	Active support from the top
4. Vested interests	Fait accompli
5. Complacency and inertia	Fait accompli
6. Fear of large scale disturbance	Phasing of change
7. Fear of inadequate resource	Support of resources
8. Fear of obsolescence	Development of skills
9. Fear of loss of power	Role of redefinition and reorientation
10. Fear of overload	Role clarity and definition

- 1) **Perceived peripherality of change** : If the executives perceive that the change being introduced in the organisation is not critical for them or their units, they are likely to resist such a change. Implementation of change can be effective if the change introduced is seen as critical and useful. This can be achieved by involving the concerned managers in the diagnosis of the issues or problems, so that they can appreciate the need for change. Their attitude to the innovation introduced will then be positive.
- 2) **Perception of imposition** : Similarly, if the managers in an organisation see the change as being imposed by the corporate or the head office, they are likely to resist the change. Such resistance can be reduced by involving them in the introduction of change at several stages. This can be done through seminars, work groups to evolve the various parts of the change programme, and task forces to work out details of implementation. Participation of the managers at various stages of the change increases the commitment to the change.
- 3) **Indifference of the top management** : The behaviour and attitudes of the top management are critical in the implementation of change. If the top management do not show much enthusiasm or interest in the change, the people at the lower level will put up increased resistance to it. The top management can show their interest by frequently getting information and feedback on the progress of the change, participating in some seminars organised to discuss the experiences, meeting new occupants of new roles created as a part of the change, providing positive strokes (encouragement and appreciation) on the success experiences, and mentioning the experiment in the significant documents such as the annual report etc.

- 4) **Vested interests** : Change produces some disturbance, and sometimes some dislocation. For example, if an organisation creates new units, which are located in the smaller towns, people moving to the smaller towns from capital cities will face problems and experience inconvenience. As a result of this they are likely to resist the change. They may, of course give different reasons, which may appear logical. However, once they go and work in the smaller towns, they may enjoy the change and may see its positive aspects.
- 5) **Complacency and inertia** : As a general rule change produces discomfort. People develop complacency while being in one state. The change of state is some what painful. The solution of the problem is to introduce change and help people experience new conditions. Then the resistance usually goes down.
- 6) **Fear of large scale disturbance** : In a large organisation there may be a genuine fear that proposed change is likely to lead to some changes with unpredictable consequences. This is particularly true if the proposed change is a sensitive area, and requires special skills. As already discussed, phasing of the change programme may reduce resistance arising out of this dimension. Resistance to change is not always bad. It plays a positive role in indicating the areas of potential failure or problems, which may come in the way of the effectiveness of the change or system. Preventive sanction such as experimentation, adjustment, phasing, etc., may be helpful.
- 7) **Fear of inadequate resources** : Resistance may also increase if the implementation of change requires additional resources in the form of new skills, additional manpower, or budget. Provision of such resources support may reduce resistance it may, however, be examined whether there is a genuine need for the resources. For example, if a new unit is created with greater autonomy the support of planning, personnel and technology may be provided to help the units to succeed in meeting their objectives.
- 8) **Fear of obsolescence** : Resistance to change may also be high if the change requires new skills and the existing people may feel that because of lack of those skills they may become obsolete. This may be a real threat. Resistance can be partly reduced if the concerned people are given orientation and are trained in the new skills needed. For example, introduction of the HRD may succeed if the existing functionaries in the personnel or organisational planning departments are given enough training in the new function so that they feel confident in carrying out these effectively.
- 9) **Fear of loss of power** : Sometimes resistance to a change is high if there is a feeling that as a result of the change some roles will lose power. For example, creation of new planning roles may raise such a fear, as the planning functionaries may not get the operational powers. Or creating of new unit may "deprive" the existing top managers of the operational powers being delegated to the units. Such resistance can be reduced if the roles are redefined and redesigned so that the concerned role occupants can perceive that they may have different kinds of power which may be of a higher order, although different in nature. The involved roles may be helped to realise the power.
- 10) **Fear of overload** : If some people feel that the change will increase their work load, they are likely to resist change. This may happen if they perceive new functions being assigned

to their roles. However, if their roles are defined, and they are able to prioritize the functions, and decide which functions can be delegate to their subordinates, the resistance can be reduced. This would require seminars on role definition and clarity, and negotiation for delegation of some functions.

Coping strategy to be adopted may also depend on the situations Maheshwari (1991) has suggested overall six strategies each of which would work in a special situation : education and communication participation and involvement, facilitation and support (e.g. training in new skills), negotiation and agreement (e.g. modify details), manipulation and cooperation, explicit or implicit coercion.

#### 4.6 SUMMARY :

In this unit, it is explained, how employees resist change in an organisation, how it should be viewed in a positive way, what are the Sources of Resistance, and how the resistance should be Managed.

#### 4.7 SELF-ASSESSMENT TEST / QUESTIONS :

- 1) Why do people, in organisations, tend to resist change ? Explain instances of resistance to change in your own organisation and the effectiveness of Management strategies to overcome the resistance.
- 2) Why do individuals and organisations resist change ?
- 3) What are the sources of resistance ? Explain coping mechanisms to resist the change.
- 4) Discuss how it is possible to manage resistance.

#### 4.8 FURTHER READINGS :

There is excellent material on resistance to change in chapter 9 of W.G. Bennis, K.D. Benne and R. Chain (Eds.) *The Planning of Change* (Holt, 1969, 2nd edition), including positive aspects of resistance. G. Watson's reading in that section is still a classic.

H.B. Karp in "A positive approach to resistance" in *1988 Annual : Developing Human Resources* (P. 143 - 146) edited by J.W. Pfeiffer (University Associates 1968), Karp has discussed positive aspects of resistance to change and the strategy of using resistance to make change effective.

Chapter 22 in Udai Pareek's *Organisational Behaviour Processes* (Rawat, 1988) discusses various coping mechanisms for resistance to change.

Roger Plant's *Managing Change and Making in Stick* (Grower, 1967) is a good source for dealing with resistance.

Some recent experience of management of change in India been reported in *Management of Change through HRD* edited by B.L Maheshwari and DP Sinha (Tata McGraw Hill, 1991). Chapter 1 by Maheshwari also deals with the management of resistance.

PVR Murthy in "Management of Change" (unpublished) has given a list of some generally expressed excuses for the change not accepted. These have been cited in this unit.

## UNIT - 5

# EFFECTIVE IMPLEMENTATION OF CHANGE

### Objectives:

After completing the unit you should be able to :

- appreciate the need to study implementation of change
- understand the process of implementation
- plan monitoring of change

### Structure :

- 5.1 Importance of Implementation
- 5.2 Planning
- 5.3 Monitoring
- 5.4 Action and Adaptation
- 5.5 Support
- 5.6 Summary
- 5.7 Self - Assessment Test / Questions
- 5.8 Further Readings

## 5.1 IMPORTANCE OF IMPLEMENTATION

A change is an alien element, and to become functional it should become a part of an organisation in which it is introduced. Unless a change is internalised and integrated, it remains 'alien'. Introduction of change in an organism (a body) and an organisation have some common features. The transplanted part in a body has to be integrated with that body. It can be rejected at any time. And so a watch has to be kept to ensure that the part is not rejected, and necessary steps are taken to facilitate the process of integration. The same applies to an organisation. It is necessary to ensure that the change gets integrated in the organisation, it is stabilised, becomes a part of the organisational working. This is a part of the implementation process.

Implementation can be defined as the institutionalisation and internalisation of a change after it has been accepted by an organisation and a decision has been taken to accept and make it part of the ongoing activity. Implementation starts after the decision has been taken about the change programme. Several contextual factors have been found to be significant for the success of implementation. Fullan and Pomfret (1977) have suggested four different dimensions of implementation requiring some attention. These dimensions relate to the characteristics of the innovation (explicitness of innovation, and the complexity or degree and difficulty of change), strategies and tactics (in-service training, resource support, feedback mechanisms, and participation

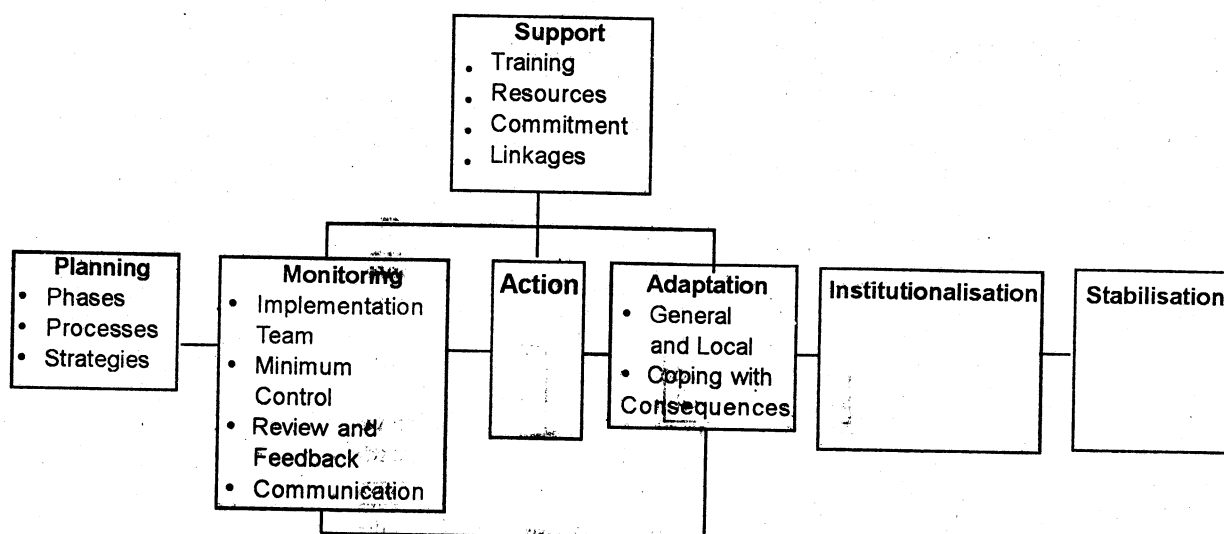
in decision making), characteristics of the adopting unit (adoption process, organisational climate, environmental support, and demographic factors), and characteristics of macro-social political units (design issues, incentive system, evaluation, and political complexity). Implementation has been raised as an issue of control versus decentralisation and facilitation of change through participation.

Implementation may be seen as multi-dimensional process. Paul (1980) has proposed the concept of strategic management for the implementation of public programmes as an interaction between four dimensions - environment (opportunity, needs, constraints, threats, scope, diversity, uncertainty), strategy (service-client-sequence, demand-supply-resource mobilisation), process (planning and allocation, monitoring and control, human resources development, motivation-compliance), and structure (differentiation-integration of tasks, structural forms, degree of decentralisation, and degree of autonomy).

The end result of implementation is the institutionalisation and stabilisation of change. Institutionalisation means making the change a permanent part of an organisation; and internalisation means stabilisation of the change so that it becomes a natural part of an organisation's working and style; the former is more structural, and the latter more processual.

In order to achieve the end results the whole process of implementation starts with planning. Implementation primarily consists of monitoring the change, taking action in relation to the change, and making necessary adjustments in the programme which has been accepted for implementation. This may be called adaptation. This three-phased implementation process monitoring-action-adoption-is possible if necessary support is provided at the several stages of implementation. This gives a basic model of the implementation process which is shown as figure 5.1. As the figure indicates, planning is the initial process followed by the circular process of implementation in which the feedback goes from adaptation to monitoring. This leads to institutionalisation and stabilisation of change. Various aspects of this process are briefly discussed here.

**Figure 5.1 : The Model of Implementation of Change in an Organisation**





## 5.2 PLANNING

The main purpose of planning is to have an overall understanding of the nature of implementation. Here planning refers to planning of the implementation process after a decision has been taken on implementing a change. The following three dimensions are involved in planning. Reviewing several Asian experiences in the area of implementation of curriculum change a group of experts have suggested that the preparation should include broad based participation by people involved in the implementation of the programme itself, public support and adequate resources for implementation of the programmes. According to them the preparation of the community becomes necessary because, among other things, this would facilitate curriculum renewal as an essential part of curriculum implementation.

**Phasing :** Planning may be focused on the phasing of implementation. Implementation may be a short term or a long term programme. Depending on the nature of the change programme, the implementation process may have to be phased. Phasing may be either temporal (in terms of time), or spatial (in terms of the various parts of locations of an organisation). Temporal phasing would involve preparation of a plan in which some elements of innovation may be introduced earlier, and some other elements may be introduced later. For example, in some organisations in which a new system of human resource management is introduced, performance appraisal is implemented first, and after it gets stabilised, potential appraisal system is implemented. The whole system may not be implemented at one time. Phasing may help to stabilise some elements of the change programme before the next elements are introduced.

Phasing can also be in relation to the parts of the organisation. For example, the change programme may be implemented in some parts of the organisation first, followed by some other parts. If the organisation is a large one, it may be a good idea to implement the change programme in that part of the organisation where acceptability is high; experience may be collected in that part to see what new changes and modifications are needed in the programme. Such attention to phasing in the beginning is necessary.

**Processes :** Planning should also pay attention to various processes involved in implementation. Often the processes are neglected. Most of the time the underlying processes of implementation are taken for granted; this may lead to several difficulties. Enough attention needs to be paid to the process of collaboration, increasing the capability of the organisation to cope with problems as they arise, establishing norms of openness and various other values which are necessary for the implementation of the change programme, developing creative relationships to deal with the problems, self-reliance, etc. If attention is paid to these processes in the beginning, implementation will become easier. It may be useful to understand which human processes and values are critical and therefore will require enough attention to make planning more effective.

**Strategies :** The strategy of implementation needs to be given attention in the beginning; at the planning stage. Questions like the following need to be included in the strategy : Will any help be taken from outside agencies ? When will a more or less permanent structure be evolved (institutionalisation) and set up in the organisation ? Which parts of the organisation will be selected for experimentation and initial implementation. If phasing is accepted as a strategy? How will

support be ensured to the various groups involved in implementation? What interlinkages need to be built for effective implementation etc.? All such questions need to be answered before implementation is finalised.

Havelock and Huberman, (1977) analysing the responses of 81 experts to several questions on implementation of educational innovations, suggest five factors of effective strategy formulation: participative problem solving (innovation should be controlled by the local people, it should be responsive to their needs, and should emphasise local resources and self-help), open input (innovation should be broadly and flexibly designed to make the maximum use of all ideas and resources from inside and outside); power (innovation should be clearly directed from above, using laws, formal networks of opinion), planned linkage (innovation should be carefully planned, based on clear and realistic objectives, dialogue between innovators and all relevant others, and high sensitivity to the user's actual situation).

### 5.3 MONITORING :

A World Bank document in 1977 defines "monitoring" as : the gathering of information on the utilisation of project inputs, on unfolding of project activities, on timely generation of project outputs, and on circumstances that are critical to the effective implementation of the project. A document issued by the United Nations in 1978 on monitoring and evaluation defines the concept of monitoring as follows : The term monitoring usually refers to the process of routine periodic measurement of programme inputs, activities and outputs undertaken during programme implementation. Monitoring is normally concerned with the procurement, delivery and utilisation of programme resources, adherence to work schedules or progress made in the production of outputs. Both these definitions agree that the functions of monitoring is to provide early warnings concerning shortfalls in inputs or outputs in order to enable the programme management to undertake timely corrective measures.

Monitoring is necessary to make implementation effective. Monitoring would mean ensuring that a plan proceeds according to the original design. It is necessary to set up a mechanism of monitoring and reviewing a change programme and its implementation. Monitoring and institutionalisation may be kept independent for sometime in an organisation. Further, the monitoring function may precede, and institutionalisation of the change (in the form of setting up a permanent or semi-permanent unit to take over that change programme) may be done later on, so that the advantages of monitoring may be fully utilised. There are several reasons why monitoring and institutionalisation may be kept independent for some time. While a monitoring group may be a temporary system, the group which takes over the change programme, and through which the change programme is institutionalised in the organisation will be a permanent or a semi-permanent system. Firstly, it is necessary to involve a broader group of people in the monitoring function. It is not possible to do so if the change programme is quickly institutionalised and a permanent unit or department takes over this function, and also performs the monitoring function. In order to make monitoring broad based, it may be useful to have representation of various groups in the implementation team (IT). This may be possible if the implementation team (IT) is only a temporary system. Secondly, if the function is institutionalised too early, the new department or unit will have a tendency to justify its existence, and may therefore not pay attention to several factors which may create problems in the implementation of the change. An independent and temporary group, not

having any vested interest in the change programme, is likely to pay attention to these difficulties much more easily. Thirdly, if the monitoring group continues to be an independent group, it may be able to attend to several dimensions which require continuous attention, and these may be neglected by a permanent or semi-permanent group because the group may be too busy with the day-to-day activities, and thus some important dimensions may be neglected in favour of the urgent ones, in the hope of coming back to these in the near future, which may never happen. And lastly, being a broad-based group of the implementation team (IT) may be able to get more support of people in the total organisation.

Several dimensions of monitoring require attention. Some of these are mentioned as follows:

**Implementation team :** A broad-based task group or implementation team (IT) should be set up to look after the implementation of the change programme and to monitor such a programme more effectively. It is useful to have almost a whole time coordinator of such a group. This group, IT may have representation from several parts of the organisation. IT should include people who are known for their creativity, who are positive and critical, and who are interested in providing support to new ideas. The convener of IT should have a high enough status in the organisation so that he may be able to get the necessary support for the group. He should also have high acceptance in the organisation; should have high task concern to pursue matters effectively; should enjoy creative work in which there is no authority involved; and should have interest in the field of the change programme.

In one organisation where a new human resource development system was designed and implemented, a task group for implementation was set up even before the new department was created. Such a task force continued for sometime. The convener of the task force was well-known for his implementation skills and for his high task-orientation. The task group had representation from several sections of the organisation. After the task group functioned for some time, a new department was created in order to institutionalise the HRD system, and a senior person at the level of the director was appointed to be incharge of this new function. The convener of the task group was of the general manager level. However, the task group continued to function, and the chief of the new function (who was of the director's level) attended the meeting of the task group as a permanent invitee. Although he was of the senior grade, he continued to attend the meetings and provide necessary information about the functioning of the HRD system, whereas the implementation team continued to work on new dimensions, and transfer to the HRD department those dimensions on which enough stability had been reached.

The experience described above may indicate that in some organisations people who are acceptable can continue to have such a parallel temporary system for some time in order to provide support and critical feedback to the new function.

**Minimum Control :** Monitoring will be most effective when it is able to keep track of what is happening at various levels in the organisations, and at the same time provide enough support for local experimentation and make necessary modifications in the programme. Monitoring is a delicate affair. In one sense it is a control function, getting all the necessary information from time to time in order to take decisions, ensuring that the programme is carried out according to the design, reminding

the people and communicating the seriousness of completing the schedules according to the plans. On the other hand, it also attempts to develop new norms of creativity, diversity, and experimentation. This combination is possible if the IT is using minimum formal controls, and yet is able to keep control of the implementation of the programme.

**Review and Feedback :** Implementation requires getting data and experiences about the use of a particular programme. Periodical reviews may be based on continuous feedback. Monitoring also involves providing feedback to the people on how well they are implementing or not implementing the programmes. The functions of the review is to know what difficulties people are experiencing in implementing a programme, so that the necessary support in its implementation can be provided.

**Dissemination of Information :** As a result of review and feedback the IT may collect enough information about what is happening in the various parts of the organisation where the change is being implemented. The IT may prepared their own strategies of collecting such information and disseminate the experiences of success to reinforce a sense of success amongst various people. Information which is needed to implement the change programme may also be disseminated from time to time. The implementation group may like to prepare a programme in advance of how such information is disseminated, and what will be the form of the dissemination. It may issue written instructions and may send written communication. At the same time it may convene some special seminars and meetings in order to discuss the problems and then disseminate the experiences.

## 5.4 ACTION AND ADAPTATION

The change programme requires certain steps to be taken, Action will cover all the details of what is to be implemented. Such implementation will involve various phases and the steps people and various groups take in relation the change programme.

Fullan and Pomfret have suggested two main dimensions of implementation: What they call fidelity (the actual, use corresponding to the intended or the planned use), and mutual adaptation (flexibility, so that a programme gets developed and changed during the process of implementation). Adaptation has thus been suggested as one of the two main criteria of effectiveness of implementation. A programme in which no modifications are introduced later does not show effective implementation. Implementation would require understanding and analysing the experiences people have with the programme and learning from them. This would be reflected in the modifications which are made in the programme. Adaptation may be both general, in the sense that some modifications may be made in the original plan, and some may be local. Local adaptations may indicate that while the programme is being implemented throughout the organisation, some units in the organisation may make necessary modifications in the programme to suit their requirements. Such an approach may give necessary flexibility to the change programme.

**Dealing with consequences of change :** A change being an alien element, causes disturbance. When a change is introduced in an organisation, it may cause some threat to some people. Such threats are more imaginary than real. It may also produce some immediate "negative" results. For example the introduction of a job enrichment programme, or work redesign programme may result in an initial fall in productivity, initial dissatisfaction among some people who may have to learn new things, and initial concern among the supervisors about their functions. The term "initial" has been used to indicate that these are temporary symptoms of disturbance which is a necessary part of

change. The organisation has to deal with such consequences. If attention is not paid to such consequences, the symptoms may accumulate and may contribute to the rejection of change. This is once again similar to the problem of the transplantation of a part in a human body. Transplantation produces some disturbances, showing up in the form of high temperature, change in blood pressure, etc. These symptoms have to be controlled. If the early period can be managed properly, the transplantation may be successful.

It has been reported in the change efforts of job enrichment and work redesign that immediately after the change is introduced in an organisation, there is a fall in production. In work redesigning efforts, the dissatisfaction of the supervisory staff increases gradually, when they perceive that their roles are becoming redundant. Unless the change programme does something about the dissatisfaction of the supervisory staff (eg., redesigning their roles, involving them in some critical decisions, etc.), the change may not succeed. The supervisory staff may create several obstacles.

In one organisation a new human resource system was introduced, which included a new performance appraisal system. As a result of more open discussion of the objectives of the employees with their managers, and later discussion of the favourable and unfavourable factors for performance (which were parts of the new appraisal system) the employees wanted to know more details about the ratings. Some managers felt uneasy, and thought that the new system was increasing "indiscipline". The problem was solved by organising training programmes for employees (appraisees) and managers (appraisers) on how to receive and give feedback and counselling. In another organisation these consequences were anticipated, and a similar remedial action was taken prior to the introduction of the new system. This helped to reduce the problem considerably.

## 5.5 SUPPORT

Support of various kinds will be required for the implementation of a programme. The main support comes from administrative and managerial groups. Some main dimensions of support area suggested are as follows :

**Training :** New skills are needed for the implementation of a programme. It is necessary to provide training for such skills. This may include some process skills such as, collaboration, openness, problem solving, decision making, etc. Or, these may be specific technical and work-oriented skills like the skills and collecting information for specific purposes.

**Resources :** Implementation would require support in terms of various types of resources such as, manpower, financial, and material resources, by people who are implementing the programmes. The implementation team provides such support by finding out what is needed from time to time. Resource support may be needed for all the three aspects - for monitoring, for implementing the action, and for bringing about some modifications and adaptations.

**Top Management Commitment :** A critical dimension of support is the top management support. The involvement of the top management may be necessary. This may come about if enough signals are given by the top management, that they consider the change as important, that they are interested in its implementation, and they themselves are involved in the change. In one organisation where the HRD system was being implemented, there was less enthusiasm during the first year.

Next year when it was known that the chief executive himself had sat with his secretary and had helped him to prepare the next year's plan and spent some time with him on the performance review, the implementation of the HRD system was faster. This was a kind of top management support meaning what the top management wanted other managers to do. In another case, the chief executive attended seminars which were initially organised to discuss the problems of implementation of the HRD system. This gave the signal of support by the top management.

**Linkages :** Support may also be required in terms of building linkages both with external (various other agencies) and internal departments and groups that may provide necessary help in the implementation of the programme. While the programme may officially be the responsibility of one group, it should be the responsibility of the whole organisation to implement it. The development of internal linkages between the IT and the proposed department or unit, between the IT and the line management, between the IT and the top management, etc., helps to provide the necessary support for the change.

Linkages are also needed between the internal people (IT or the internal facilitator), and the external consultants. An external consultant does not work by himself.

The IT to a great extent depends on vital linkages between the external consultant and the internal people in the organisation.

## 5.6 SUMMARY

In this unit, the importance of implementation, planning, monitoring of change are described. How to deal with consequences of change are explained. The support necessary for implementation of change such as what type of training is required, the resources required are explained. Support in terms of top management, linkages between external and internal department are specified.

## 5.7 SELF-ASSESSMENT TEST / QUESTIONS

- 1) Briefly explain the importance of implementation of change.
- 2) Explain, in details, the model of implementation of change in an organisation.

## 5.8 FURTHER READINGS

Discussion of implementation of change in this unit has been borrowed from Udai Pareek's chapter 8 "implementation of change in organisations" in Somnath Chattopadhyay and Udai Pareek *Managing Organisational Change*. Oxford & IBH, 1982.

Based on an extensive review of the various studies on implementation of curriculum innovations and doing factor analysis of large data M. Fullen and A. Pomfret have discussed the dynamics of implementation process in "Research on Curriculum and Instructions Implementation" in *Review of Educational Research*, 1977, 47(2), 337 - 397. The findings are applicable to other fields also.

The issues of implementation of strategic programmes, have been discussed by Samuel Paul (1980) in *Strategic Management of Public Programs*. (Kennedy School of Government, Harvard University, Mimeographic).

Interesting material on strategy formulation for effective implementation can be found in *Solving Educational Problems* by R.G. Havelok A.M. Huberman Unesco, 1977.

## **BLOCK 2    DIAGNOSIS AND INTERVENTION**

This Block consists of 5 units : Unit 6 to Unit 10. Unit 6 describes the concept of organisational diagnosis. i.e. issues related to diagnosis, possible domains of organisational diagnosis and the link between theory and practice of organisational diagnosis. Unit 7 discusses the issues related to methodology of organisational diagnosis. It explains how to plan and use diagnosis; the best possible approach for diagnosing; and different methods used for diagnosis. Unit 8 examines different diagnostic methods : Quantitative and Qualitative. Description of observation, interview, questionnaire, survey feedback, projective methods archival / unobstrusive measures are given. The process of content analysis is explained. Unit 9 explains the concept of intervention, and different types of intervention in organisational change and how they are applied. Unit 10 describes the evaluation of organisational change programmes and its processes.

## UNIT - 6

# ORGANISATIONAL DIAGNOSIS : ISSUES AND CONCEPTS - AN OVERVIEW

## OBJECTIVES

After going through the unit, you should be able to :

- comprehend the concepts and assumptions of Organisational diagnosis.
- understand the dynamics of issues related to diagnosis.
- identify different possible domains of organisational diagnosis
- develop insight into the linkages between theory and practice of organisational diagnosis.
- evaluate and think critically about the various models.

## STRUCTURE

- 6.1 Introduction
- 6.2 Diagnosis - General Consideration
- 6.3 Organisational Diagnosis - Its concept
- 6.4 Diagnocube : The Domain of Diagnosis
- 6.5 Theory in Action : The Framework of Organisational Diagnosis
- 6.6 Self-Assessment Test / Questions
- 6.7 Further Readings

## 6.1 INTRODUCTION

In Unit 1 of Block, 1, various models of planned change have been indicated. These models envisage change as a continuous process characterised by certain stages. This change passes through its different periods : the baby stage, childhood state, preadolescent stage, adolescent stage, youth stage, etc. The person does not experience any discontinuity, yet each state has its own distinctiveness and characteristics. Similarly organisational changes are direction dominated rather than goal driven, continuous and marked by stages. From the eight stage sequential model of planned change presented earlier (units 1 and 2, viz. 1. Initiation, 2. Motivation, 3. Diagnosis, 4. Information collection, 5. Deliberation, 6. Proposal, 7. Implementation, and 8. Stabilisation). The third and the fourth stages (Diagnosis and Information collection) are being given special treatment here under the shortened heading "Diagnosis". Subsequently, stages 7 and 8, viz., Implementation and Stabilisation, under the general label "Intervention", will be further elaborated. Stages 5 and 6, viz. Deliberation and Proposal, being between the two major foci of diagnosis and intervention lean heavily on both of them.



Some authors have expanded the scope of the term intervention very "broadly Schein (1969) stated that " ... every act on the part of the process consultant constitutes an intervention.." (p. 98) though, at the same time, he viewed process consulting as comprising of two processes : diagnosis and intervention (Schein 1969). Later he observed that the entire range of activities that a consultant does with respect to an organisation. "**... can best be conceptualized as two types of interventions - diagnostic and confrontive...**" (Schein, 1988, p. 141). This dichotomy has its own problems. Diagnosis can be used for an intervention and an intervention can be used for a diagnosis. In fact the very act of diagnosis itself is an intervention; but there are intervention - free diagnoses as well as diagnoses - free interventions. These two terms, diagnosis, and intervention, will be used here as conceptual labels for two distinctly different phenomena. The difference stems from the basic principles that guide these two processes : diagnosis is centrally concerned with **knowing** whereas intervention with **doing**. To maintain this distinction, a consultant is a **diagnostician** when he is occupied with diagnosis. Similarly, the term, **interventionist**, coined by Argyris (1970), will be used here to denote that role of the consultant when he is occupied with intervention.

## 6.2 DIAGNOSIS - GENERAL CONSIDERATIONS

Most of the calculated management decisions are based on some sort of diagnosis. Every manager, irrespective of his level, is in a continuous cycle of diagnosis - decision - action - evaluation, so long as his decisions and actions are not impulsive. His ability to diagnose directly affects his performance. Top management often takes decisions forwarded by the managers at lower levels. The top managers have often to 'see', not with their eyes but with their ears. The ears listen to what the other managers have diagnosed. The direct contact with organisational reality is minimum at the lonely heights of the organisational top. Yet, periodically, they are supposed to know clearly what is happening within the organisation. Much data, helpful for diagnosis, are screened off by managers at the lower echelons at their own discretion. The upper level may thus be handicapped by less available information and data. Their level is the converging point of divergent views of the lower levels which make their own diagnoses. How many managements reject or synthesise these views without knowing the diagnostic bases from which their managers tend to operate ?

Sometimes the management seeks help from external diagnosticians. Is this done in the interest of objectivity ? It is to crosscheck its own views ? In a recent study of 85 chief executives, by Bhattacharya, Chattopadhyay and Sengupta, it was found that about 85 percent of the chief executives agreed quite strongly that one of the reasons for using external diagnosticians was to have objectivity. But when it came to comparing the management's own views with those of the outsider, only about 75 per cent agreed quite strongly with the proposition while 29 percent quite strongly disagreed. Putting these two sets of data together, one may get an indication of the dilemma that prevails in the situation. Neither can internal diagnosis be accepted, nor can it be rejected. One feels that the objectivity lies outside; one has to crosscheck the internal diagnoses. Yet, how can one agree to crosscheck one's own internal diagnoses since they often constitute the operating base? The dilemma seems to be "Do I not trust and depend on my own instruments?"

To know ("gno") is the central concept in diagnosis. The urge to know, to sense what happens around an individual and integrate the experiences into a pattern, a syndrome, and to arrive at a distinguishing meaning of these experiences constitutes a basic urge of a variable,

dynamic organism. This cognitive process of diagnosing is characterised by a high degree of selectivity in sensing. With selectivity, screening takes place. Differential preferences and specialisations emerge. Different schools of thinking develop. The specialisations which are likely to affect both internal managers and external diagnosticians, provide rich depth and breadth in differentiation and divergence. But the associated need for integration and convergence to a single point of action-decision remains more often than not unattended. The role of the top management is specifically to deal with this duality.

### 6.3 ORGANISATIONAL DIAGNOSIS - ITS CONCEPT

Diagnosis involves

- defining the episode under study by picking up the relevant "symptoms"
- arranging them into a pattern, and
- distinguishing them from other patterns.

A systematic process of diagnosis has been widely used in natural sciences, in applied sciences like forensic science and criminology, medicine, agriculture, engineering and in such other fields. In these spheres, diagnosis quite often ends when a name can be put to a distinguishable pattern of the mosaic of symptoms. For example, a criminologist's diagnosis is complete when he correlates all the relevant facts of a case and concludes it to be a murder and not a suicide; a physician or the radiologist concludes that it is a case of spondylitis (and not myocardial infarction); a psychologist diagnoses the man as having high achievement motivation (and that he is not a social deviant). Organisational diagnosis, essentially, follows the same process. But since organisational pathology has not been studied in any great detail, it is impossible at present to integrate symptoms into such precise and definite syndromes. Moreover, basic sciences have contributed a great deal to understanding cause-effect relationships in other fields of science and technology. Such contributions being limited in organisational sciences, a great deal of heuristic approaches necessarily come into play.

Because of these limitations, there are different expectations from the role of an organisational diagnostician; (a) he should diagnose to the point of describing the present ailment; or (b) he should add to it his prognosis : his estimates of the likely consequences over a period of time; or (c) in addition to diagnosis and prognosis, he should recommend prescriptions of active interventions. No firmly established norm has yet been developed regarding the extent to which the meaning of diagnosis should be extended. However, it would be pragmatic, if the process of diagnosis includes prognosis but not interventions'. More importantly, it should trigger a process of self-searching through a relationship of mutuality between the external diagnostician and the organisation.

In the study of Bhattacharyya, Chattopadhyay and Sengupta, attention of the chief executives was drawn to this mutuality. Only some chief executives (12 percent) said that the diagnostician "made his own diagnosis; and announced it to us". But other chief executives saw different approaches : 7 percent said, "he sold to us his way of looking at the problem"; 12 percent asserted that "he presented a tentative diagnosis, subject to changing", 26 per cent said that "he defined the

parameters of the problem, invited suggestions and evolved the diagnosis"; and lastly, in the opinion of 43 percent, "he was able to involve us in jointly arriving at a diagnosis". These studies indicate the variability in approaches but also show the dominant trend.

The approaches to organisational diagnosis very not only with the nature of relationship between the diagnostician and the organisation, but in a very substantive way depend on : (a) the preferred domain of diagnosis, (b) the methodology adopted in diagnosing, and (c) the assumptions in diagnosing.

## 6.4 DIAGNOCUBE : THE DOMAIN OF DIAGNOSIS

One of the concomitant aspects of specialisation is selectivity in the preferred domain of work. With the same patient, a homeopath and an allopath will have different domains of work; so will there be differences between the approaches of a neurosurgeon, an orthopaedic surgeon and an ophthalmologist. An organisation, defined as a synergistic aggregate of systems and subsystems, offers different domains to work upon. The concept of domain as used here differs from the given by van de Ven and Ferry (1980). According to him "Domain refers to the specific goals of an organisation in terms of the functions it performs, the products or services it renders, and the target population and market it serves". In this definition the concept of domain is embedded in the contextual factors. The definition by which the word "domain" has been used in this chapter refers to the areas of substantive activities or constituents in the content of the organisation.

The domains of organisational diagnosis can be conceived as bounded by four dimensions : (1) systems (2) components of the systems, (3) the coverage of area, and (4) the surrounding external environment; A model of domains of diagnosis is presented in Figure 6.1.

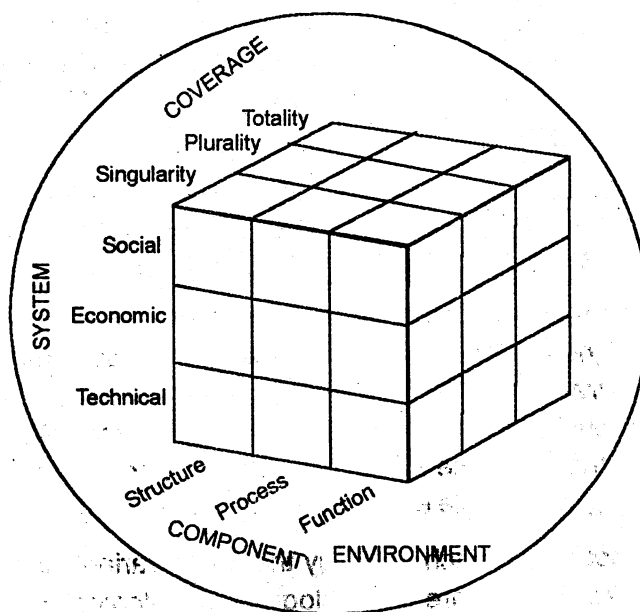


Fig. 6.1 Domains of Organisational Diagnosis

- 1) **Systems** : An organisation can be considered as a combination of SET - social - Economic - Technical systems. The social system, that is the peoples system, consists of psychological, social, cultural and political subsystems arising out of people at work as individuals, groups and multiple groups in a tecno-economic setting. The economic system includes procurement, allocation and utilisation of all resources, finance, cost marketing and the like, in a perspective setting made up by the other two systems - social and technical. The technical system includes work and technology required to perform the work in a perspective of socio-economic setting. Organisational diagnosis has often remained confined to any one of these systems.
- 2) **Components of the systems** : There are three components in each system here the diagnosis is undertaken : (a) structure, (b) process, and (c) function. Structure refers to all elements in the organisation and their comparatively enduring and lasting relationships and arrangements which have formal sanctions. Process refers to the manner in which events are conducted sequentially. Function includes strategic variables, performance variables, results and achievements and end products.
- 3) **The coverage of the area** : The coverage of the domain refers essentially to the area of the organisation opened up for diagnostic investigation. This may be in terms of time, space, people, events or phenomena occurring within the organisation. The coverage may be classified into three categories : (a) singularity, (b) plurality, and (c) totality of events in the life span of the organisation. For example, a medical diagnostician may be called in to diagnose a single episode of ailment (singularity), or a number of episodes and ailments (plurality), or the total health of the patient (totality). A diagnostician similarly can be called in to investigate a single episode of say, a strike, a relationship in a given department, marketing of a particular product, one decision of a particular investment, and so on. Plurality of coverage indicates the opening up of the organisation to more than one specific episode for investigation. The range of plurality will vary. Totality of coverage denotes a diagnosis based focused on the entire organisation, or on any phenomenon in its entirety.
- 4) **The surrounding external environment** : These domains are encircled by the environment. Organisational diagnosis can be undertaken on environment relation to any one of the cells of the domains or without relating it to any specific cell.

Besides environmental investigations, the model thus provides 27 typologies of organisational diagnosis. Each typology, represented by each cell, has three dimensions. Economic-structure-Plurality(ESP) will perhaps require the expertise of structure combined with knowledge of, say, engineering or chemistry. Social-Process-Singularity (SPS) will call for the expertise of a social scientist who is a process diagnostician and is skilled in working on a single episode.

It is also possible that within each typology there are variant forms and emphases. For example, within a social system there are psychological, sociological, political and cultural subsystems, as mentioned before. Therefore, the specialisation of the diagnostician can further narrow down the focus of his diagnostic activity.

Often the diagnostician operates on more than one cell. But he can discern a distinct basis in his emphasising a specific cell. It may be better when diagnosticians are able to use more and more cells in combination. This typology is useful to provide the identifications of the base from which the diagnosis is made - may be the manager or by the external diagnostician; and the other bases that can and should be added to it to get a meaningfully comprehensive picture.

## 6.5 THEORY IN ACTION : THE FRAMEWORK OF ORGANISATIONAL DIAGNOSIS

Beyond the diagnostic domain that the diagnostician selects to work upon, and the method that he chooses to use, are some of his basic assumptions regarding, man, organisation, man-in-the-organisation, quality of work life and the interrelationships that are crucial in organisational life. These assumptions in their turn also influence him to decide on the domain to work upon and to direct the process of diagnosis in a substantive manner.

In practice, diagnosticians have been observed to take different stances. The stance often taken in diagnosis is to examine the present state of affairs of the organisation in relation to its future goals; and then the strategic variables take the topmost priority. But the controversy arises in determining the goals of the organisation : (a) any organisation pursues multiple objectives and these objectives need not be necessarily congruent; (b) the objectives at a given phase of development are not the same as at another phase of development of the organisation; and (c) the impact of the environment of different types at different points of time will have different effects on the organisational objectives. Taken together, one may see that the **goal-oriented parameters of diagnosis** are not really static but are in a state of continuous flux.

Another approach pursued by the diagnostician is essentially normative. The organisation, at the point of time of diagnosis, is as if sick and therefore deviant from the normal. The role of the diagnostician is to find out where the deviations exist and also to estimate the nature and magnitude of these deviations such that a restorative, corrective action can be taken to revert it back to the normal. This is the stance of the physicians in diagnosing patients' ailments. When they find that the deterioration is irreversible they attempt to arrest or retard the further progress of the disease. Some 'business healers' tend to follow the same principle.

The assumptions about organisational diagnosis have been influenced by early conception of organisations as a machine or organism. The fact of the matter is that an organisation is neither a machine nor an organism. The analogies are valid only up to a certain level. The mechanistic approach to find the optimal fit of factors leading to a normative existence, or the organismic approach to find adaptation to environment are, therefore, likely to be functional only up to a point.

Yet another approach, basically influenced by the practice of psychoanalysis, relies on the diagnostician analysing how he himself is made to feel at different stages of the relationship between the consultant and the client; and how those perceptions can be used to clarify the nature of the problems confronting the client (Bain, 1976). There are quite a few practitioners of this method. In this method also, the organisation-organism analogy is quite manifest; the client is ill; the ailment lies not in malfunctioning at the conscious level, but the cause is rooted somewhere deep down at the unconscious level of the organisation. Diagnosis of that mental block and the clients' deeper realisation of its are what is to be aimed at.

One uses concept like "health". But then what is health? A sense of well being. What is well being? Diverse answers from philosophies are possible. One talks about the guiding concepts, like dynamic homeostasis, coping ability, balance of integration and differentiation, negative entropy, equifinality, etc. Concepts have been borrowed from sciences like philosophy, physics, chemistry, thermodynamics, ecology and biology. There is nothing wrong in borrowing. Progress of science has been accelerated by such acculturation. But the fact that so many concepts from different disciplines are in active use, suggests that a more comprehensive and satisfying explanation is yet to emerge. In its absence, one has to work with what is currently available and work towards finding a better concept. Accordingly, approaches to diagnosis will also be diverse. But some choice can still be exercised.

The process of diagnosis which has built-in enabling effect, which increases the ability of the managers to be better diagnosticians such that they can use the process continually in the cycle of diagnosis-decision-action-evaluation. This makes the organisation self-reliant, may be better in the long run. The process of diagnosis that does not reduce everything into inputs, outputs and statistics, or into manipulative numbers, may provide a greater depth of vision and understanding about an organisation.

The process of diagnosis depends entirely on the theoretical construct that the diagnostician works with. These constructs help one understand an organisation, its mode of functioning, its various subsystems, its structure and design and so on. They help in developing models focussing on individual, intrapersonal and interpersonal processes, on group and group processes and on the total organisation and its macroprocesses.

The contemporary models indicate the diversity in approaches. But in most cases the range extends from external environmental analysis to the analysis of organisational performance. The diagnostician has some choices; either he can accept any of the existing models and conduct his diagnostic exploration accordingly; or he can build his own model to guide his own exploration. But what is extremely useful is to have some model before the actual diagnosis is conducted. In the absence of a model, one may possibly be at a loss to determine what to look for in the organisation and what data to collect. Even if data are amassed, they remain discrete, meaningless and therefore useless.

The process of diagnosis includes two basic features, divergence and convergence. The divergence starts from the focal point of a theory. From the theory constructs are evolved; they lead to operational models; operational models indicate the network of variables to be studied, variables under study indicate the data to be collected. Up to this point, the operational area becomes wider and wider. Once the data have been collected, the process of convergence starts. The volume of data has to be gradually reduced; analysis condense the data and ultimately they converge on the primary focal point - the organisational need. In the process some help is also rendered to theory building.

## 6.6 SELF-ASSESSMENT TEST / QUESTIONS

- 1) Explain the different approaches to organisational diagnosis.
- 2) Describe the process of organisational diagnosis.
- 3) What are the different domains of organisational diagnosis? Explain.

## 6.7 FURTHER READINGS

Schein E.H. '*Process Consultation : Reading, Mars*', Addison - Wesley, 1969, 2nd ed. Vol. 1, 1988 2nd Ed. Vol. II, 1987.

Bhattacharya, S.K., Somnath Chattopadhyay and Subroto Sengupta, 1980. "*Management Consulting : Its Present Status and Future Direction in India*" Ahmedabad IIM, (un-published).

Bain, A., "*Presenting Problems in Social Consultancy : Three Case Histories concerning the Selection of Managers*". Human Relations 1976, 29, 7, 643 - 657.

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## UNIT - 7

# DIAGNOSTIC METHODOLOGY : SALIENT FEATURES

## OBJECTIVES

After going through the unit, you should be able to :

- comprehend some Relevant Methodological Issues in diagnosis
- identify factors Associated with Planning the Methodology of Diagnosis
- plan diagnosis of your area of work and authority
- identify and use different approaches possible in selection of Methods
- understand issues related to data collection and instruments of data collection
- be acquainted with the Broad Range of Different Methods used for Diagnosis

## STRUCTURE

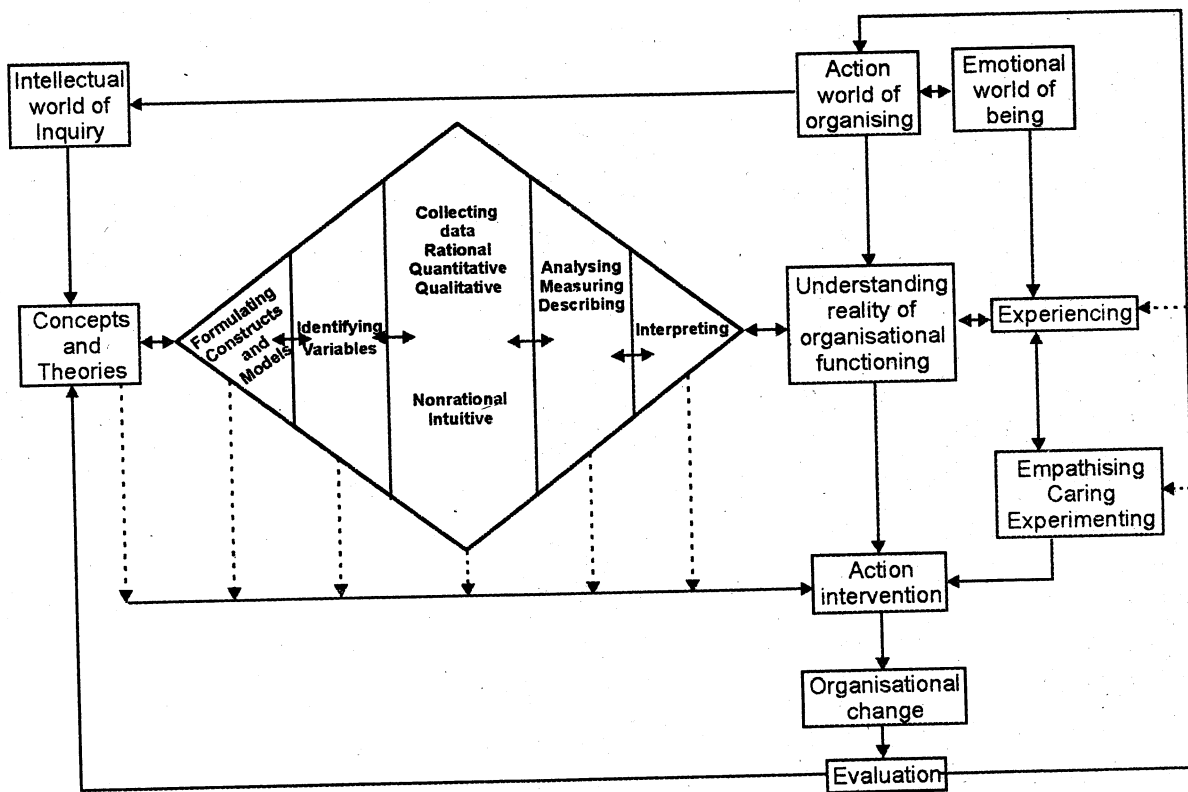
- 7.1 Diagnostic Process and Methods : A Model
- 7.2 Methodological Planning
- 7.3 Methodological Approaches
- 7.4 Collection of Data
- 7.5 Instruments for Data Collection
- 7.6 Overview of Methods
- 7.7 Self-Assessment Test / Questions
- 7.8 Further Readings

### 7.1 DIAGNOSTIC PROCESS AND METHODS : A MODEL

The focal purpose of organisational diagnosis is to obtain an understanding of the reality of organisational functioning. The diagnosis of this reality can be obtained in three ways via (a) knowledge, (b) action and (c) emotion.



**Exhibit 7.1**  
**Organisational Diagnosis and Intervention**



The process of diagnosis has been provided in a model Exhibit (Figure 7.1). Man's basic stance lies in three worlds - knowledge (Jnana), Emotion (Bhakti) and Action (Karma); the starting point for diagnosis is the action world of organising. Influencing this action world and influenced by it are the intellectual world of industry and the emotional world of being. The intellectual world of inquiry is the realm of an accumulated storehouse of human knowledge evolved through endless pursuit of continuous inquiry over time. On the other hand, there is the world of being and becoming where the creativity in man seeks expression of self. When man builds an organisation it is to fulfil his acting self influenced by his 'knowing self' based on whatever knowledge he has been able to acquire from the world of inquiry; but, at the same time, his organisation is also a mode of his expression. What an organisation is to an organisation builder, a painting is to a painter and music to a musician - all are expressions of self.

Concepts and theories bearing upon the relevant domain of diagnosis are derived from the storehouse of the world of inquiry. From these *concepts and constructs*, operational models are formulated. Basically, from these *constructs and models*, those variables are identified on which data needs to be collected. The data can be rational, quantitative, qualitative, unobtrusive, non-rational, or integrative (refer to unit 6). Starting from the concepts and theories, upto this point, the diagnostic process is divergent as the scope increases continually. Once the data are collected, the process of convergence starts. After data collection, analysis is undertaken. There may be

measuring, or describing without measuring. Triangulation becomes a necessity if the multi-method data collection has been resorted to. At the next stage is interpretation. Through interpretation emerges the understanding of the reality of organisational functioning - the central aspect in the diagnostic process. Between the concepts and understanding the reality of organisational functioning one visualises two-way iterative relationships.

The **action** world of organising directly gives rise to an understanding of the reality of organisational functioning. This is direct phenomenological **knowledge**. From the world of being emerges experiencing. The personalised experiencing also builds an understanding of organisational reality. Experiencing leads to subjective, intimate understanding; theory-based interpretation deliberately tries to develop objective, detached understanding. In the diagnostic process, all the *three* models are important.

Action intervention follows the understanding of organisational reality and is determined largely by this understanding. It is also influenced in one way or the other by concepts, theories, constructs, models, variables studied, data collected, instruments of data collection, their analysis and interpretation.

Lawler et al (1980) consider that (a) concepts and theories for understanding organisations, (b) measurement tools to collect valid data about organisational effectiveness, and (c) technologies for changing organisations, are tools necessary for providing the capability to improve organisations. According to them, each set of tools aids in the development of other tools, but measurement tools are extremely central to the development and use of other areas.

Action intervention is also influenced, on the other hand, by empathising, caring and experimenting flowing out of experiencing. Action intervention guided by proper technology of change brings about organisational change. Organisational change is followed by evaluation of change and the state of effectiveness achieved. This evaluation has a feedback loop to the action world of organising on the one hand, and on further building of concepts and theories on the other.

From the above model, it will be apparent that there are more than one major ways of diagnosing. From the emotional way of being one has to capture the experiences in a meaningful way. The psychoanalytical approach quite often takes this route between the clinician and the client. Psychoanalytical approach, and at times anthropological methods, of understanding an organisation are based on exploring the experiences emerging from the emotional world and identifying significant syndromes and patterns. The continuous involvement of the client managers in their action world gives them directly an understanding of what is happening. This understanding is valuable. This kind of diagnosis is a regular instrument for a manager for his regular operation. He therefore may not be able to articulate this understanding in precise conceptual constructs. But the fact that is important is that he has diagnosed; and this diagnosis is valid enough. The problem arises when this diagnosis is not enough. For example, when different managers differ amongst themselves in terms of their personalised reality perceptions - where each one may have valid perceptions based on his particular assumptions and points of view. Normally, the inadequacy of the above approaches compels the organisation to take the third way - the path of inquiry. In the following discussion, emphasis will be accorded mainly to this mode.

## 7.2 METHODOLOGICAL PLANNING

In planning, some of the points to be considered are :

- *how* to conduct the diagnosis
- the *procedure* to be followed
- the *strategy* to be adopted
- the resources (time, people, place, money, etc.) available
- the client's need(s)
- the extent to which the client system agrees with the plan
- the competence of the diagnostician
- the choice of the method(s) as the ideal, fit.

There are different trends in methodological planning. The trends range from hunches, and educated guesses to applied organisational research. At this point, it may be worthwhile to ponder as to at what stage an external diagnostician is called in. The research by Bhattacharya, Chattopadhyay and Sengupta obtained some interesting data from the study mentioned earlier. Out of the 85 chief executives, 26% said that before calling in the diagnostician the organisation had already identified the problem; 54% said they had a reasonably clear idea of the problem; only 18% had some general notion but some uncertainty associated with it. Diagnosticians are not called in when the client organisation is uneasy or very uncertain about the problem.

This implies that in many of the organisations, the management has already decided the domain of diagnosis and has a set of expectations regarding the possible diagnosis. Such a situation may help as well as hinder the actual process of diagnosis. It may help because it creates greater awareness and involvement on the part of the management to collaborate with the diagnostician. It is thus easier to accept his recommendations and the reservation to associate him for implementation is less.

But the situation may hinder diagnosis in more than one way : (a) it may become a self-fulfilling prophecy; (b) if the diagnostician does not have a strong sense of professional adequacy, he may be sucked into compliance when a different viewpoint could have been pursued; (c) it may limit the *possible search in diagnostic* operation to a narrow field; and (d) in the case of difference in points of view, the very fact of a difference may create a disturbance in the power dynamics within the organisation, even though the diagnostician may not like it or want to be a party to it; and this may endanger the acceptance of a diagnosis.

## 7.3 METHODOLOGICAL APPROACHES

All diagnoses are based on the observation of significant facts converted into data - qualitative or quantitative. Even "pure" hunches are based on data. One may either consciously go for the data in a planned manner, or one may not, and that makes the difference. Conscious planning may also be different. Some of the approaches are mentioned here.

### (a) Diagnosis and Research

Research is emerging as a sophisticated approach to diagnosis. Many of the scientific methods, techniques and tools are in use. Methods have been borrowed from diverse disciplines of science like mathematics, statistics, operations research, natural sciences, engineering and technology, psychology, sociology, anthropology and political science. Borrowing from a wide variety of creditors, leads the debtor into a peculiar problem : the debtor loses his own identity. In organisational research, one finds natural experiments, laboratory experiments, field experiments; mathematical models and computer simulations, management games and operations research; survey, field studies and case studies; and action research. The tools of data collection also vary from participant observation to structured questionnaires, from direct questions to unobtrusive measures.

Are basic researches relevant for organisational diagnosis ? **Inquiry** is qualitative research aimed at the development of concepts, laws, principles, theories and hypotheses. The hypotheses and ideas drawn from inquiry are empirically established, and movements towards generalisations are made in quantitative research. These activities are necessary; they provide the mental set, the conceptual framework, to the diagnostician enabling him in the process of diagnosis. By mere amassing of data, a diagnostician cannot find the problem if he does not use the most practical tool that is called 'theory' which binds the data together in a meaningful whole. In the words of Rigby (1965), "It is worth emphasising again that the purpose of basic research is to provide an explanation for phenomena and not to solve operational problems". But diagnosis is essentially to solve operational problems.

Ackoff (1962) identified six phases of applied research-

- 1) Formulating the problem
- 2) Constructing model
- 3) Testing the model
- 4) Deriving a solution from the model
- 5) Testing
- 6) Implementing and solution

In applied research the basic book is the problem formulation. Problem formulation depends, as Ackoff states, on identification of the decision maker, his relevant objectives, the possible courses of action and the context. Quite often many of these are difficult to obtain. If organisational diagnosis, strictly speaking, does not include problem solving but concentrates on problem identification, applied research, by definition, then starts where diagnosis ends. Then how does one use applied research in diagnosis? For example, estimation of serum cholesterol from a blood sample has to undergo a strictly prescribed procedure. Only a clinician who has knowledge of average range of serum cholesterol data in a given habitat and the relationship of serum cholesterol with cardiac problems in a given culture, can make the diagnosis. The point of interest is that the particular estimation of cholesterol from the sample to be diagnosed has to go through the similar procedure.

as in research, but by itself it is not a research. Diagnosis, by itself, may not be an applied research though it may and often does utilise the same research methods, techniques and tools.

Diagnosis emerges as a consequences of many applied researches. In a comprehensive study of all 18 hospitals in Delhi. Chattopadhyay and Agarwal (1976) had the primary objective of testing the theoretical constructs of work motivation. But the study yielded rich diagnostic indications also in terms of organisational health. The interesting outcome of the event was that the hospital which came out as the best amongst them all was most concerned about the findings and ultimately undertook an O.D. Project to improve its organisational health further. The hospitals which "needed" it most, developed cold feet. They accepted the findings but could not do anything about them. The attitude seemed to be, "Why open Pandora's Box? The political dynamics that it would create and the heat that it will generate, will be unbearable; leave it where it is". Subsequently at various points of time, enquiry committees were formed, and one suspects, these will continue to be formed in future year also.

### (b) Diagnostic Studies

It may be posited that diagnostic studies constitute a special class of studies. Selltitz, Wrightsman and Cook (1976) have broadly classified research purpose into four groups : (1) to gain familiarity with a phenomenon or to achieve new insights into it; (2) to portray accurately the characteristics of a particular individual, situation or group; (3) to determine the frequency with which something occurs or is associated with something else; and (4) to test a hypothesis of a causal relationship between variables. The first purpose is served by Exploratory or Formulative studies : the second and third purposes are served by Descriptive studies, and the fourth purpose is served by Casual Relationship studies which are mostly experiment based. It may be apparent that in a diagnostic study all or some of the purposes mentioned above may be required to be pursued. However, depending upon the requirement, the primary focus may be on any one of the purposes. Once the purpose is isolated the type of research can be identified and the appropriate methodology can be employed.

The major objective of diagnostic studies, as contrasted with other types of studies, is to formulate or isolate the problem(s) faced by an organisation, which is unique in time, place, and people.

If theory building still takes place, it is of secondary concern. The foundation of theory is generally not building the educated, substantiated ideas of facts, but more frequently based on ranges from vague, inchoate, inarticulated ideas to unconfirmed convictions, from unnoticed facts to mass of correlated and uncorrelated data, from tangible production data to the rumoured belief of a leader who runs the government or is in the prison. Theoretically it can employ any methodology of any branch of science provided it can deliver the goods in time. For this purpose quick and ready methods are often the preferred vehicles in this odyssey into the unknown.

## 7.4 COLLECTION OF DATA

Collection of data is beset by many problems. As a result diverse strategies to tackle these problems emerge. A few of the many problems faced are mentioned here.

**(a) Quantitative or Qualitative Data :**

Once the operational construct has been formulated the diagnostician has to determine what kind of variables - quantitative or qualitative data - will be needed to make a valid diagnosis. Downey and Ireland (1979) have shown how different workers have used both types of variables in operationalising concepts. Striking a strong note Miles (1979) has stated that qualitative data is an attractive nuisance. Attractive aspects of qualitative data are real, but the problems in managing the data collection, and more particularly data are real, but the problems in managing the data collection, and more particularly in analysing it scientifically, requires methodological inquiry. "Without more such inquiry qualitative research on organisations cannot be expected to transcend story-telling..." (Miles, 1979).

It may appear a truism to state that tangible data are more easily available than intangible data. But anyone who has anything to do with real life statistics would perhaps wish it were really true. How often does one get exact figures ?

In diagnostic studies it is easier to have data on a technical system than on a social system and, with moderate difficulty on an economic system. Similarly, on the difficulty range, one may put process data as the most difficult to obtain, followed by function data, and structure data. Even in the case of structure data, it is easier to get data on elements than on their interrelationships. For diagnosis, one often requires not only the quantitative data, but also perceptions, opinions, beliefs, values and critical thoughts of people in the organisation. One seeks the views of the members of the organisation not only on the social system but on the technical and economic systems as well. Many diagnosticians, experts in quantitative methods, are required to deal with this software. Are they equipped with the appropriate methods, like interviewing? The social scientists who are skilled in the process of collection of these 'software' data, are they also skilled in handling data which lie beyond the social system? Even among the social scientists the basic preferences are varied, based on the particular discipline in which their anchorage is moored like whether one is from the disciplines of psychology or anthropology.

An organisation is a dynamic system where things happen fast. Series of events move in a process. Collection of data at a given point of time is like taking a still shot of a moving object. It fails to capture the dynamic nature of the organisational reality. Diagnostic data often provide the still picture of the company. For example, a part of a problem can be visualised even by looking at the organisational chart. The chart may represent the positional structure at a given point of time but the dynamics that it obtains may be different six months later, if not even after six days. A diagnostician faces an added dilemmas in this situation : (a) in an everchanging dynamic situation what is relevant in 'here and now' is not relevant in 'there and then', in the past or in the future, (b) a process is a continuity; the vision of the future together with the forces of the past mould the 'here and now' of the organisation. The dilemma is in the choice between discontinuity and continuity. What kind of data collection then can be satisfying?

In an organisation, employees have clear differences in their demographic and orientational background. While developing an instrument to measure organisational environment (Chattopadhyay, 1975), it was found that what is relevant to the upper level of management is not relevant to the employees at the lower level. Yet how would one arrive at a composite picture of the

total organisation? It was also learnt, that the questionnaire suitable for industries in the private sector loses some of its sensitivity when used in the industries in the public sector. There is hardly any instrument which is universally applicable.

**(b) Unobtrusive Measures :**

From the discussion mentioned above, it is clear that one may have to generate new data such as perceptions and views of employees by their self reporting, activated by one or the other kind of data collection method, or by the diagnostician observing processes and events and hence discovering new data. But one may also understand that an organisation has a vast reservoir of data - dead or alive, static and dynamic, hidden and manifest. Webb, et. al (1966) drew the attention of the researchers to this rich source of data which can be used as unobtrusive measures in diagnosis. From the organisational charts, various records, documents, written communication, files, minutes of the board room and bills, to the size of the table, colour of the telephone, the design on the carpet, air-conditioner in the room - a wide range of data source is there for an imaginative diagnostician to use. One may encounter problems in coding and analysis - the quality may be poor, consistency, particularly overtime, may be lacking, systematic recording may be absent.

Often the data one collects through the usual methods are contaminated by reactivity - the respondent knows that he is in the study and he reacts. Unobtrusive measures try to eliminate this contamination, but face the problem of validity. In the future the most promising of all areas seems to be the area of physical equipment of gadgets. Two-way mirror, sophisticated photography, ultrasonic devices, transmitters, cassette recorders and various other super electronic miniaturised instruments that are in use or will be developed, will have a great impact on the technology of data collection. What was to be found in science fiction or in a spy thriller may enter into organisational research.

Unobtrusive measures require imaginative identification of data and planning of its collection. It also requires imaginative linkage in interpretations. Notwithstanding its limitations, unobtrusive measures offer great scope to the diagnostician. Recently Webb and Weick (1979) have reminded the investigators to turn ceremonial citations into substance.

## **7.5 INSTRUMENTS OF DATA COLLECTION**

Instruments required for data collection depend essentially on the variables identified for study. The nature and characteristics of the data indicate the type of instrument to be used. If the diagnosis starts from the final outcome variables, like performance or satisfactions, one would immediately recognise the need for different instruments. Many of the performance variables, like productivity, profit, etc. can be measured by archival data. But, for collection of data from archives and for unobtrusive measures, there cannot be a set pattern. The researcher's background of the diagnostician may be of some help to him in formulating his own instruments. Similarly there is no ready-to-use tool for collecting data on most of the variables in economic and technical sub-systems. Yet for many diagnosticians these are the substantive data. There is also no set tool for collecting data on many of the dynamic processes operating in the organisation. Because the diagnostician has to use his own ingenuity in developing his own instruments for data collection, the validity and reliability of the instruments suffer; inter-organisation comparison becomes difficult, and generalisability becomes limited. Partly as a consequence of this, it has become difficult to delineate

the syndromes of illness, to cluster the symptoms of a particular disease together and to accord a label or a name to syndrome for ready reckoning of a particular organisational illness as the medical diagnosticians have done.

Some instruments are available when the domain of diagnosis is the social system and its interface with other domains. Most of the investigators have designed one or the other instruments. To mention some of the instruments one likes to cite Likert (1961, 1967), Taylor Bowers (1972), Levinson (1972), Litwin and Stringer (1968) Van de Ven and Ferry (1980) amongst others.

In India, Pareek and Rao (1974) have prepared a directory which provides exhaustive lists of different types of instruments developed and used in Indian organisations as well as those adapted to suit Indian conditions.

Chattopadhyay (1975) developed an instrument for measuring organisational environment, which has been revised several times, and has been included in an earlier unit. This has been used in different Indian organisations both for research and diagnosis purpose. The instrument is used for comparison with some other instruments at Faculty of Management Studies, Delhi University and IIM (Ahmedabad) has been marked for its sophistication, validity and sensitivity.

Another instrument MAO (C) - Motivational Analysis of Organisation (Climate) which has been used in different organisations is by Parkeek (1977) who has developed a number of other instruments on different aspects of organisational functioning like instruments on role efficacy, role effectiveness, etc.

One feels that there is an immense scope for the construction of good instruments on various aspects of organisational life and functioning in India which have hitherto remained quite neglected.

## **7.6 OVERVIEW OF METHODS :**

Some of the methods generally followed are given in the Exhibit. The methods can be classified along two dimensions (a) the relationship between diagnostician and client organisation, and (b) on the nature of the methods.

- (a) The relationships are normally of three types : (1) diagnostician plays the active, dominant role : where conceptualisation, data generation, analysis and interpretation and convergence of ideas to delineate the problem revolve around him. The client's involvement is only to the extent of providing data from within himself, or from the organisation - from the records, files and books in the archives, or by providing the entry to the situation where the diagnostician collects the data directly; (2) diagnostician and client both are interdependent in a mutually participative manner. In this situation both may work together through the entire process of diagnosis or they may apportion the work between themselves and share with each other at selected phases; (3) the client plays an active role and the diagnostician plays a supportive role - diagnostician often creates a situation where the client conceptualises, generates data, analyses and interprets and formulates the problem.
- (b) The nature of the methods can be of two types, (1) the methods may be more



structured, instrumented, mechanistic, following the rules of scientific methodology with rigour; and (2) the methods may be less structured, more open, more organic.

Though the present practice of organisation diagnosis mainly follows diagnostician - active structured method's the desirable trend should be movement towards client active, less structured organic methods or in the diagnostician-centred method, the diagnostician plays a central role though he is an outsider and it is likely that he may not be aware of the entire range of organisational dynamics or grasp the full significance of it. His expert power in science may create a distance between him and the clients. Science and scientific research have a tremendous prestige value. The prestige and power that are bedded in science, besides its functional contribution, are also reasons why science is being utilised for top-level diagnostic work in public and private institutions. Operations research, management science, and systems analysis, engineering as well as social sciences have brought science into the diagnosis process. But one should realise what Ackoff (1962) has stated beautifully :

... Most complex management problems cannot yet be completely analysed by science : not all the factors can be handled quantitatively. In almost all broad management problems the solutions offered by science are conditional, and the conditions that pertain must be established by managerial judgement based on long experience with the factors involved.

The extension of this logic naturally indicates the need for organisational members to get more actively involved in diagnosis. With their involvement they may develop a sense of ownership of the diagnosis and commitment to solve the problems. This will make them aware of the sensitive to process and encourage them to equip themselves better to undertake diagnosis on their own. Self-reliance of the client system is the preferred value for both the diagnostician and the organisation.

Moreover, a diagnostic method may constitute an intervention in the organisation. The people that are interviewed and the questions that are asked and the fact that something is happening there make a certain impact on the ongoing dynamics of the organisation. There are mainly two alternative courses open; to depend mostly on unobtrusive measures or involve the people in the organisation such that the process is open and speculation is less.

### Diagnostic Methods

#### *Relationship between Diagnostician and Client Orientation*

Nature of Methods	Diagnostician active, Client passive	Mutually participative	Diagnostician Passive, Client active
More structured, rigorous	<ul style="list-style-type: none"> <li>Experiments</li> <li>Survey</li> <li>Interview</li> <li>Questionnaire</li> <li>Observation</li> <li>Models</li> <li>Management games</li> </ul>	<ul style="list-style-type: none"> <li>Confrontation</li> <li>Meeting</li> <li>Self Observation</li> <li>Self Observation central signalling</li> <li>Diaries</li> <li>Self Reports</li> </ul>	<ul style="list-style-type: none"> <li>Organisation mirror</li> <li>Image Sharing</li> <li>Inter-role exploration</li> <li>Motivation development lab</li> <li>Instrumental lab</li> </ul>

	<ul style="list-style-type: none"> <li>• Content analysis</li> <li>Contentless analysis</li> <li>Sociometry Interaction</li> <li>Process analysis</li> <li>Interpersonal behaviour analysis,</li> <li>• Small group</li> <li>Interaction analysis,</li> <li>• Motion Study,</li> <li>• Record study,</li> <li>• Study of charts, graphs, documents, files</li> <li>• Unobstrusive measures.</li> </ul>	<ul style="list-style-type: none"> <li>Time budgets</li> <li>Action research</li> <li>Group feedback analysis.</li> <li>• Survey feedback</li> <li>Top Manager's</li> <li>• diagnostic meeting</li> <li>• Diagnostic committee</li> <li>• Critical incidents analysis</li> </ul>	
Less structured, organic	<ul style="list-style-type: none"> <li>• Participant observation</li> <li>• Semiprojective techniques</li> <li>• Projective techniques.</li> <li>• Process observation</li> <li>• Clinical study.</li> <li>• Psychological interpretation of events, episodes.</li> </ul>	<ul style="list-style-type: none"> <li>• Survey-case-analysis feedback</li> <li>• Corporate-excellence diagnosis (Post T-Group)</li> <li>• Family group diagnostic meetings.</li> <li>• Process analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Motivation development</li> <li>• Family T-Group OD Lab</li> <li>• Unstructured interview (Clinical) Sensing Family group-diagnostic meeting.</li> </ul>

## 7.7 SELF ASSESSMENT TEST / QUESTIONS :

- 1) Describe the factors to be considered for diagnostic methodology.
- 2) Explain different approaches used for diagnosis.
- 3) What are the problems involved in the collection of Data? Explain.

## 7.8 FURTHER READINGS :

Ackoff, Russel, L., Scientific Method : *"Optimising Applied Research Decision."* P. 242. New York : John Wiley, 1962.

Bhattacharya, S.K. Somnath Chattopadhyay and Subroto Sengupta, *"Management Consulting : Its Present Status and Future Directions in India"* Ahmedabad, IIM (Unpublished), 1980.

Chattopadhyay, Somnath and K.G. Agarwal, *"Organisation Development in Hospitals"*. New Delhi : National Institute of Health Administration and Education, 1976.

- Chattopadhyay, Somnath *"Organisational Environment Questionnaire."* Delhi : Manasayam, 1975.
- Downey, H.K. and Irland, R. Duane, *"Quantitive Versus Qualitative : the case of environmental assessment in organizational studies."* Administrative Science Quarterly, 1979. 24.4.630, 637.
- Lawler, E.E., D.A. Nadaler and C. Cammann, " *Organisational Assessment : perspectives on management of Organizational Behaviour and the Quality of Work.*" Li. New York : John Wiley, 1980.
- Levinson, H., *"Organizational Diagnosis"*, Cambridge : Harvard U. 1972.
- Likert, R., *"New Patterns of Management"*. New York : McGraw Hill, 1961.
- Likert, R., *"The Human Organization."* New York : McGraw Hill. 1967.
- Litwin, G.H. and R.A. Stringer, Jr. *"Motivation and Organizational Climate"*, Boston : Graduate School of Business Administration, Harvard Univ. 1968.
- Miles, Mathew B. *"Qualitative data as an attractive nuisance : The problem of analysis."* Administrative Science Quarterly, 1979 24, 4, 590 - 610.
- Pareek, Uday and, T.V. Rao, *"Handbook of Psychological and Social Instruments"*, Baroda Samasthi, 1974.
- Pareek, Uday, *"Motivational Analysis of Organization"*, Ahmedabad, IIM, 1977.
- Rigby, Paul H., *"Conceptual Foundations of Business Research"*, P. 85., New York : John Wiley, 1965.
- Selltiz, C., L.S. Wrightsman and S.W. Cook, *"Research Methods in Social Relations"* New York : Holt, Rhinehart & Winston., 3rd Edition., 1976.
- Taylor, J.C. and D.G. Bowers, *"Survey of Organisations"*. Ann Arbor, Mich : ISR, Univ. Michigan 1972.
- Van De Ve Andrews H and L. Ferry *"Measuring and Assessing Organizations"* New York : John Wiley, 1980.
- Webb. E.J., D.T. Campbell, RD. Schwartz and L. Sechrest, *"Unobstrusive Measures."* Chicago : Rand McNally, 1966.