CHAPTER 5

5. THE DESIGN OF THE ENVISAGED MODEL OF INDUCTION FOR THE BEGINNER TEACHERS IN BOPHUTHATSWANA WITH SPECIAL REFERENCE TO HIGH SCHOOLS

5.1 INTRODUCTION

The purpose of this chapter is to design a model of induction which will be suitable for implementation in Bophuthatswana. Before this model is designed, however, a full background study of the existing models will be presented.
The steps important in designing a programme will be discussed, so as to provide a background for procedure to be followed in designing a model.

These steps are, according to Land (1989: 9):

- Formulation of a policy: Before the stages for implementing an induction programme are discussed, a decision for providing such a programme has to be reached.
  This has to be taken at a higher level of authority. The formulation of a policy and its translation into a programme will subsequently be briefly discussed in this chapter.

- Implementation: Implementation is another concept or idea that will be given priority in this chapter. Implementation stages will also be discussed with an eye on what research says of the implementation of a new model. These will provide guidance on the steps to follow in implementing a programme or model for the induction of the beginner teachers in Bophuthatswana.

- Evaluation: As evaluation is important during and after the implementation and also for programme growth, the administrative personnel should provide formative and summative evaluation of the envisaged model. As a form of guidance, research on evaluation of programmes has been studied.

  The important aspects that have been discussed in the researches studied, will be briefly discussed in this chapter. These evaluation steps will be helpful in evaluating the envisaged model designed for Bophuthatswana.

- Institutionalisation: Institutionalisation is concerned with where the model programme will take place. In this study the envisaged model will be instituted in schools. Once the programme has been instituted into the organisational setting of the schools, and the users are made aware of it, the negative attitude of outsiders

will hopefully be diminished. The research on institutionalisation has shown that there are stages to be considered in institutionalising a programme, and in this study, these stages will be discussed and used. Thereafter the selection for a model for Bophuthatswana will be structured.

Finally, in discussing all the above, the definitions of key or leading concepts will be given priority, so as to bring about a clear meaning of how the concepts will be used in this chapter.

5.2 THE CONCEPT MODEL

According to Casciano-Savignano (1978: 16) the word 'model' in an educational context is used to represent something which is usually highly complex. He further stresses that the model is a simplified and symbolic representation of that something. Because it is simplified it rarely reflects all the details of the system it represents.

In the same vein, Malkevitch and Mayer (1974: 20) define a model as reflecting details of the reality it represents, while, for the sake of simplicity or economy, leaving some things out. The simplest function of a model is to give us some idea of what reality is like.

The same feeling is shared by Hopkins (1985: 4) who maintain that models are about something, they purport to represent an aspect of something that exists, or might exist, in the world.

Similarly, Land (1989: 29) reflects that a model as a simplification of reality should not be confused with the study of the real world. The model, according to Land, contains only what the designer puts into it. The real world contains more than one can ever define. Land further maintains that no model can be an exact replica of its subject, but a useful model identifies and simplifies strategic variables so as to produce a fairly good, never perfect, fit between the effects in the arena of the observation and the effects obtained by manipulating the symbol in the model.

5.2.1 THE PURPOSE OF A MODEL

The purpose of modeling was reaffirmed by Land (1989: 37) and went further to describe briefly why the use of models is so valuable. He maintains that real life phenomena are generally so complicated in relation to man's ability to comprehend them fully, that he cannot hope to understand them without first taking steps to simplify the hypothesis.

He further argues that the moment this is done, the realm of the real world is left and that of the idealised world entered. This according to Land, is the starting point of establishing a model.

Models are heuristic devices meant to facilitate the entire scientific process, from concept formation to research design. They are really developed to represent the full complexity or substance of concrete phenomena. They are intended as reflexive and simplified representatives of the most salient features of the phenomena under study and as such, they can guide theory and research in fruitful directions (Nixon, 1979: 27).

The same feeling is shared by Hopkins et al. (1985: 4) who cited that models are designed for a purpose. Sometimes this purpose is the improvement of a specific decision; or increasing one's understanding of some phenomena in order to advance scientific knowledge; to aid teaching and learning; or perhaps simply to satisfy curiosity. The degree of approximation that will be acceptable in a model depends upon the purpose for which it is being used.

Before a model can be used, however, it must be constructed. In constructing the model, certain criteria need to be taken into account. In the following paragraphs, these steps will be investigated.

5.2.2 FACTORS TO BE CONSIDERED IN CONSTRUCTING A MODEL

The literature consulted reflects that models are not a reality, but tentative. They are a representation of a complex reality. This according to Land (1989: 19) should always be kept in mind in their construction and use. These aspects have clearly been pointed out by Jenkins and Shipman (1976: 19) when they argue that models are only tentative and their use should be accompanied by vigilance both by producers and users. According to them few models are explicit about what they leave out. They are often also represented diagrammatically and as such, could lead to a feeling that the reality they represent is neat and graspable.

However, Van Darmolen (1982: 71) reflected that one of the first considerations to be taken into account when constructing a model is detail. According to him, if too many details are included, the model may prove to be unworkable and difficult to apply to real life situations. On the other hand, he feels that if the model is not sufficiently detailed it may not reflect the reality of the situation.

5.2.3 STEPS IN MODEL BUILDING

The following are the steps to be considered in model building, as viewed by Land (1989: 20):

- abstraction of small bits from the real world.
  Attention should be focussed on the phenomena in the real world. According to Land, certain features or patterns of behaviour are to be explained or predicted, because the examination is a perpetual one, the small bits drawn from the world do not constitute reality itself, but rather the observer's perception of reality. He also maintains that these perceptions will naturally vary according to the perspectives of the different observers.

- the second step, according to Land, is the selection of only those perceptions which can be translated into a functional model by the perceiver. The same view is held by Easterly (1978: 55) who warns that the components of a model must function in relation to each other. According to him, the real world may be distorted, either because the perceptions about it are inaccurate or the dynamic relationship of the components is somehow misrepresented in the model

- The third step in the construction process involves the

idealism of the phenomena to be represented in the model. The form is simplified and detailed thought to be insignificant is left out.

- The fourth step then, according to Land, is that the model is tested for validity. The tests applied would be dependent on the type of model used. Conclusions concerning the model are then interpreted in the real world situations and the results compared with observation, conceptualisation and data collection. Carkhuff and Berenson (1977: 31) maintain that the most important point concerning a model is not whether it works but, whether it is useful and practical. They further argue that most models can be made to work under controlled conditions, but only those that operate in the absence of these conditions will flourish.

The section next deals with the model as an innovation, and the factors that are to be taken care of if the model is to succeed.

5.2.4 A PLANNED CHANGE; AN INNOVATION PROCESS

In order for the innovative models to succeed, Bishop (1986: 3) maintains that the following four factors are to be taken as most important:

(a) The change agent: that is, the innovator, the person or group (e.g the head master, or individual teacher, or local authority or national government) that decides upon and initiates the innovation or educational change.

(b) The innovation or change itself: For example, an integral approach to learning-teaching, new methods of teaching in place of the old; or a comprehensive system of education as against the more traditional system.

(c) The user system: For example, the person or group at which the innovation is directed or targeted.

According to Bishop (1986:3) these three factors answer the simple questions;

- who (the change agent) says
- what (the innovation)
- to whom (the user).

(d) Time: Innovation is essentially a social process and takes place over a period of time.

Bishop further cited that the innovator is the change agent and should be involved with:

- the process of innovation,

- the planning of innovation,

- strategies of innovation.

Many innovations fail because innovators themselves fail to appreciate the process of innovation, and they, pay little attention to the lessons that can be learned from the process, particularly the fact that innovation is a matter of system and system building within a social context (Land,1989:19).

A further comment by Bishop (1986:4) is that most innovations go through six distinct phases:

- there is some problem, some dissatisfaction, some need, that requires attention;

- some possible solutions are considered;

- a particular solution is selected as being the most likely to meet the problem (innovation);

- this optimum solution is given a trail-run and evaluated;

- if promising, the solution is implemented on a wider scale;

- the solution is absorbed into a system, that is, it is institutionalised.

The model for the induction of the beginner teachers in Bophuthatswana that is to be designed in this chapter is going to follow most of these phases as tabulated by Bishop. These phases will be discussed thoroughly in the following paragraphs to bring about a clear picture of what they entail and how they will be used in designing the model in question.

Coupled with these phases will be the eleven elements, which according to, Bishop must be considered at each of the six phases of any innovation process. Bishop further highlighted the fact that these elements concern who does what, with what, to whom, where, when, in what manner and why, and with what effect.

These elements according to Bishop are:

- the personnel to be employed (who);

people available all along the line who have the expertise and capacity to carry out their allotted tasks;

- the specification of what the actual task is (what), i.e what has to be done, what the innovation in action consists of, its size and its scope, the role of new teachers, mentors, and principals;

- the method, the strategy or procedure to undertake the task (how) i.e., is the change to be effected by a formal, legislative approach, requiring the individuals to act in accordance with new regulations ? OR, is change going to be effected by a more natural approach, relying on the new idea diffusing and gradually catching on, the process being helped along by advisers ?;

- the equipment needed, (with what);

- the plant, i.e buildings or environment (where);

- the cost entailed;
  Often planning is based more on aspiration that on realistic analysis of available resources. The cost not only of initial trials but also the full implementation costs of any innovations;
- other social context on which the innovation impinges;

It is wise and perhaps essential to gain the cooperation of interested parties, especially if they are powerful, who might otherwise regard their territory or prerogative as being violated or threatened;

- the time involved, (when and for how long);
  Innovations take time. People and social systems are generally slow to welcome changes, which they often regard with suspicion. So, it is better that in doing this one should not make hasty decisions;

- the rationale for undertaking the innovation (why)
  What are the justifications for the particular approaches used in the operational phase;

- the evaluation of the consequences or effects resulting (with what effects); This is according to Bishop, the 'moment of truth' when either a thumbs up' or 'thumbs down' decision has to be taken on whether or not to go ahead with the innovation.

5.3 INNOVATION STRATEGIES/ MAIN IMPLEMENTATION SCHOOLS

5.3.1 INTRODUCTION

Innovation is a process, a continuous and complex negotiation between people involved in establishing new ideas and practices (Bishop, 1986: 6).
An innovation involves drawing up a model that can be followed, and not only describe what should and should not be done. In the foregoing paragraphs, the stage was set for an in-depth study of the models that exist. These models are studied so as to find out which of their aspects can be used in the model to be designed for Bophuthatswana.

Before investigating these strategies or models the meaning of 'strategy' will be briefly given and the look at the four strategies of how a change can come about will be studied.

5.3.2 MEANING OF STRATEGY

Strategy is the available procedures and techniques used by individuals and groups at different levels of the educational system to attain desired objectives (Bishop, 1986: 15).
Bishop, further cites that a strategy is a deliberate attempt to engineer innovation.

Looking at the definitions as cited by Bishop a conclusion can therefore be reached that for an innovation to be carried out effectively, there should be strategies that are to be employed in engineering that innovation.
Having defined the strategy, the next will then look at the models of change as described by Havelock (1979: 25).

Havelock identified four models, and these models are as follows:

1. The Research, Development and Diffusion Model (R,D & D), where an innovation is conceived at the head or centre, for example, at a central planning unit, and then fed into the system.

2. The Social Interaction Model, where change proceeds through contrasts, formal and informal, among interested individuals or groups of people.

3. The Problem-Solving Model, where the users themselves are involved in conceiving, initiating and developing innovation at the local level.

4. The Linkage Model, where intermediate agencies, e.g teachers' centres etc., link together the centre and users (e.g the school) involved in the innovation process.

The next section will discuss the strategies as identified by Havelock, and then take one model that has been used by some researchers, and analyse it, then give the advantages and disadvantages of these strategies of innovation. This will ultimately help the researcher to decide what model or combination of models can be used in designing the model envisaged in this study.

5.3.3. THE RESEARCH, DEVELOPMENT AND DIFFUSION PERSPECTIVE

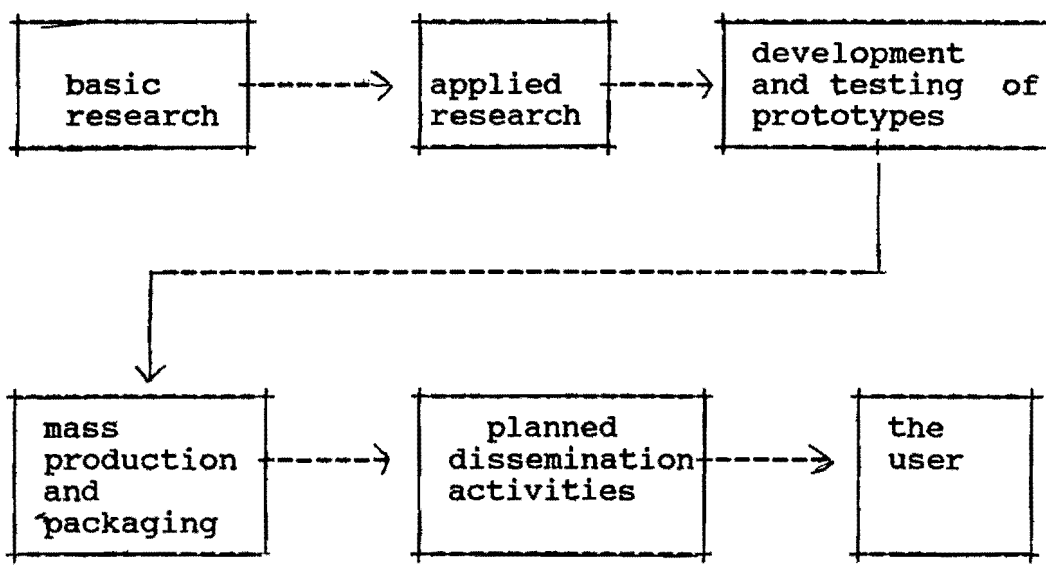
5.3.3.1 INTRODUCTION

" If knowledge is there, the user will be found for it" Havelock (1979: 25). This is so because according to the above quotation by Havelock, this strategy is successfully used where the users simply receive information, knowledge and expertise that they lack. In the same vein, Land (1989: 42) maintains that this strategy regards the process of change as a rational series of activities in which an innovation is discovered or invented, then developed, produced and disseminated to the user.

Havelock (1979: 42) further asserts that this system, taken as a whole, seems to exemplify the orderly transition of knowledge from the research to development to diffusion and finally to adoption by the 'consumer'.

Figure 5.1 gives a clear illustration of the process.

FIGURE 5.1: THE RESEARCH, DEVELOPMENT AND DIFFUSION PERSPECTIVE (RD & D)



As indicated in the introductory part of this section, only one model that has used the (RD & D) strategy will be used and that will be that of Guba and Clark.

5.3.3.2 THE GUBA-CLARK MODEL

This model is taken from Land (1989: 48). According to Land, this model concentrates on the sequence of change and includes four major phases or areas of activity.

- Research: The objective at this stage is to advance or extend knowledge through basic research.

- Development: This stage is further sub-divided into two sub-stages.

- Invention: The objective at this stage is to "formulate a new solution to an operating problem, or to a class of operating problems, that is, to innovate" (Havelock, 1979: 40). This may be based on research, experience or even on intuition, and should be evaluated in terms of its validity or appropriateness, its estimated viability (ability to survive under normal circumstances), and its impact or potential significance.

- Design: The purpose of this stage is "to order and to systematise the components of the invented solution into an innovation package suitable for institutional use". The results of this activity are evaluated in terms of the institutional feasibility, the generalisability and the performance of the innovation.

- Diffusion: This phase refers to creation of wide-spread public awareness of the envisaged innovation. According to Miles (in Land, 1989), diffusion is a process by which an innovation spreads, it entails communication or the dissemination of an idea and culminates in its adoption by the individual. Land (1989:46) defines diffusion as the process through which a new idea or product becomes accepted and assimilated, that is, adopted by an individual, a group or a system.

- Dissemination: The purpose of dissemination is to create widespread awareness of the invention amongst potential users. Dissemination activities are evaluated according to their intelligibility, fidelity, pervasiveness, and impact of message.

- Demonstration: Here the objective is to afford an opportunity to examine and assess the operating qualities of the invention. The demonstration is evaluated in terms of its credibility, convenience (accessibility to users), and honesty (illustrates all factors, both positive and negative), to potential users.

According to Land (1989: 46) there may be activities at the diffusion level which involve the diffuser more directly in the affairs of the potential user of the innovation:

- Helper: Helping the user by acting, for example, as a consultant.
  - . Involvement - involving the user in the process of problem identification, development, testing, and packaging of the innovation and diffussing it to others.

  - . Training - providing training to the user of the innovation.

  - . Intervention - intervening in the user system to the extent of making certain activities mandatory.

- Adoption: This final stage is further sub-divided into:
  - . Trial - the purpose of this stage is to familiarise the potential user with the new innovation and provide opportunities to assess the worth of the innovation. Evaluation at this stage is in terms of adaptability of the innovation, its operational feasibility and its performance, in the local user situation.

. Installation - if the trial is successful, the next step is to install the innovation into the existing system. The criteria for evaluating successful installation are in terms of their effectiveness and efficiency.

. Institutionalisation - this process involves ensuring that the innovation becomes an integral and accepted part of the system. It is evaluated in terms of its continuity, the degree to which the innovation is valued and the support given to it at the local user level.

Having looked at the model in the foregoing pages (Guba-Clark) the Research, Development and Diffussion Model is taken to be a highly organised systematic and rational approach to innovation, founded according to Bishop (1986: 17) on the following logical sequence of activities:

- The basic research (as in industry) by a central team which plans and develops the innovation.
- Trials of the innovation by users.
- Planned mass dissemination or diffusion of the innovation, by conferences, workshops, courses, etc.
- Implementation of the innovation by users.

This summary of the activities of the RD & D Model will now lead to a review of the advantages and disadvantages of this strategy as found in the literature that was consulted.

5.3.3.3 THE ADVANTAGES OF THE RD & D MODEL

As evidenced by Bishop (1986: 17), RD & D strategy is a development agency at the centre which produces packaged solutions for the users at the periphery (schools and teachers). Hence, according to him, this approach is also known as the 'centre-periphery' or 'top-down' approach.

One obvious advantage of RD & D strategy is that the more talented and experienced teachers and experts are more likely to be found at the 'centre' of an educational system, and this expertise can then be utilised for the benefit of the whole system.

5.3.3.4 DISADVANTAGES OF RD AND D MODEL

Bishop, further states that:

- users (e.g teachers) are involved in the development process only to a limited extent; they are passive recipients of the change proposed for them by some distant agencies;

- because of high degree of centralisation, local needs and variations are often neglected.

To this list Land (1989:49) adds the following disadvantages:

- at the local level, it does not explain why some innovation efforts are successful while others fail.

- experience has shown that there is little relationship between the first-stages (knowledge, persuasion, decision and implementation) and the ultimate extent of adoption.

- the RD & D strategy, assumes the transferability of innovation experience from one site to another.

- It assumes a passive role for the adapter or user of an innovation.

Land, further commented that the disadvantages listed in the foregoing lines overlooks factors such as;

- The adapter may have contrary or conflicting interests to pursue and hence an entirely different set of incentives than is assumed.

- The innovation may require substantial redesigning to make it suitable for local organisational needs.

- There may be resistance in some parts of the local organisations to the use of the innovation.

- Implementation may simply not have been completely guided or monitored.

The basic features of an organisation and its local setting, as well as the manner in which an innovation is introduced, may even outweigh the importance of research, development and diffusion (Land,1989:50).

He further revealed that:

- The RD & D approach assumes the dominance of the technology and ignores implementation and is therefore not successful with projects that involve people, since people do not react in ways which can be predicted when faced with situations which are not familiar.

- The RD & D strategy is biased toward the environment external to the innovation organisation. For example, it gives greater attention to producing and diffusing new RD & D products in the market place than to the conditions within the innovating organisation.

- The process of research-development-diffusion is assumed to be linear. Experience has shown that this is not always the case.

- At the macro-level it tends to skim lightly over the critical events within a given organisation. It therefore shows a superficial concern for routinisation, in that, it contributes few insights into specific decisions, procedures and organisation behaviour that occurs as a specific innovation becomes routinised at a specific site.

5.3.4 THE PROBLEM-SOLVING STRATEGY (P-S)

5.3.4.1 INTRODUCTION

This strategy is essentially a user-centered one. People have within themselves most if not all the ideas, resources and energy to bring about change (Bishop, 1986:18). In this strategy, users are given priority; they are active and not passive recipients. Land (1989:51) maintains that in this strategy the needs of the user or client, whether implied, stated or assumed, are the focal point.

Backing up Land's view, Bishop (1986:18) cites that the user identifies a need and this need is translated into a problem statement which is then diagnosed; these possible

user identifies a need and this need is translated into a problem statement which is then diagnosed; these possible solutions/innovations are considered and the best alternatives selected.

This optimum solution/innovation is trialled and evaluated for its effectiveness; if satisfactory, the solution/innovation is adopted and implemented.
Researches have been conducted with regard to the problem-solving strategy and many implementation strategies discovered thereof, for this study, however, only the Lippett, Watson and Westley model as found in Land (1989: 52) will be dealt with in detail as it seems to be the one relevant to this study.

5.3.4.2 THE LIPPETT, WATSON AND WESTLEY MODEL

Land (1989: 52) identified seven stages in the Lippett, Watson and Westley Model, and theses are given as:

- **The Development of A Need for Change:**
  The problem creating stress in a system must first be translated into a problem awareness. This is not always easy as different members of the system will have different perceptions of the problem. This must be followed by a desire for change and finally there must be a specific desire for help from an outside agency.

Land further points out that this first phase of recognising a need for change, may occur in one of the three ways that follow:

. The change agent locates a source of difficulty and offers help.

. A third party brings the person/system experiencing the problem and the change agent together.

. The system experiencing the problem itself seeks help from an outside source.

- **The Establishment of a Change Relationship:**
  This phase is considered crucial for successful change as it involves the establishment of trust between those involved in the change process and the setting up of effective communication links between the change and the client.

- **The clarification or Diagnosis of the Client System Problem:**
  This stage, according to Land (1989) involves the gathering of information concerning the problem
  (a process which may be easy and straightforward or may be lengthy and tiring),

analysing it and coming up with a diagnosis (which may or may not be acceptable to the client system).

- **The Examination of Alternative Route and Goals; Establishing Goals and Intentions of Action**

  The ideas gained in the previous phase are translated into ideas for action and then into intentions to carry out the ideas in a certain way. Problems likely to be encountered in this stage are cognitive problems, as various alternative paths are explored, and motivational problems, once it becomes necessary to endorse a plan of action.

- **The Transformation of Intentions into Actual Change Efforts**

  This step is also crucial to the successful solution to the clients problems, because in order for the original stress to be eliminated, plans and intentions must be transformed into achievements. A serious problem to be faced at this stage is that of fear of failure.

- **The Generalization and Stabilization of Change**

  For change to be considered successful, it must remain a stable and permanent part of the system.

  This is more likely to happen if the innovation provides

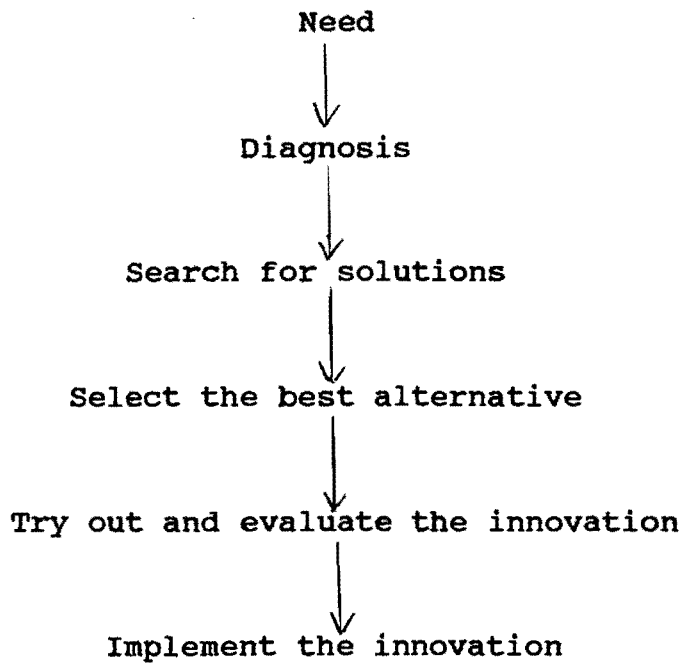
adequate reward to the system

- **Achieving a Terminal Relationship**

  The relationship between the change agent and the client could be terminated as early as the stage involving the examination of alternatives routes and goals but the longer the relationship lasts, the greater the chances of successful implementation of the new innovations.

The Problem Solving-strategy is summarized by Bishop in the following figure (see figure 5.2).

FIGURE 5.2 The Problem-Solving strategy



Source: (Bishop, 1986: 20)

This strategy advocates for the user to depend on the change agent and this is not healthy and might create problems at the end of the innovation. this can only be solved by keeping the change agents in a consultative capacity.

Land (1989: 56) describes the phases of planned change in education, which he feels are designed to solve both specific problems and to utilize scientific knowledge so as to contribute to an orderly and creative process of change.

Figure 5.3 shows clearly the interdependence of expert resources and the user system which are designed to ensure successful utilization of scientific knowledge.

FIGURE 5.3 RESEARCH UTILIZATION PROBLEM-SOLVING MODEL

According to Bishop (1986: 19) the problem-solving strategy is a 'bottoms-up' approach, because as he cited it is a grass roots innovation developed as a result of local initiative.

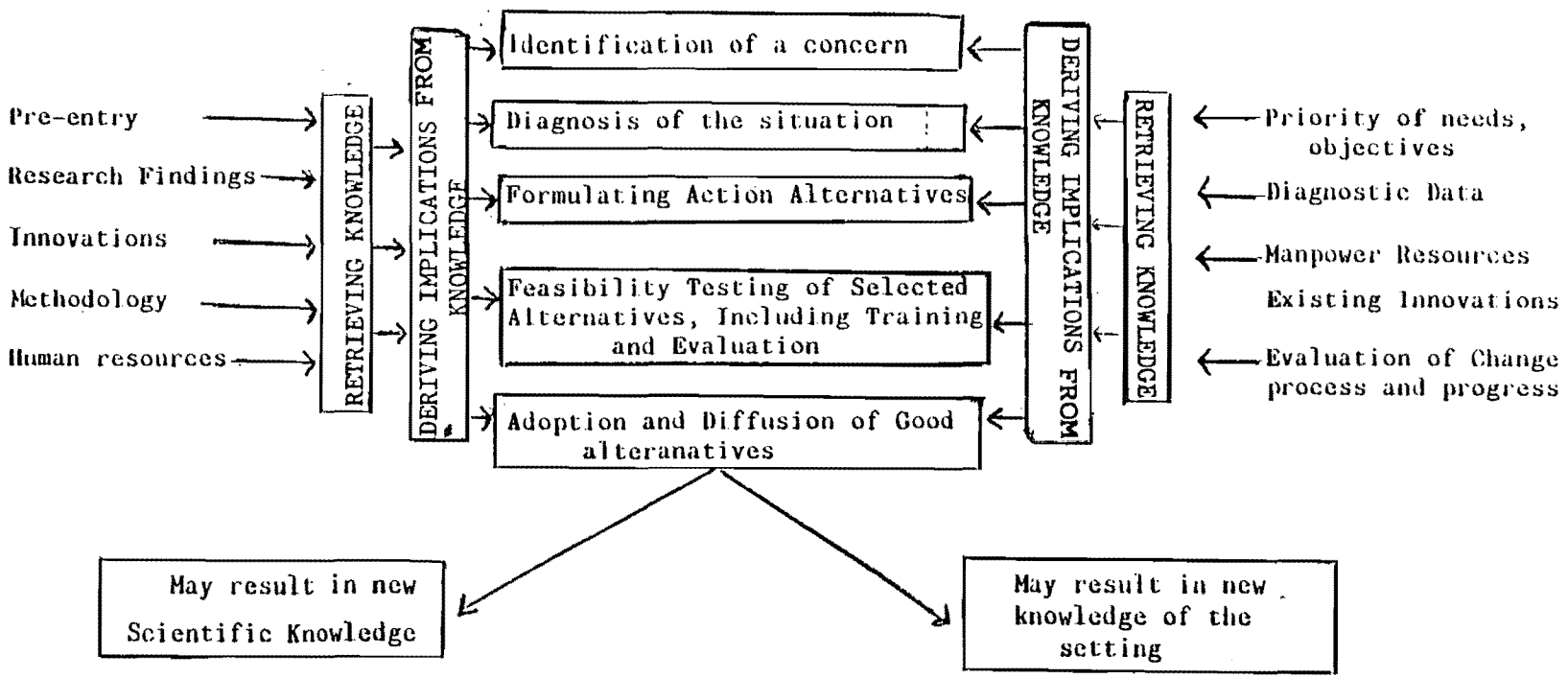
In his study, Land (1989: 58) has clearly given the aspects that are advocated by the Problem-Solving strategy. These aspects as spelled out in Land are:

- the client-user need is of prime concern and the only acceptable stance for the change agent. The change agent bases his whole interaction with the client on this basis.

  Similarly, Nicholls (1983: 17) maintains that what the user needs and what the user thinks he needs are the primary concern of any would-be helper;

- the diagnosis of the need has to be an intergral part of the whole process;

FIGURE. 5.3 : THE RESEARCH UTILISATION PROBLEM - SOLVING MODEL



Source : (Land, 1989:57)

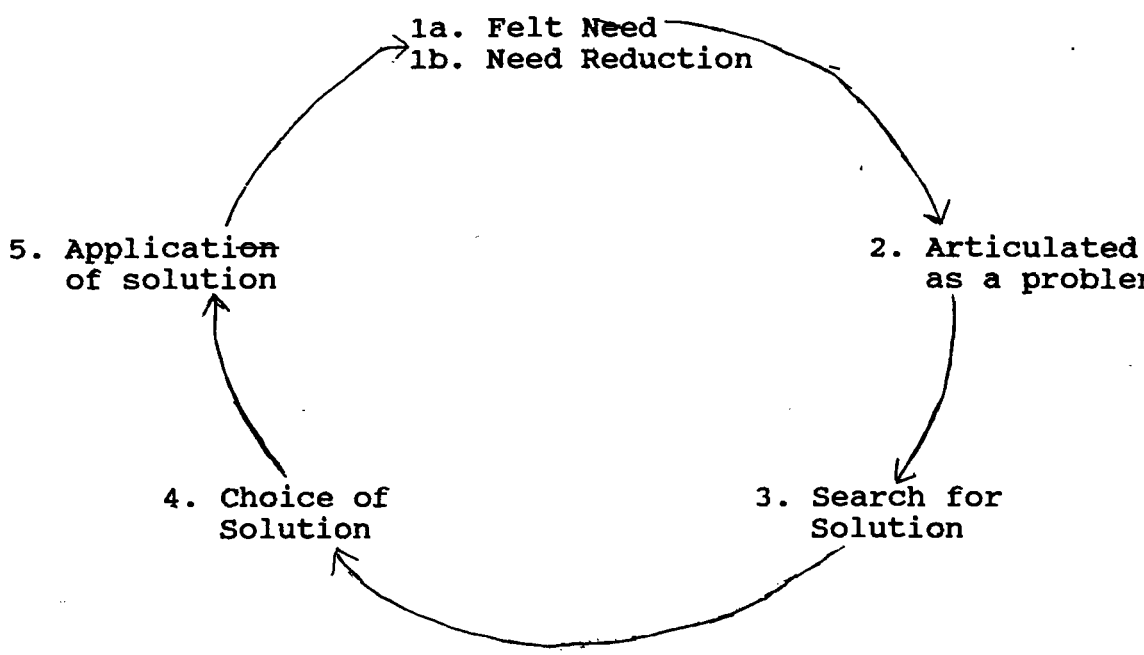
- the outside agent must be non-directive, and should seldom, if ever, violate the integrity of the client-user by being directive or by placing himself in the position of an expert;

- the internal resources, i.e those already in existence and available within the client-user system itself, should always be fully utilized;

- self-initiated and self-applied innovations have the strongest client-user commitment and the best chance of long term survival;

According to Land (1989: 58) there are process stages in the problem-solving strategy. These stages, according to him, may be viewed as a cycle. The following figure reflects these stages (see figure 5.4):

FIGURE 5.4: THE NEED REDUCTION CYCLE



Source: Land (1989: 59)

These stages as cited by Land (1989) start with a need as identified by users (1a) and this need is taken as a problem (2). A search for the solution is sought (3). Among the solutions that are found a choice of that which will be able to solve the identified problem is made (4). After selecting this choice it is then applied (5). If the solution is appropriate it will then be able to reduce the need as identified, but, if the solution identified does not satisfy the need, then the process is repeated until the solution to the need is identified.

The problem-solving strategy has been reviewed, and this will be curbed by briefly reviewing the advantages and disadvantages of this strategy.

5.3.4.3: THE ADVANTAGES OF PROBLEM-SOLVING STRATEGIES FOR SCHOOLS-BASED INNOVATION

According to Nicholls (1983: 18) the problem-solving strategy takes us into the field of school-based innovation. According to him, the origin of the problems to be solved and of their solutions is to be found within the school itself. As such, innovations developed to solve such problems will have certain definite advantages and disadvantages.

He identifies the following advantages:

- They will have greater teacher commitment and therefore, more chance of long term survival.

- Innovations based on Problem-Solving will by definition be appropriate for the system in which they have been developed and therefore likely to fulfil the needs of the that system without there being any clashes with the policy or administrative procedures.

The following are the disadvantages of this strategy as identified by Land (1989: 60).

5.3.4.4 THE DISADVANTAGES OF PROBLEM-SOLVING STRATEGIES FOR SCHOOL-BASED INNOVATION

Nicholls (1983: 18) has identified the following disadvantages of the problem-solving perspective:

- the head master and his staff, although only 'temporary incumbents of a public institution' may impose their own values on a school;

- school-based innovations, because they are planned and implemented by a small number of people, may easily be narrow and not take into account the needs of the wider society (different needs, different cultures, different aspirations);

- those involved in the planning of the innovation may not be experts in the field;

- new innovations are rarely, if ever, likely to be based on research. The problem-solving strategy assumes that any planned innovation is based on previously carried out research. According to Nicholls, research has shown that: teachers gave no attention at all to the educational principles underlying the major dimensions of the innovation, let alone engaged in any research.

the innovation, let alone engaged in any research.

Land (1989: 60) further cites the fact that, as a consequence, the innovations tend to be superficial.

- Schools seldom call in the assistance of outside agents.

- The problem - solving strategy lacks operational criteria and hence, is unable to support empirical research.

- The problem-solving strategy creates a need to define specific organisation end states, by which to gauge the effect of the innovation effort. For example, in behaviour changes and improvement in service performance.

5.3.5 THE SOCIAL-INTERACTION STRATEGY

The social-interaction strategy is the third strategy that is to be described and discussed as part of this study.

5.3.5.1 INTRODUCTION

Social-Interaction is the usual way by which ideas and practices are diffused through society, by informal contacts between interested individuals and groups (Bishop, 1986: 18). He further asserts that this strategy usually takes the form of convincing people of the values and usefulness of an

In the same vein, Land (1989: 62) adds that in this strategy the innovation is brought to the potential user. The potential user and his needs are determined, not by himself, but by someone else. His reaction to the innovation presented to him, determines subsequent stages. Any interest shown leads to a succession of steps culminating in the acceptance or rejection of the innovation.

According to Land, the receiver moves through the process by means of a process of social interaction with members of his group. The success of the different processes therefore, depends very much on the channels of communication. He stresses the fact that this strategy stresses the importance of opinion leadership, personal contact and social relationships.

The description of the social interaction (S-I) strategy is given in the following paragraphs and the characteristics of this strategy will also be viewed after the model that is used as an example of this strategy has been investigated.

The figure that follows gives the phases of this strategy as viewed by some authors and researchers.

As Roger's 5-stages process is the one intensively using the social-interaction strategy, it will be used to show what is meant by the many terms used.

Next, the advantages and disadvantages of the (S-I) strategies will be discussed.

5.3.5.2: THE ROGER'S MODEL

Rogers has identified five stages in the use of social intergration strategy, and he states these as follows:

- Knowledge: Knowledge concerning the innovation is gained by the individual or organisation when they are exposed to its existence. Some knowledge of how the innovation functions is also gained at this stage.

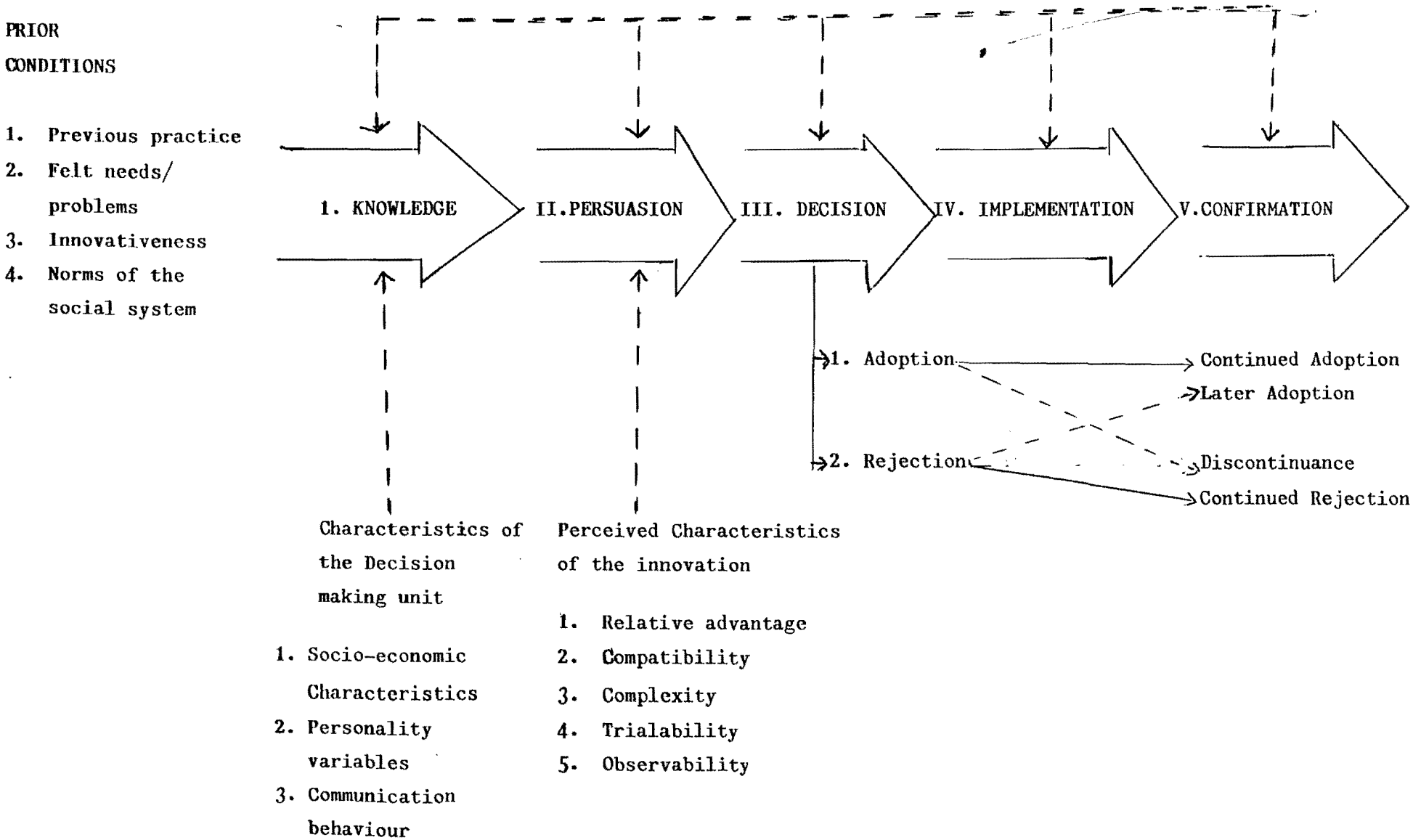
- Persuasion: During this stage, the individual or organisation forms a favourable or unfavourable attitude towards the innovation.

- Decisions: Decisions occur when an individual or decision-making unit engages in activities that lead to a choice to adopt or reject the innovation.

- Implementation: Occurs when an individual or decision-making unit puts the innovation into use.

- Comfirmation: It occurs when an individual or decision making unit seeks reinforcement of an innovation; the decision has already been made, but he/she may reverse this previous decision if exposed to conflicting messages about the innovation. Figure 5.5 gives a clear picture of this stage of the innovation-decision process.

FIGURE 5.5: A MODEL OF STAGES IN THE INNOVATION-DECISION PROCESS



Source: (Roger, 1983:165)

According to Land (1989: 67) the innovation-decision process through which an individual (or other decision-making unit) passes is from first knowledge of an innovation, to forming an attitude towards the innovation, to a decision to adopt or reject, to implementation of the new idea, and confirmation of this decision.

The next section looks into the characteristics of the social -interaction strategy in detail.

5.3.5.3 CHARACTERISTICS OF THE SOCIAL-INTERACTION STRATEGY

- The individual user or adapter belongs to a particular network of social relations which has a marked influence on his adapter behaviour.

- His position or place within the network (centrality, periphery, isolation) is a good prediction of his rate of acceptance of new ideas.

- Vital to the process of influence on the adapter and the adoption process is informal personal contact.

- Group members and reference group identification are major predictors of individual adoption.

- The rate of diffusion through a social system follows a

predictable S-curve pattern.

Diffusion is very slow initially, followed then by a period of rapid diffusion, followed in turn by a long and slow adapter period.

The social-Interaction strategy has been reviewed, and this review will then be concluded by briefly looking into the advantages and disadvantages of the Social-Interaction strategy.

5.3.5.4 THE ADVANTAGES OF THE SOCIAL-INTERACTION STRATEGY SCHOOL-BASED INNOVATION

Nicholls (1983: 20) has identified the following advantages of the social-interation strategy:

- Since the strategy is primarily concerned with the dissemination of information, its origins lie outside the schools. However, educators at all levels have access to the messengers of social-interaction strategy, be they other educators (inspectors, teacher centres, etc.) or experts from outside the educational system. Information can be gained formally or informally and applied where considered relevant.

- If a particular innovation is being successfully

- If a particular innovation is being successfully implemented in a local school or school system it can act as a model for the teachers from other schools or school systems to observe in action. Strategy innovators, observing a successful implementation in action, will feel more reassured to proceed with their own innovation. Teachers may also be more motivated to accept a new innovation in their own school or school system.

- This strategy is a 'natural' process (Land, 1989: 69).

5.3.5.5 THE DISADVANTAGES OF THE SOCIAL-INTERACTION STRATEGY

The following disadvantages of the social-interaction strategy have been identified by Land (1989: 69):

- The strategy is based on the premises that an adapter is an individual person, even though innovation efforts in an organisation are not usually a unitary act by a single adapter. Those using the social-interaction strategies often have to select the adapter arbitrary within the organization (usually the head of a local organisation) and this leads to a misleading over-simplification of the innovation process.

- The social-interaction strategy underplays implementation factors. For example, the approach arbitrarily assumes the agency head to be the adaptor and gives great emphasis to the adaptor's external communication links while, at the same time, giving little attention to the distribution of power within the organisation. Examination of the implementation process, in fact, may reveal that the innovation had resulted in bahaviour changes within the organisation that were entirely unexpected and that served as the most important aspect of the innovation effort.

- The strategy does not lend itself to transfer. An innovation suitable for one school or school system may not be suitable for another school or school system.

- The innovation may be incongruent with the philosophy, practice and ability of the teachers who are to use it.

5.3.6 THE PLANNED LINKAGE STRATEGY

5.3.6.1 INTRODUCTION

This strategy combines aspects of the earlier strategies by using linkage procedures and agencies intermediate between

the centres of educational change and the users.

These agencies mediate and link together all the other parties involved in the innovation process (Bishop, 1986: 20).

This strategy combines the first three because it involves passing information between people, these people are linked by means of communication channels that involve interacting with all concerned, hence, terms like networks and link form an important part of this strategy. Before this strategy can be dealt with in detail, the concept of linkage will first be investigated so as to lay a worthwhile foundation for a final plan that is envisaged in this study.

5.3.6.2 THE CONCEPT OF LINKAGE

A linkage or coupling is simply a way of connecting two or more persons or systems together in some way which is appropriate and relevant (Land, 1989: 80). He further argues that the linkage strategy stresses that the user cannot solve a problem by him\herself, but what is needed is a meaningful link outside resources. According to Land, the internal problem-solving process of the user is seen as the essential starting point, but the process of searching for and retrieving new outside knowledge relevant to the problem-solving cycle is spelled out in great detail.

The same feeling is shared by Havelock (1979: 2-10) when he cites that, linkage is a term used to indicate that two systems are connected by means of messages so as to form a greater system. If the barriers between the two systems are permeable enough so that messages can flow out of each to the other and so that response messages can flow into each from the other (feedback), then a link or state of linkage has been created between the two.

What can be concluded from the explanations given by the authors, that were consulted with regard to the linkage concept, is that linkage lays the main stress on the idea that the user must be able to understand and appreciated how the resource system works.

He must work hand in hand with the resource person to provide feedback to each other on the reinforcement of the innovation. This mutual reinforcement will help to build a lasting relationship of trust between the two, because the user will have a feeling that the outside agent is competent and can be able to offer a professional assistance in case of need.

The extended linkage system involves more and more persons and organisations and lead to the concept of networks. Linkages, both formal and informal, have always existed between individuals. According to Land (1989: 81) there are

two types of networks, grass roots or informal network and networks deliberately set up by disseminating agencies. A network is a rather general term, but involves the connection often through voluntary, informal, 'non-organisational' means, of people and organisations with a shared innovation\implementation purpose, (Van den Berg, 1981: 61).

The assertion is made by Land, that networks are available in different ways in which they can be used, such as:

- linking or connecting people which can help each other;

- aiding communication, providing information;

- providing training or teaching experiences about an innovation;

- providing advice and support about implementation.

According to Van den Berg (1981: 61) there are five network characteristics for educational improvements, and these are identified as:

- a strong sense of commitment to the innovation being disseminated on the part developers of the innovation and the adapter/adopter and newcomers to the network;

- a feeling of shared purpose which requires the facilitators or disseminators to define the network goals and objectives;

- a mixture of information-sharing and psychological support, which is important because the 'family feeling' is likely to produce more valuable and sometimes sensitive information, enabling members to get information they are likely to trust;

- an effective facilitator who according to Van den Berg (1981) should have the following characteristics:
  . commitment to the network's purpose;
  . ability to get along with a diversity of people;
  . a good sense of whom to link with whom;
  . ability to persuade participants to interact;
  . a tendency to downplay his/her own expertise;
  . a knowledge of when to be directive and when to be permissive;
  . an emphasis on voluntary participation and equal treatment.

Apart from the strategies discussed in the foregoing paragraphs, the Klug-Salzman Model will also be thoroughly investigated and discussed. Before this model is examined, the concept of mentoring will be defined so as to bring about a clear distinction on how it is going to be used in this study.

5.3.7 DEFINITIONS OF MENTORING

The following are the definitions of a mentor as given by Daresh et al (1992: 110).

- Mentoring is the establishment of personnel relationships for the purpose of professional instruction and guidance (Ashburn, Mann and Purdue, 1987: 10);

- This activity is an important part of adult learning because of its holistic and individualised approach to learning in an experiential fashion (Lester, 1981);

- It is defined by Bova and Phillips (1984) as "learning resulting from or associated with experience";

- A mentor is someone who takes an active interest in the career development of another person... a non-parental role model, who actively provides guidance, support and opportunity for the protage. Mentors are guides who support a persons dreams and help put (dreams) into effect in the world (Sheehy, 1976);

- A mentor is one defined not in terms of formal role, but in terms of the character of the relationship and function it serves, a mixture of parent and peer (Livingson, 1978);

> Livingson further states that a mentor can act as a host and guide welcoming the initiation into a new occupational and social world and acquainting the protege with its values, customs, resources and cast of characters.

According to Daresh (1992: 111) the element that serves as the function of any conceptualisation of mentoring is the fact that this activity must be a part of the true development relation that is tied directly to an appreciation of life and career stages.

The conclusion that can therefore be arrived at on the basis of the definitions in the foregoing lines is that, mentoring is a process whereby mentors are expected to provide support, guidance and personal satisfaction to the inductee. What follows are the induction models in which this term is vastly going to be used.

5.3.8. THE KLUG-SALZMAN MODEL

5.3.8.1 INTRODUCTION

Klug and Salzman undertook a study where they observed the mentors and beginner teachers. There were two groups that were observed, the informal buddy system approach group and the informal induction team approach group. These approaches are discussed as follows:

5.3.8.2: INFORMAL BUDDY SYSTEM APPROACH

According to Klug and Salzman (1991: 242) the mentor and the beginner teachers assigned to the buddy system approach are directed by the principal investigator to meet with each other in order that the experienced members of the dyad can provide assistance to the beginner teachers by way of suggestion, solutions to problems and instructional planning. In this approach, there were not a set number of hours that the participants were required to meet, nor were any guidelines set concerning the areas where assistance might be provided.

5.3.8.3 THE INFORMAL INDUCTION TEAM APPROACH

According to Klug and Salzman (1991: 242-3) beginner teachers assigned to the team approach were required to be observed for a 2 hours period, on a monthly basis during the first semester, and semi-monthly during the second semester by all the team members (i.e mentors, principals and all representatives from the higher education institutions). During the observations, team members employed as supervision model which is, according to Klug and Salzman (1991) based on that recommended by Cohen (1972).

With this model, beginner teachers and team members were also required to attend four team meetings (two each semester) during which the induction programme and the results of the observations were discussed and the beginner teachers were made aware of their strengths and weaknesses well as areas of concern. Mentor teachers were asked to spend approximately 72 hours working with the beginner teachers throughout the year; these hours included observation periods and team meetings. The principal investigator acted as a participant-observer throughout the study serving on induction team and collecting data in the form of field notes.

At the end of the academic year, beginner teachers and mentors were interviewed by at least 4 trained investigators. Audiotapes and notes made by the principal investigator were later analysed. After the analysis of both programmes, beginner teachers involved in both induction programmes were videotaped for the duration of two lessons, once during the first three weeks and once during the last three weeks of the academic year.

These videotapes were then analysed by the principal investigator and at least nine other trained observers using two instruments from the Teacher Performance Assessment instrument, Classroom Procedures and Interpersonal Skills.

In addition to the videotaped lessons, the beginner teachers completed the Purdue Teacher Opinin Opinionaire twice, once during the first three weeks of the academic year, the second following completion of the induction programme. In all cases, the Purdue Teachers Opinionaire was administered by the principal investigator and scored by a trained graduate student.

After these two induction programmes were undertaken and the results analysed by those concerned, there followed the analysis and comparison of the results of the two programmes. The findings would decide which programme could be used successfully and adapted as 'The Klug-Salzman model for induction'.

5.3.8.4 ANALYSIS OF THE TWO INDUCTION PROGRAMMES BY KLUG AND SALZMAN

In analysing the results of these two programmes, Klug and Salzman found that the results concentrated on the three major concerns which are:

- the necessary induction programmes;
- when to provide assistance;
- model preference.

5.3.8.5 THE NECESSARY PROGRAMME ELEMENTS

The data from the studies, supported formulation of the hypothesis that an effective induction programme should feature certain identifiable elements. These elements as cited are structure, emphasis on assistance rather than evaluation of the beginner teachers, and the careful selection of the mentor.

It was further highlighted that beginner teachers who participated in the buddy system approach felt that it lacked structure, and according to them, this approach was confusing for both beginner teachers and the mentor teachers. The participants further cited that clear goals should be mutually established with the mentor teachers in the buddy system approach. They further asserted that definite meeting times with the mentor teachers need to be scheduled, providing opportunities to make suggestions and give general support to the beginner teachers.

Klug and salzman (1991: 246) came up with a quotation which according to them, is representative of the responses of the participants in the buddy system induction programme. The quotation reads as follows:

> I would like to set up a definite time that my consulting teacher would come in to observe me. I think twice a month. And set up goals, have her

> give me suggestions on the way I am teaching a lesson and see if we can't do something, I need to grow and that's the only way to do it...

Novice teachers who were involved in the Induction Team Approach responded that all elements of the programme should be retained, including formal observations by the team members, formal committee meetings, and a commitment of a set minimum number of hours to spend with the beginner teachers by mentor teachers.

These team participants emphasised the fact that assistance rather than evaluation of the beginner teachers should be provided. The administrators, on the other hand, were viewed by the team members as important members of the team. Many beginner teachers were unsure whether the participants were serving as evaluators or helpers. According to Klug and Salzman, the participants in the team approach generally reported added stress due to the structure of the programme. They felt that the benefits outweighed the stress. These beginner teachers therefore, stated that:

> It is hard to look at yourself when you are the one teaching, to step back and take a look at how you are teaching - just your different methods and what things you can improve and what things you are doing really well (Klug and Salzman, 1991: 247).

According to Klug and salzman (1991: 247), participants in both induction models felt that the mentor teachers should be carefully chosen. Novice teachers stated that the mentor should be someone they trusted and with whom they could be willing to share concerns; someone who would be willing to take time to listen and provide ideas, support, and possible solutions to problems; and someone who would respect the novice teacher's philosophy. A similar grade-level teaching assignment or experience was also cited by the novice teachers as a criterion for the selection of a mentor teacher.

5.3.8.6 WHEN TO PROVIDE FOR ASSISTANCE

According to participants an ideal time to help the beginner teachers with induction prorgammes i.e during their first year of teaching. This early support will provide assistance in the development of teaching skills during the most crucial period of the beginner teacher's career.

Consequently, some of the problems experienced by the beginner teachers (2.2) can be prevented from the start. Most beginner teachers interviewed in this study showed an appreciation that assistance, regardless of the model, should be provided during the initial years of teaching.

The respondents revealed the descripency in hours the mentor spent with the beginner teachers in the buddy system and the team approach. In the buddy system approach mentor teachers spent an average of 22 hours with the beginner teachers in their second year of teaching. In the team approach, mentor teachers spent close to the recommended 72 hours with the first year teachers, and averaged approximately 38 hours with second year teachers.

5.3.8.7 MODEL PREFERENCE

Administrators and mentors involved in the team approach viewed the model as superior to the system. Reasons put forward by participants for the superiority of the team approach included:

- elements built into the model and the overall structure of the model;

- access by the beginner teacher to the three resources (5.3.5.4.3) other than one; and

- increased collegiality of the team members and participants.

Administrators participating in both models generally confessed that they new the beginner teachers in the team

approach better than the beginner teachers in the buddy system approach, and that they had established better working relations through the team approach. Mentor teachers in the team approach stated that they had been able to provide their beginner teachers with more quality assistance than their counterparts on the buddy system due to the nature of the programme.

This study was undertaken to find out which of the two models is suitable for helping the beginner teachers to overcome their problems during the first years of teaching. According to their responses, it could be concluded that the team approach was found to be the best. This approach was favoured by both the beginner teachers, mentor teachers and the principals themselves.

This study will also include the team approach in the designing of the model of induction for Bophuthatswana as this model is regarded relevant to Bophuthatswana's need. Having looked at the different models and approaches for inducting the beginner teachers, the next part of this chapter will look into the designing of a model of induction for Bophuthatswana. In designing a model, there are steps which are to be followed and these steps, according to Berman (1978) are:

- the formulation of a policy;
- implementation;

- evaluation;
- institutionalisation.

The next section then focuses on the formulation of a policy and its translation into a programme.

5.4 FORMULATION OF A POLICY AND ITS TRANSLATION INTO A PROGRAMME

According to Berman (1978: 158) many programmes implemented in America during the sixties failed because their implementors did not realise the existence between policy input and outcomes, of a vast network of institutions which, in various ways, could determine the success of the programme. There is therefore, no link between policy and outcomes.

This study is relevant to the induction of the beginner teachers by the principals in Bophuthatswana high schools. However, before the model for the induction of the beginner teachers in Bophuthatswana is arrived at, a decision to provide for such a programme has to be reached by the highest authority, namely, the department of education in Bophuthatswana. It is only then, that policy decisions will follow. Before the policy is formulated, and translated into a programme, it needs to be defined so as to bring about a clear definition of how this term will be used in this study.

5.4.1 CLARIFICATION OF TERMINOLOGY

According to Land (1989: 92) a policy is seen as a dynamic and complete process... a set of inter-related decision... consisting of the selection of goals and the means of achieving them within a specific situation. Ham (1985: 11) maintains that a policy is a course of action rather than specific decisions or actions.

In the same vein, Larson (1980: 1) shares the same view and considers a policy to be a way of dealing with public problems through some sort of concrete action. He further cites that policy may exist within larger programmes, the same as the programme may exist within larger policies. Similarly, Land (1989: 93) considers the dynamic nature of policy and the decisions which arise out of a policy when he states that a policy consists of a web of decisions and actions that allocate values. He further argues that a policy whether for a society, an association, or any other group, involves an action set of decisions.

However, according to him, a decision is not a policy. To him a decision is only a selection among alternatives that expresses the induction of the person or a group making a choice. Arriving at a decision is a formal phase of establishing a policy, it is not the whole policy in relation to a particular problem.

When actions to implement a policy begin, this represents a start of the second phase - the effective phase of a policy. In this phase the decision is expressed or interpreted in a series of actions and narrower decisions. For Berman, this is the administration phase, namely that authoritative policy decision are translated into an appropriate programme. This in turn may result in the establishment of new policy. It is clear from what has been stated that this is decision-making from a very important part of the policy process.

Having looked at the definition of policy in the context in which it is going to be used in this chapter, the following paragraphs will then deal with a policy decision which must be taken with regard to the provision of the induction programme for the beginner teachers in Bophuthatswana.

5.4.2 POLICY DECISION WITH REGARD TO THE PROVISION OF THE INDUCTION PROGRAMME FOR THE BEGINNER TEACHERS IN BOPHUTHATSWANA

Policy decisions according to Land (1989: 97) lie within the environment within which the system operates. Social, economic, and political factors stimulate demands and provide support for the policy-making process. According to Berman (1978: 21) the implementation of a policy decision is not simple matter. According to him, a policy passes through

and is implemented sequentially by various organisations so that output of one implementing organisation becomes the input of the other organisation.

The programme which is finally implemented, in this case, policy's outcome, depends on these passages. He at the same time mentions the long process from policy to operations. The conclusion can be in an orderly sequence so as to ensure that what is envisaged by the policy-maker is eventually implemented as an acceptable programme.

Casting light on the whole issue Bruce (1981: 9) maintains that there are four basic steps to be followed in the process of taking a decision on a policy and programme in the area of concern in education. He tables these steps as:

- determining the framework for those policies through an examination of what is currently being done and what needs to be done;
- making policy-decision;
- refining and expanding the basic policy decisions;
- translating policies into action.

With regard to a programme such as an induction for the beginner teachers, policy decisions will have to go through these various stages or phases. These phases are summarised by Bruce (1981) as follows:

PHASE I: DETERMINING THE FRAMEWORK OF POLICIES

- **Goals**
  - . determine what is currently done with regard to the beginner teachers in the form of induction;
  - . determine what needs to be done to improve what is currently being done in the form of induction;
  - . to set goals for an appropriate induction programme for a certain period of time.

- **Issues to be considered**
  - . existing policies and services regarding the induction programme for the beginner teachers.
  - . the availability of finance for the introduction of an induction programme.

- Decisions to be taken
  - . priority rating of the beginner teachers.
  - . what is envisaged for the induction of the beginner teachers by the policy makers for the future.

PHASE II: MAKING BASIC DECISIONS

- Goals
  - . to set parameters for the departmental policy with regard to the induction of the beginner teachers.

. basic goals as formulated in phase 1.
. current policies and programmes.
. departmental needs and resources, as determined in phase 1.
. political and economic factors, both those which would constrain and those that would support the proposed programmes.

- Decisions to be taken
  . will the policy be mandatory or voluntary ?
  . will the beginner teachers' induction programme policies be incorporated with basic education policies?
  . a suitable definition of an induction programme envisaged.
  . a distribution for available funds for the introduction of the induction programme for the beginner teachers.

PHASE III: DEFINING AND EXPANDING POLICIES

- Goals
  . to continue the policy development process by completing the details of policies that will be articulated through legislation, rules and\or guidance.

- Issues to be considered
  - . the priority rating of the induction programme for beginner teachers.
  - . basic goals for the department of education in inducting the beginner teachers.
  - . current policies and programmes at departmental and local levels.
  - . needs and resources as identified in phase 1.
  - . political and economic factors which may constrain or support the programme.
  - . basic policy decisions made during phase II.

- Decisions to be made

  Seven policy concerns are identified and listed, i.e.
  - . minimum programme standards.
  - . qualification certification of educational personnel.
  - . procedural safeguards,
  - . funds for operation of programmes,
  - . responsibilities of education agencies,
  - . other policies and special programmes related to the induction of the beginner teachers.

PHASE IV: TRANSLATING POLICIES INTO PRACTICE

- Goals
  - . to ensure that the policies developed or revised during phases I and II are successfully implemented.

- Issues to be considered
  . these are the same for phases 1 to II with special emphasis being placed on the political, economic factors which may constrain the programme.

- Decisions to be made
  . now can policy-makers and top level administrators provide long-term support for the induction programme for the beginner teachers, given the many concerns and responsibilities they have ?

To determine a policy, it is believed that there should be a comprehensive structure to be determined by the policy-makers. These policy-makers will have to be provided with background information to ensure that the policy stands a better chance of successful incorporation, and acceptance, and then implementation.

Formulation of a policy, therefore, helps in arriving at decisions and interpreting these decisions in a series of actions which can be implemented into an appropriate programme.

The next section pays attention to the implementation process which will provide guidance on which factors to take into account when the programme is implemented.

In his comment, Land (1989: 71) feels that research into the process has led to a new discipline, namely that of "implementation analysis". According to him, in implementation analysis the emphasis is placed on the process of implementation, especially in the way it involves the intervening institutions. This intensive study into the implementation process has resulted in a more sound knowledge of what implementation is, what it involves and how to plan for it.

Out of the development of reforms and their attempted unsuccessful implementation has come the realization that "... the implementation of such an innovation is very complex". It involves planning and co-ordinating a multi-level social process involving thousands of people (Land: 1989: 71).

The same view is shared by Nicholl (1983: 1) who adds that the promotion of educational change is a complex exercise, one which is so influenced by its own particular setting and by the participants, that no guarantee of success can be offered.

Berman further adds that the process is seen as a complex chain, stretching from policy input to outcomes. He warns of the danger of concentrating only on a limited part of the chain and neglecting the most important part.

5.5 IMPLEMENTATION STRATEGY

5.5.1 INTRODUCTION

According to Berman (1978: 157) the concept of implementation is new and hardly anyone spoke of implementation in the sixties. Subscribing to the same view are Fullan and Park (1981: 1) who maintain that many innovations failed in the sixties, because of the frequency at which attempts to introduce innovations were made.

It was because of these failures that the scientists recognised the importance of implementation and they began an in-depth study of it (Berman, 1978; Fuller et al, 1981: 4).

According to Land (1989: 71) it is only in the last twelve years (since about 1970) that we have come to understand how educational change works in practice. In the 1960's educators were busy developing and introducing reforms. In the 1970's it became clear that putting them into practice was proving unsuccessful, Out of this rather costly endeavour (psychologically and financially) has come a strong base of evidence about how and why educational reforms fail or succeed.

Moreover, he cites that for envisaged change to be successful, the structures and climate of the school (including the professional task of teaching), the characteristics of the change and the phases through which the change process moves should take into serious consideration the social and community context. Figure 5.6 presents this in detail.

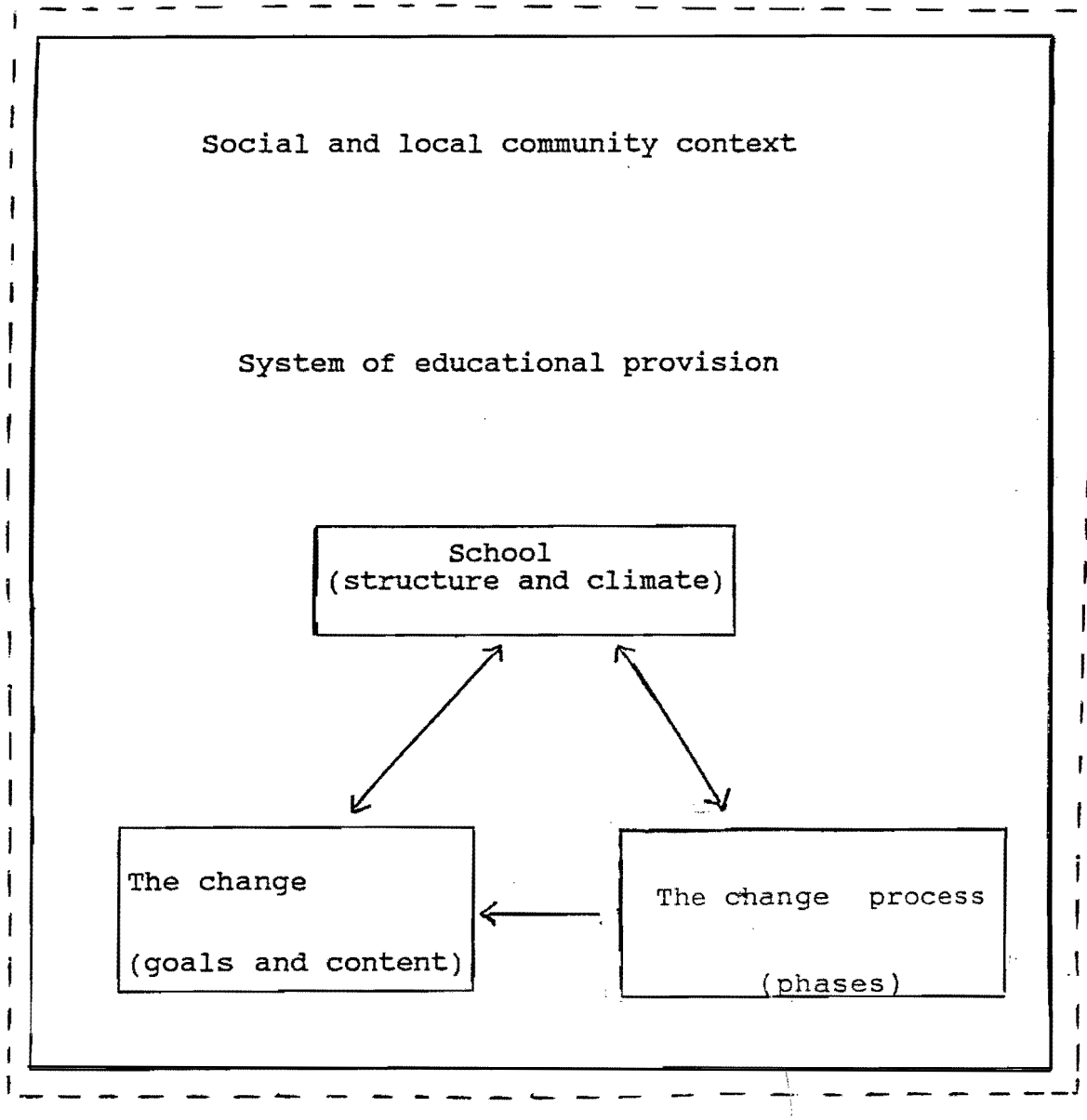
5.5.2 THE IMPLEMENTATION PROCESS

Implementation is a process of putting into practice an idea, programme or set of activities which is new to the people, and attempts to bring about change (Fullan and Park, 1981: 216). Regarding this Rutherford, Hall and Huling point out that bringing about this change does not occur "at a point in time as a result of some sort of profound decision, legislative act or cataclysmic event".

According to them it is rather an ongoing process, and not an isolated event; it is a process of a new educational practice, takes time and moves through a series of phases or stages.

According to Berman (1978: 167) there are phases through which a policy or programme passes and is implemented. He further cites that the passages are in sequence and form part of what he termed the Macro-Implementation.

FIGURE 5.6: DETERMINANTS OF EDUCATIONAL CHANGE



Source: Lagerweij, 1981.

Berman further suggests the setting for macro-implementation as that of an entire policy sector, spanning central government to local authorities. He also notes that the policy sector usually consists of a collection of many diverse government, bureaucracies, public and private interest groups, local delivery systems, clients, and individuals, whose complex interactions are frequently very difficult to describe.

The same feeling is shared by Land (1989: 74) when he notes that the interaction in such sections as education are sometimes fluid, frequently chaotic, and always conflicting. He however goes on to indicate that such sectors typically have tacit operating rules of the game, established roles, routinised procedures and reasonably stable conditions. Such a structure, composed of enduring patterns of behaviour such as described above is known as Macro-implementation.

Berman has identified four clusters of factors as being associated with the uncertainty and difficulty of macro-implementation, and these are:

- goals discrepancy;
- influence and authority differentials;
- resource difficulties;
- communication difficulties among orgnisations.

According to Berman, the implementation process involves the technology to be implemented passing through various stages which influence the outcomes of the chain. The success of implementation depends on these passages. Each passage transforms the input until finally the way local authorities implement their projects determine the success of the implementation of the innovation.

Figure 5.1 is an illustration of the chain consisting of four passages as distinguished by Berman (1978: 167). These four passages are as follows:

- Administration/Policy Formulation

  The administration process involves a policy decision to introduce an innovation by relevant authorities. This is followed by a programme drawn up by the authority.

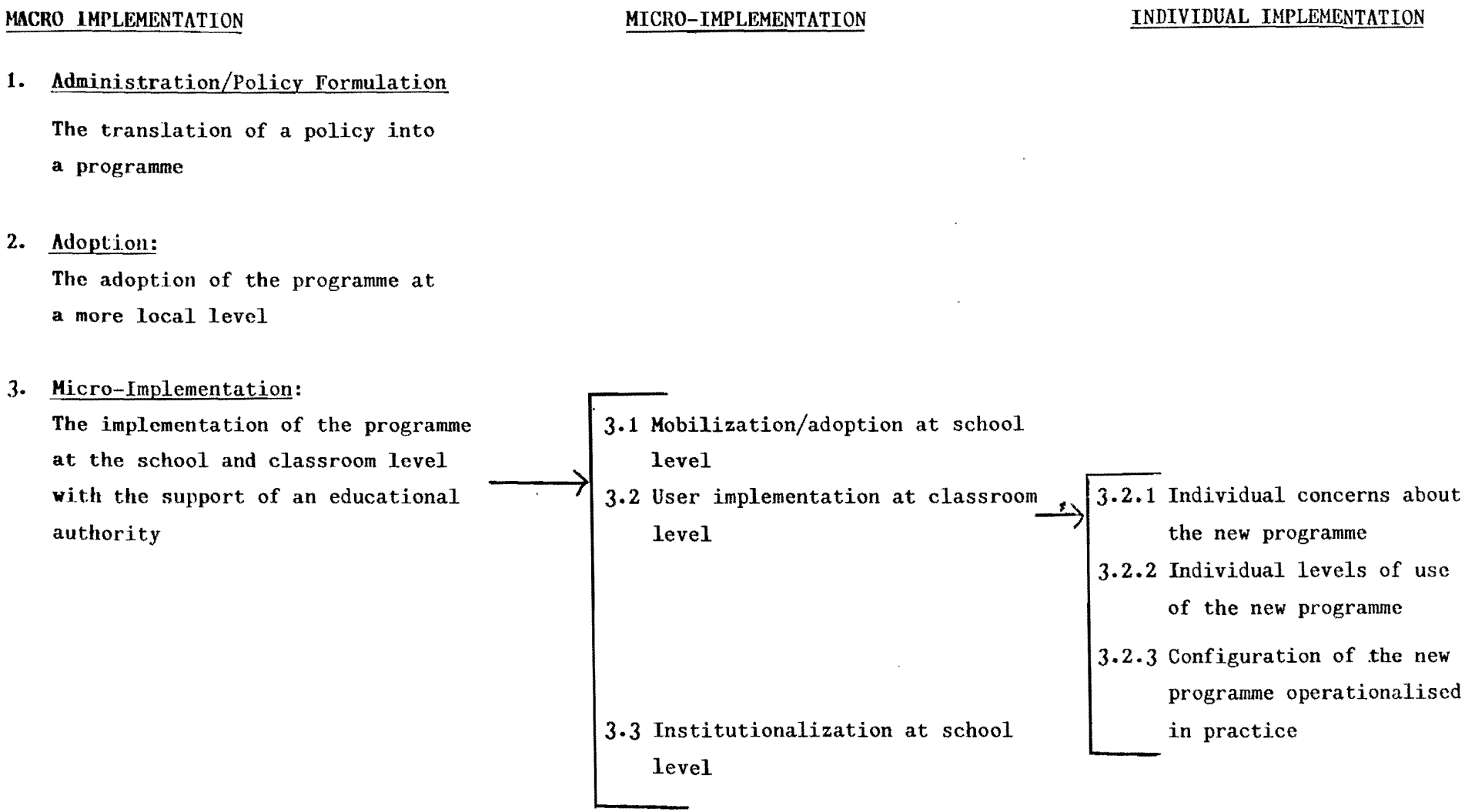
- Adoption

  Once a programme has been drawn up it must be accepted at the level at which it is to used. The adoption process involves getting the programme accountable at local level.

- Micro-Implementation

  Once a programme has been accepted it must be implemented in the environment for which it is to be used. The adoption process involves getting the programme

FIGURE 5.7: THE IMPLEMENTATION PROCESS



Source: (Taylor,1985:4)

acceptable at local levels.

- Technical Validity
  Stage four involves the evaluation of the programme, the degree to which it has been successfully implemented and the identification of any new learning outcomes.

The argument is brought forward by Berman (1978: 166) when he notes the link between these passages - from policy decision to government programme, from programme to local project adoption, to implemented local practice, and from practice to local outcomes - represents the basic types of coupling which are very important for macro-implementation.

The fact that the process is not necessarily smooth nor certain is further emphasized by Berman in the following lines:
A more appropriate image of macro-implementation is a series of necessary passages whose stockastic linkages define and redefine policy. On the other hand, what happens in the uncertain and ongoing process of administration affects adoption, what happens in adoption affects micro-implementation, what happens in macro-implementation affects technical validity.

Having discussed the implementation process and a series of passages to be passed through for implementation to be

Having discussed the implementation process and a series of passages to be passed through for implementation to be successful, the next section will be concerned with the evaluation process and the objectives which are necessary to give direction to the important steps to be taken into account when evaluating the envisaged programme.

5.6 EVALUATION

5.6.1 INTRODUCTION

Evaluation is necessary during and after the implementation of the programme. According to Traxler (1987: 109) the evaluation of programmes should focus on well-formulated objectives and the evaluation format should be designed before the programme is implemented. Traxler further cites that the evaluator should be involved from the beginning and be given specific guidance.

Since both formative and summative evaluation is necessary for programme growth, evaluation should be carried out during the programme operation so that necessary ongoing modification can be made, as well as at the end of a gives period of time to determine overall results (Land, 1989: 234) It may argued that because of the factors which influence the training performance of the beginner teachers in their initial years of teaching, an evaluation of the induction of the beginner teachers will be of the utmost importance. It

will therefore be of particular importance to set up an ongoing evaluation so that the programme implementers are aware, at each stage of the implementation process, of the potential problem areas. This awareness may then enable immediate action to be taken to rectify the potential problems.

The paragraphs that follow present in summary form the need to evaluate and also point out the aspects which should be taken into account when considering the evaluation of a programme. However, before these aspects are identified and discussed, the need to define 'evaluation' should be given priority.

5.6.2 DEFINITION OF EVALUATION

According to Hord et al (1986: 80) evaluation is a process of delineating, obtaining and providing descriptive and judgemental information about the worth and merit of some object goals, design, implementation and impacts in order to guide decision-naking, and promote understanding of the involved phenomena. In assessing the above definition, one key aspect to be taken into consideration is 'implementation', as this is a central concern in this chapter.

According to Land evaluation an further be defined as the

This will involve identifying the parameters of change over which the decicion-making groups have control. It will therefore, be of little or no use to evaluate a programme, unless the objectives of such an evaluation are clearly spelled out. The following section therefore discusses the objectives of programme evaluation.

5.6.3 THE OBJECTIVES OF PROGRAMME EVALUATION

According to Land (1989: 240), within the general decision-making process of programme evaluation, there are a number of more specific objectives which are necessary to give a direction to the crucial design of an evaluation. Renzulli (in Land) however, stresses that the purpose of an evaluation is not to come up with a simple score or rating that attempts to express the success or failure of a given programme, but rather the providing of specific information that will lead to the maintenance modification or termination of a particular programme components.

According to Renzulli, the evaluation should be diagnostic in that it points to the circumstances and conditions that result in identifiable changes in performance, attitudes or any other indicators of programme effectiveness. To meet these needs Renzulli (1977) suggests the following objectives:

- To discover whether and how effective the objectives of the programme are being fulfilled:

  This objective is considered by many researchers to be the major responsibility of the evaluator. The stated objectives of a programme generally reflects the educational values and attitudes underlying a programme. The evaluator has the important task of determining the

degree to which each objective is being achieved. He also has the equally important task of identifying both positive and negative outcomes that were not thought of when the programme was planned and are thus not part of the programme objectives.

- To discover unplanned and unexpected consequences that result from particular programme practices:

When a programme is designed, objectives are identified and certain outcomes anticipated. However, there is no guarantee that unexpected and unplanned for consequences may not also occur. To cater for such eventualities it is recommended that the evaluator be free to investigate "any and all conditions" that may influence the effective operation of the programme. Renzull further cites that any activity or condition which may have a direct or indirect impact on a programme is 'fair game' for the evaluator.

To provide continuous in-process feedback at intermediate stages throughout the course of a programme:

Ongoing feedback through the course of a programme is essential to facilitate necessary ongoing improvements to the programme. Continuous monitoring is thus necessary.

- To suggest a realistic, as well as ideal, alternative course of action for programme modification:

This final objective is concerned with the usefulness of evaluative findings. Realistic suggestions are those that take into account such predetermined factors as the availability of funds and human resources, the prevailing political climate, attitudes of key decision-makers towards parts of the programme and how the programme can be made to work harmoniously within the overall framework of a particular school. The evaluator, on encountering factors which may have a negative influence on the programme, will need to be able to suggest acceptable options.

The objectives of evaluation, as cited by Renzull in the foregoing paragraphs, are applicable to any educational programme which is an innovation. As such, the induction model that is to be designed in this study, will also be evaluated in the light of these evaluation objectives.

5.6.4 THE EVALUATION OF THE PROGRAMME

There is no doubt regarding the necessity for the evaluation of the programme, the question that remains however is, who should evaluate such a programme: the principal evaluator, the principal of a school or the mentor? According to

Nicholls (1983: 83), the usual practice is that for the evaluation to be undertaken by the mentors themselves, as they are the ones directly involved with the innovation. On the other hand, Traxler (1987: 112) cites that employing evaluators with appropriate training and understanding will increase the likelyhood of the use of valid and reliable measures of quality.

The evaluation result will give relevant to this programme in helping the beginner teachers solve the problems they encounter in their initial years of teaching. Evaluation by a trained evaluator will also help in demonstrating the accountability and cost effectiveness of the programme.
If the evaluation results offer an appropriate solution in that it helps the new teachers settle and perform their duties comfortably and freely with understanding, institutionalisation will follow. The next section looks into institutionalisation as the last step of the programme implementation process. Before this institutionalisation stage is briefly discussed, a brief definition culminating from the authors consulted will be given.

5.7 INSTITUTIONALISATION

5.7.1 INTRODUCTION

According to Hord and Hall (1986: 87) institutionalisation is a process through which an organisation assimilates an innovation into its structure. The same view is shared by Kenny and Roberts (1986: 2) when they note that institutionalisation is the extent to which all internal users accept and use the innovation on an ongoing basis. Hord and Hall (1986: 87) further note that institutionalisation is the process of survival of the new practices and structures over time, and further point out that the innovation must be locked into the organisational setting of an institution and into the minds of the users. According to them, it becomes a normal day to day routine and is no longer regarded as something new or different requiring other materials, skills and attitudes.

Implementation and institutionalisation guarantee the success of each other, indeed the two can work against each other (Berman, 1978: 178).

5.7.2 INSTITUTIONALISATION OF AN INNOVATION

Institutionalisation may be described by using three descriptive measures:

- one that identifies how the user is feeling about, or reacting to the innovation;
- one that describes how the individual is using the innovation (these two aspects are people oriented);
- a measure that describes the new programme process or product in operation in the individual's classroom (this sis the innovation perspective) (Hord and Hall, 1986: 90).

These descriptive measures will be discussed in detail in the following paragraphs.

5.7.2.1 STAGES OF CONCERN

According to Hord and Hall (1986: 90) the first aspect to be described is the 'stages of concern' . When most individuals experience a process of change, they experience it rather differently; these stages of concern range from concerns about the self' then concerns about 'task' and finally the concerns about 'impact' The stages of concern focus on perception. Figure 5.8 displays this situation rather clearly.

FIGURE 5.8 STAGES OF CONCERN ABOUT INNOVATIONS

STAGES OF CONCERN	EXPRESSIONS OF CONCERN
6. REFOCUSING	I have some ideas about something that would work even better.
5. COLLABORATION	I am concerned about relating what I am doing with what other teachers are doing.
4. CONSEQUENCE	How is my use affecting pupils?
3. MANAGEMENT	I seem to be spending all my time in getting material ready.
2. PERSONAL	How will using it affect me?
1. INFORMATIONAL	I would like to know more about it
0. AWARENESS	I am not concerned about it (the innovation)

Source Hord et al (1986: 90)

The beginning teachers taking part in the induction programme are a selection of only those teachers who have not yet finished three years in teaching.

Thorough induction is a new idea to them. If not well informed about it their concerns about it might be negative, thus concerns (2.1 and 0). Similarly, teachers, heads of departments and the principals should also be addressed so that they can lend a helping hand alleviating the concerns of the beginner teachers regarding induction programme.

5.7.2.2 LEVELS OF USE OF THE INNOVATION

Levels of use describe how the performance changes as the individual becomes more familiar with the innovation and more skilful at using it. Levels of use, focus on whether or not and how the teacher is using the innovation (Land, 1989: 287). According to Land, there are eight levels of use (see figure 5.9)

FIGURE 5.9 LEVELS OF USE OF THE INNOVATION: TYPICAL BEHAVIOURS

LEVELS OF USE	BEHAVIOURAL INDICES OF LEVEL
VI RENEWAL	The user is seeking more effective alternatives to the established use of the innovation
V INTEGRATION	The user is making deliberate efforts to coordinate with others in using the innovation
IVB REFINEMENT	The user is making changes to increase outcome
IVA ROUTINE	The user is making few or no changes and has an established pattern of use
111 MECHANICAL USE	The user is using the innovation in a poorly coordinated manner and is making user-oriented changes
II PREPARATION	The user is preparing to use innovation
1 ORIENTATION	The user is seeking out

5.7.2.3 THE CONFIGURATION OF THE INNOVATION

According to Land (1989: 239) this perspective is important in understanding and describing the change process. It describes the various operational forms of an innovation that result as individuals adapt it for use in their particular situations. He further assets that major operational components of the innovation are identified and the manner in which each varies is described. Figure 5.10 gives a summary of a continuous programme in which it is recorded in what ways each potential user is using the various components of the innovation.

		information about the innovation
0	NON-USE	No action is being taken with respect to the innovation

Source (Land, 1989: 288).

With regard to the levels of use, the argument can be put forward that the user achieves a certain minimum level of use of an innovation, for example with the induction of the beginner teachers, the teachers will derive a real benefit from the use of the innovation. The problems aired need help and this can only attained by institutionalising the induction programme. For the programme to be institutionalised, it would appear that the user should at least reach a level IVB (refinement) in order to derive sufficient benefit from the programme.

The levels below IVB indicate that the user is making little or no use of the benefit of the innovation, and if there is no incentive for the users they are likely to continue in their habitual ways of thinking and doing things, that is, solving their problems by trial and error, by using informal socialisation (2.3) to solve their problems.

FIGURE 5.10: INNOVATION CONFIGURATION COMPONENTS AND VARIATIONS OF A CONTINUOUS-PROGRESS PROGRAMME

Instruction * materials			
1.	2.	3.	4.
Programme materials only	programme plus materials	text only	teacher-made materials only
grouping			
1.	2.	3.	4.
completely individualised	small groups	large homogeneous	large heterogeneous
Test component *			
1	2.	3.	4.
each student tests him/herself as he/she complete each objective	testing done weekly with test result fed back to students	testing done once every six weeks- nothing done with test results	no regular testing standardised achievement tests required by district

To left of slashed line is ideal variation

To left of solid line is acceptable variation

To right of solid line is unacceptable variation

* Critical components

Source: (Land, 1989: 290)

With these three aspects, institutionlisation can be established and these aspects apply to any innovation.
Hord (1986: 100) points out a concept of intervention. This concept to him, involves using the previous findings to guide the design and delivery of intervention of individuals, to help them reach the goal of institutionalisation. Such intervention would be undertaken by qualified, well-trained expects in the field.

In conclusion, institutionalisation of an envisaged induction programme for the beginner teachers might be summarized as follows:

- decisions at macro-level should aim at establishing the implementation process to be taken as part of the policy of Bophuthatswana;
- the personnel at the executive level in the department of education must make induction of the beginner teachers an integral part of the overall activities of the department of education;
- the implementation process will be completed when all the phases described in the foregoing lines have been completed and a decision taken that the beginner teachers' induction becomes a permanent part of the department of education.

Finally, effective implementation can be facilitated only once the characteristics, problems and positive influential factors regarding institutionalisation have been identified and served. As Land (1989) puts it, attempts may be made to differentiate between short term projects, pilot projects or programmes which (if successful) should be institutionalised.

The section that follows, forms the gist of the whole of this chapter, and will look into designing the induction model suitable for the beginner teachers in Bophuthatswana. The implementation of the proposed model follows.

5.8 A RECOMMENDED MODEL OF INDUCTION FOR BEGINNER TEACHERS IN BOPHUTHATSWANA

The Berman strategy (figure 5.7) coupled with the team approach strategy (5.3.8.3) seem to be more comprehensive for the model. The Berman approach begins with the implementation process of policy decisions at an earlier stage, than any other strategy that has been identified. This is an important implementation for any innovation process. If the policy and what it implies are not clearly spelled out for those who will use it, it might be ambiguous right from the start and this might as well not be accepted by the use. The decisions arising out of this policy are subsequently unlikely to be accepted or implemented successfully.

In Bophuthatswana, education is administered by a government department, in terms of government policy. Implementing a programme of induction for the beginner teachers would therefore have to be a policy decision. The implementation of an innovation like this would need to originate at the top government level and be passed through various sections of the department. Each would be involved with various aspects of the implementation process.

Among all the other strategies identified, the Berman perspective is the one that spells out clearly and simply how the implementation process of an innovation could be taken. It identifies the factors that need to be taken into consideration at each stage during the implementation (figure 5.7).

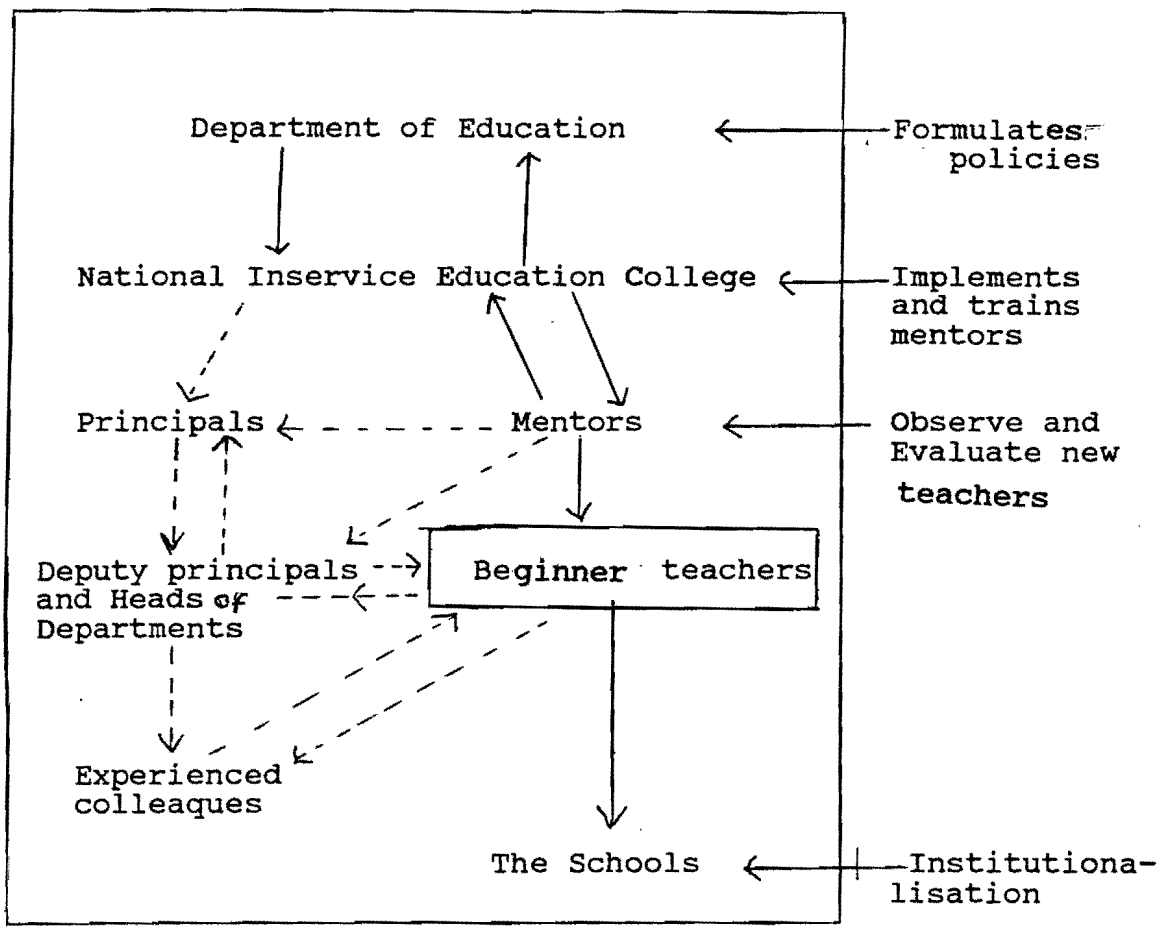
The Berman approach with its four phases described earlier, that is, Administration, Adoption, Micro-implementation and Technical Validity (figure 5.7) coupled with the informal induction team approach, constitute an envisaged ideal model for induction of the beginner teachers. Mentors should be used to help the beginner teachers by giving the support, guidance and a feeling of competence. In chapter 4, the beginner teachers aired most of their problems as being perpetuated by the neglect from their experienced colleagues. This neglect is not due to selfishness but to the fact that

experienced teachers are also loaded with work.
The mentor system can be very mush applicable, but the teaching loads of the those teachers chosen to be mentors should be reduced, so that like in the team approach they give most of their time to helping the beginner teachers. The principals, as reeled in their responses in chapter 4 of this study, have indicated that the beginner teachers don't always consult them when they experience problems with their work, but most respondents in this chapter, both the principals and the beginner teachers feel more comfortable working with their colleagues than asking help from the administration.

On the basis of what has been discussed in the foregoing paragraphs, the Berman and the Team approaches are the ones which can work successfully in inducting the new teachers.

The next section gives the ideal model for the induction of the beginner teachers in Bophuthatswana.

FIGURE 5.11 RECOMMENDED MODEL FOR THE IDEAL INDUCTION MODEL FOR BOPHUTHATSWANA



Source: The author

According to this model, the beginning teacher is the focal point. All the other parties work together for the benefit of helping and solving the new teacher's problems.

This recommendation model is to be mounted on a minipilot scheme in a small number of schools. If successful, it will be implemented at Macro-level. At Macro-level all mentors will be co-ordinated by the principal evaluator who could regionalise the meetings with mentors quarterly or twice per semester.

The dotted line in figure 5.11 indicates that these people are not wholly concerned, but should be informed as they work with the beginner teachers in schools. If they are well informed, they can be of assistance in helping the beginner teachers with all their problems (indicated in chapter 2 of this study).

The principals will help the beginner teachers by reducing their teaching loads and allocating them the subjects they majored in at their respective Colleges of education. The mentors, with the support of the principal, will help them with all the basic management tasks such as, planning, organising, controlling and leading. The additional management tasks such as communication, motivation, delegation, co-ordination and decision-making should be touched upon by the principals in inducting the beginner teachers.

The mentor does not work in isolation, but will co-ordinate with other members of the staff, that is the deputy principals and the heads of departments. The deputy principals and the heads of departments will in turn keep the principals informed of the development of the new teachers. The principals should be held responsible to select the most competent teachers among their staff as mentors.

The straight line (fig.5.11) indicates those people who are actively concerned with the innovation. The department of education should formulate policies to introduce the innovation.

The National In-service College is at the moment concerned with initiating the teachers in the service by mounting on-the-job courses for teachers. As this programme is part of in-service, The National In-service College with the directive from the department of education, trains the mentors who will observe, advise and guide the beginner teachers and finally evaluate their performance. The mentors should report to the principal evaluator at The National In-service College (N.I.E.C).

The principal evaluator, from N.I.E.C in turn reports the progress of the teachers to the Senior Committee at the department of education. This Senior Committee should be composed of representatives from Inspectorate, Colleges of

education, The University (Unibo) and The National In-service Education College. This committee will decide, on the basis of the performance, whether the beginner teacher is to become permanent or remain on probation so as to be further assisted.

As it is recommended that this programme be first mounted in the form of mini pilot schemes in a small number of designated schools, formative and summative evaluation of this pilot schemes by the principal evaluator from N.I.E.C and the Senior committee from the department of education should be taken. If proved successful, the programme will be ready for institutiionalisation at Macro-level.

Because the recommended model will be school-based, the following will confine itself to the guidelines for a school-based induction programme as indicated by Bolam et al (1975). These guidelines will be adopted for this model.

5.8.1 SUGGESTED CRITERIA FOR A SCHOOL-BASED INDUCTION SCHEME

Criterion 1 The policy should have a defined induction policy

There are written statement of induction policy which:

1.1 indicate the aims of induction within the school;

1.2 provide for all induction activities to be planned, programmed, recorded and evaluated;

1.3 is in line with the Local Education Authorities (L.E.A) policy of induction;

1.4 include provision for school and external centre-based activities;

1.5 indicate any special release or time-table arrangement for beginner teachers;

1.6 indicate the induction responsibility of the following people:

(a) head;

(b) deputy heads;

(c) heads of department/faculty;

(d) heads of house/year;

(e) teacher tutors;

(f) other experienced teachers;

(g) beginning teachers.

Criterion 2 This policy has been made known within the school

All staff, particularly those in senior positions, are aware of the school's policy and of their specific induction responsibilities.

Criterion 3 An appropriate member of staff has overall responsibility for seeing that the school's induction policy is carried out.

The heads discharges the responsibility for planning, controlling, and reviewing the induction scheme, but may well delegate this to, for example, the deputy head or teacher tutor.

Criterion 4 The school has produces an induction training plan for the year ahead

The school's training plan is based on an analysis of its induction training needs for the year ahead and will show:

4.1 who needs to be inducted;

4.2 what induction training they are likely to need;

4.3 how they will be inducted;

4.4 when the induction training will take place.

Criterion 7 Induction scheme records are maintained.

A record is maintained of the following:

7.1 school induction activities;

7.2 department/faculty induction activities;

7.3 house/year induction activities;

7.4 the progress of individual new teachers.

Criterion 8 The scheme is a monitored and evaluated

8.1 there is a procedure for monitoring the scheme and obtaining feedback from all those involved about its progress;

8.2 there is a procedure for evaluation the scheme and for obtaining the opinions of all those involved as to its effectiveness.

Having looked at the criteria used for school-based induction, the next chapter provide recommendation, a summary and the conclusion to this study.