

3. THEORIES OF EDUCATIONAL SYSTEM PLANNING

3.1 INTRODUCTION

In this chapter the importance of educational system planning as well as theories propounded by various educational system planning theorists will be dealt with. These theories will be discussed in detail because this work is based on educational system planning with particular reference to Bophuthatswana.

According to Rupert (1979(a):2) the educational system planners should understand and sympathise with their cultural group, people or nation. They should also know the aspirations of the people they are planning for. It therefore stands to reason that educational system planners who do not identify themselves with the nation cannot normatively plan for that nation. It is important to note that education and educational systems have always been planned but the professional educational planner is a newcomer to the field of educational administration (Rupert, 1979(a):8). The educational system planner should be a person who knows and understands the following: the religious ground motif of the people, the number and distribution of the population, the economic strength of the country, the climate of the country, the culture and the history of the people, the language and the religion of the people he is planning for. Put differently, he must ideally be part of that nation.

3.2 THE NECESSITIES OF EDUCATION SYSTEM PLANNING

Planning a system of education is not something to be regarded as a mere academic exercise. This venture must therefore be regarded as an act of intention. Educational system planning is based on scientific research. The following are the necessities of educational system planning:

3.2.1 Giving education cultural foundations

With the understanding and knowledge of the culture, religion and above all the spiritual force of the people the educational system planner can effectively base his recommendations on the culture of the people he is planning for. The system of education based on the culture of the people will be most normative because it will in no small measure be part of the community life. It is practically anti-normative to impose a foreign system of education on to other nations (Barnard and Vos, 1980:33). The reader should understand that in recommending that education must be based on culture of the group, the importance of integration and differentiation has not been overlooked. Therefore the culture of the group one is planning for must be taken as a point of departure in planning for that group or nation.

3.2.2 Pointing a direction of education

Educational systems must have short-term, medium-term and long-term objectives (UNESCO, 1969:15). In well-re-

searched systems of education these objectives will be well defined. In this manner educational system planning will start at some point and progress towards the long-term objective. Where there is no proper planning, long-term objectives will be attempted before short-term objectives and that will result in inefficiency of the system of education.

3.2.3 Giving education scientific foundations

One of the prerequisites of educational system planning is scientific research. It therefore stands to reason that an educational system which has been the result of intensive research will have scientific foundations. A system of education which is not based on research will degenerate into mere emotional statements of those in authority. For the educational system to be productive and economic, education will have to be based on research. This research must be continuing all the time. It should be an ongoing process (Rupert, 1976:153).

3.2.4 Education must have a character

The character of education must be a reflection of the religious ground motif of the nation. In Christian countries education has both a national and a Christian character. Behr (1978:30) declares that the "exponents of CNE (Christian National Education) believed that God ordained that there should be an Afrikaner nation, with

a land and language of its own, and a religion based on orthodox Protestant-Calvinistic principles". Educational system planning will therefore make this character evident.

3.2.5 Gearing education to the development of the country and its peoples

The effectiveness of the educational system is measured by the extent of the development of the people and the country. A system of education which is well planned will result in the development of both the country and the people.

3.2.6 Forestalling wastage of human material

According to Verwey (1981:18) the educational system of a country is the main producer of manpower of quality or human capital. If what Verwey says in this paragraph is true then no country worthy of the name can afford to leave its system of education unplanned. An educational system involves human material. It is therefore the responsibility of the educational system planner to see to it that the system of education he is planning should effectively forestall wastage of this vital material. The educational system planner should plan a type of educational system that will keep drop-out rates low by placing every child in his/her right place or educational direction. The educational system planner should

also create enough educational opportunities for all. To be able to do the above the educational system planner needs to know theories of educational system planning. The following sub-section of this chapter will be devoted to such theories.

3.3 THEORIES OF EDUCATIONAL SYSTEM PLANNING

3.3.1 South African theories of educational system planning

3.3.1.1 Introduction

In view of the fact that Bophuthatswana had been part of the Republic of South Africa it becomes imperative to make a study of the South African theories of educational system planning. The South African theories of systems of education are far more normative in comparison with the overseas theories of educational systems for African states. Thembela (1978:37) asserts that "research on the development and planning of educational systems has therefore taken a somewhat different course in South Africa where an interesting educational system theory has developed and is being expanded. This theory is scientifically well-founded and sufficiently comprehensive to serve as a basis for educational system planning".

3.3.1.2 Rupert's contribution towards educational system planning

3.3.1.2.1 *Stages of planning*

Rupert (1979(b)19-21) asserts that educational system planning can be divided into the following stages:

3.3.1.2.1.1 *Research*

Conventional research may be divided into problem-directed and basic research; however, it is not always certain where the dividing line lies. In the more developed countries of the world national research institutes or divisions of institutions are founded and maintained by the state but are not part of the ordinary civil service.

Research alone or research combined with other aspects of planning is frequently the particular responsibility of a special section of the Ministry of Education. International organizations also undertake educational research. In all these instances research is usually problem-directed, that is, it is aimed at the solution of specific practical problems (Rupert, 1976:153).

Basic research is usually the work of the university personnel (Rupert, 1979(a):9). Basic research consists partly or entirely of profound reflection on education based on many years of study and experience on the part of the research worker. Without the firm philosophical foundations which are the result of profound thought, educational planning goes forward without the collected data having been properly collated and interpreted, without a clear

knowledge and understanding on the part of the planner of educational goals and norms. Put differently, without the planner knowing what he is really doing or trying to do (Rupert, 1976:153-154).

3.3.1.2.2 *Discussions and deliberations*

Rupert (1979(a):9) declares that ". . . information gained from research, together with the goal which it is wished to attain, are discussed formally by special permanent or ad hoc committees or commissions instituted for the purpose and or informally by everyone or anyone involved in the matter in hand or just interested in it. These discussions include those of teachers' associations and local bodies of all kinds as well as the man in the street. In the case of the individual planner the accent may fall on deliberation rather than discussion with others". Rupert (1976:156) further declares that ". . . the more differentiated the community and the more intricate the pattern of its educational administration, especially if the latter is a branching pattern and the community is democratic, the more necessary it is to make special provision for discussion, deliberation and co-ordinated planning".

There are other administrative and statutory bodies whose duties go beyond discussion and deliberations and include actual, co-ordinated planning and decision-making with regard to the whole or substantial part of the system. All advice and research findings reach them in a summarized form after having undergone a process of selection

and elimination at the hands of organs operating on a lower or more specialized level (Rupert, 1976:157).

3.3.1.2.3 *Decision-making*

Deliberation leads to decision on how to go about solving problems in hand. At this stage planning is completed and the plan is handed over to the correct persons or bodies, via the correct channels, for implementation. Planning at the lower level always takes place within the framework of policy laid down at a higher level and, in turn, lays down policy for decision at a still lower level. It is often essential for a planner to obtain approval for a plan from a more senior official as an intermediate step between planning and implementation (Rupert, 1979(a):9).

3.3.1.3 *Planning levels*

Rupert postulates two planning levels.

3.3.1.3.1 *Planning in broad outline or policy planning*

This consists of the more formal aspects of the three stages listed above and is frequently concluded by policy decision by the permanent administration, head of the education department or the political head (Rupert, 1979(b):10).

3.3.1.3.2 *Planning in detail within the broad outline or elementary planning*

This takes place in an education department, school, college or any other elementary organ of the educational

system. The three stages listed above are present here too, but the whole process of planning is closer to actual implementation in the system of schools and colleges than is planning in broad outline (Rupert, 1979(b):10).

3.3.1.3 Stone's contribution to educational system planning

Stone (1981:65) distinguishes between natural and cultural determining factors in educational system planning. These factors have a tremendous influence on educational system planning as it will be shown in subsequent paragraphs.

3.3.1.3.1 *The demographic factors*

Number, space and movement are collectively known as demographic factors. The easiest way of recognizing phenomena is with reference to number, space and movement. The autogeneous laws operating in each of these factors or reality provide the simplest means of identifying educational statistics of every country (Stone, 1981:66).

Statistics relating to pupils, teachers, classrooms, teacher-pupil ratio etc. are examples of the numerical aspect of an educational system.

Educational systems have a spatial aspect because of

their territorial relatedness to a region, province or state. Therefore erecting a variety of schools in a sparsely populated region is not advisable as a small number of pupils and their distribution over a wide area (space) will justify at most one school and that of a comprehensive type. Therefore a type of a school which can accommodate a variety of courses or schools which can combine primary and secondary sections can be relevant for certain sparsely populated areas (Stone, 1981:66).

Stone (1981:67) says that recently the situation of a pupil living far from a school has changed in terms of the movement aspect. The availability of transport makes it possible for parents to send their children to bigger schools. In South Africa, for instance, smaller schools are being closed down and parents send their children to bigger schools in the towns nearest to them. One-teacher schools remain only in remote areas. The reader must, however, know that this is mainly true of White education. Population mobility is also linked to this, for instance people are inclined to leave country districts for towns. This movement to urban areas has brought about a decrease of educational provision in some parts of South Africa and an increase in others. It therefore stands to reason that educational systems display aspects of movement. It is also interesting to know that in South Africa the general mobility of the population has created a need for uniformity in the education

provided by various educational departments so that migrating pupils will not suffer (Stone, 1981:67).

3.3.1.3.2 *The physical factor*

The physical nature of a country, be it climate, seasons, topography or raw materials has a visible effect on the educational system. The physical factor affects things such as the school system, the school buildings and equipment, the means and methods of transporting school children, the age limits of compulsory attendance. For instance, in order to facilitate concentration, schools in the subtropical regions of South Africa open and close earlier, thus avoiding the midday heat (Stone, 1981:69).

3.3.1.3.3 *The biotic factor*

Stone (1981:69) maintains that school subjects such as Physical Education, Physiology, Biology and Hygiene, food schemes in poorer communities and medical and dental auxiliary services make it obvious that education has a biotic aspect. Stone further argues that school buildings and amenities should be adapted to the sizes and needs of the growing bodies of children of consecutive age groups. Safe playgrounds, hygienic classrooms, correct ventilation, lighting and soundproofing, medical services for pupils in a school context, special education for the physically handicapped - all these show clearly that education has a

biotic side. The fertility of a given people also has a great impact on the educational system.

3.3.1.3.4 *The psychological factor*

Differences between people and even between races are sometimes reduced to the physical level. There are definite signs that an educational system reflects the nature of the people, its mentality, innermost feelings, loves, piety, motivation, fears, doubts, dislikes and preferences. A national feeling of unity becomes apparent in the unity of an educational system, and national division in its lack of unity (Stone, 1981:71). The school should take account of the society from which the child comes in order to prevent a "psychic short circuit" between education at home and at school. The mental and emotional well-being should be fostered. The varying psychological abilities, aptitudes and development of the young should be matched by an accompanying differentiation in educational provision. Special provision should be made for the education of psychically deviant children, those with serious learning handicaps (Stone, 1981:72).

This discussion leads us to Stone's explanation of the cultural factors. With regards to cultural factors Stone (1981:72) argues that the educational system functions in obedience to the demands of what ought to be and therefore of norms which can be transgressed. In the context of

cultural factors determinism has no place.

3.3.1.3.5 *The analytic or logical factor*

According to Stone (1981:73) the fact that the various components of the educational system are systematically and orderly arranged is a clear proof that an educational system has an analytical factor. The various components of the system depend on differentiation within the community to which it belongs. The best form of differentiation in the micro-organisation of educational system is the centralistic or decentralistic organisation of educational systems. Corresponding to vocational differentiation schools offer different basic courses as preparation for later vocational training.

3.3.1.3.6 *The cultural-historical factor*

To quote Stone (1981:74): "Everything which exists in time has a cultural-historical aspect."

In the passage of time educational systems have developed a more complete form, they therefore have a history. In the course of time when people disagree with what is important and should be learnt and valued, education is involved in these arguments with all its achievements and with all its conflicts and failures. Educational systems are therefore part of cultural history. The differences between systems is brought about by the involvement of

every educational system with the culture of its own national community. Educational systems have to respond to the needs of the society in which they function. The education planned for a nation ought to be linked to the cultural-historical aspect of the community concerned (Stone, 1981:74-76).

3.3.1.3.7 *The linguistic factor*

An educational system should be determined by the language situation in the country concerned. In unilingual countries there is only one medium for both the people and education. The pupil's mother-tongue is the most favoured medium. Terminology and symbols are part of the linguistic aspect of educational systems (Stone, 1981:77).

3.3.1.3.8 *The social factor*

The term "social" as used here applies to the aspect of communication or intercourse displayed by the educational system. This term also refers to contact between educators and pupils in the pedagogic-didactic situation, and also to the colleagues working with each other in a hierarchical line such as the assistant teacher and the school principal, or inspector, the chief inspector and the heads of education. Therefore it affects educational administration. More than this, studies about various societal relationships reveal this aspect (Stone, 1981:79-80).

3.3.1.3.9 *The economic factor*

Economic activities have influenced the various ways in which the organisation of the school system has developed during different periods. For that reason, the educational needs of an agricultural community differ from those of a mining state. The instruction and training provided in an educational system should be correlated with the economic realities of the country concerned. It is also essential to note that education also influences the economy. Educational financing is also relevant here (Stone, 1981:82).

3.3.1.3.10 *The aesthetic factor*

Educational systems have an aesthetic factor. The appearance of school buildings and school grounds is of great importance. To quote Stone (1981:83): "The architecture of the buildings and the layout of the terrain ought to present a unity with the art, music, ballet, literature which are taught to pupils as part of culture."

3.3.1.3.11 *The juridical factor*

An educational law has a juridical aspect in that, among other things, it comprises an integration or coherence of various societal structures concerned more or less directly with public education under the rule of public law. There is also an internal law of the school (Stone, 1981:84). An introduction of "school law"

as a subject in the curriculum of Bophuthatswana Education Department will be a break-through because it will increase the legal competence of schools in drawing up juridical orders to regulate their internal affairs. The relationship between education and politics is included in the relation between the state and education. Finally the educational system of any country mirrors fairly accurately the political policy in the country (Stone, 1981:85).

3.3.1.3.12 *The ethical factor*

Character formation of the young is the first ethical concern which springs to mind in education. Stone (1981:85-6) asserts that ethical questions are mirrored in educational problematics. In the ethical field a system of education reflects the view of its time and place.

3.3.1.3.13 *The pistical factor*

Every person holds certain convictions, and he acts in accordance with his convictions including when planning an educational system. Religious faith has a great impact on the educational systems of the world. The educational system of a Christian country will undoubtedly differ from an educational system of a Muslim country (Stone, 1981:86).

Although there is a difference between the above-mentioned factors, they cannot be separated because the functioning

of the educational system in one of the determining factors takes place in coherence with others in such a way that the separation of one of them is impossible.

3.3.1.4 Vos' guidelines for educational system-planning

Vos gives the following guidelines as basis for educational planning:

3.3.1.4.1 *The first guideline*

Vos' first guideline or directive states that ". . . geen enkele onderwysstelsel vir alle gemeenskappe geskik is nie" (1976:166). Since communities differ in religious ground motifs, level of civilization and culture, it stands to reason that their systems of education will also differ. Therefore educational systems cannot be transplanted from one country to the other. In educational system planning it is therefore important to give recognition to the presence of universal influence by cosmic factors under the guidance of the religious ground motif and local realities. Therefore the system of education could be planned to reveal its identity (Vos, 1976:166).

3.3.1.4.2 *The second guideline*

Here Vos postulates that educational system planning must take into account the goals of a society as these goals exist in a particular society and are articulated by its

leaders. Vos (1976:167) states that "verantwoorde onderwysstelselbeplanning stel die eis dat dit aan die hand van duidelik omlynde doelstellings sal geskied soos hierdie doelstellings in die gemeenskap lewe en deur die leiers geartikuleer word".

3.3.1.4.3 *The third guideline*

The third guideline states that educational system planning must be done under the leadership of the national government. Harmonious co-ordination is of the utmost importance for any educational system. The function of the state in education therefore becomes obvious. The national government eradicates the possibilities for a foreign government to control their education (Vos, 1976: 168).

3.3.1.4.4 *The fourth guideline*

Education alone is not in a position to promote national developments on all fronts. Vos (1976:169) puts it in this way: ". . . die onderwys alleen is nie in staat om nasionale ontwikkeling op alle fronte te bewerkstellig nie". Educational planning has to be brought in relation to the total development of the community. Education should be regarded as but one thread in the fabric of national development.

3.3.1.4.5 *The fifth guideline*

The correlation between the educational system and the community must be maintained. This correlation needs to be considered by all educational system planners. Where education is expected to stimulate and support national development, it is important that education should be a partner of, for instance, political and economic systems (Vos, 1976:170).

3.3.1.4.6 *The sixth guideline*

This guideline refers to the requirements that educational system planning must be approached from a pedagogical perspective. The educational system is a structural coherence of the pedagogical and non-pedagogical matters like economic and politics poses the danger of undermining pedagogical issues. It does not mean that only pedagogical motives are responsible for educational systems. The coherence between education, economy, church, politics and other social relationships is undeniable. In this connection Harbison (1967:22) declares: "The successful, effective education planner . . . should never, under any circumstances, assume that he must be subordinate and subject to the whim and fancy of the general economic development planner."

3.3.1.4.7 *The seventh guideline*

This guideline avers that realities and not only aspirations must be taken into account. If the educational system planner becomes over-ambitious and overlooks the realities the products of his educational system will end up being frustrated because their aims will not be realised (Vos, 1976:173).

3.3.1.4.8 *The eighth guideline*

Responsible education system planning presents conditions that it will take place with particular focus to the past, present and the future.

The planning of the educational system must be time-bound. The task of the teacher in the fast-changing world and in the fast-moving economical development will be to prepare the youth so that they can cope with the tempo at which technology is moving. In the transitional stage continuity with the past becomes important because it ensures stability, and security for the future.

The harmonious functioning of the principles of differentiation, continuity and integration in the educational system planning is once more a necessity (Vos, 1976:174).

3.3.1.4.9 *The ninth guideline*

The necessity of central authority within the country of the educational system through a central body with a broad authority is here stressed. The central body will consist of the ministry of education, and administration of the department. In more developed countries the ministry of education has a say in formulating and determining policy (Vos, 1976:174).

3.3.1.4.10 *The tenth guideline*

The tenth guideline sets a condition that there should be research unit or units which must conduct research in respect of a particular nation.

Educational system planning presumes the collection, collation and interpretation of data, objectives, aspirations and reality through the use of various techniques and methods over a broad front with the aim of ultimately integrating it in the planning process (Vos, 1976:176).

3.3.1.4.11 *The eleventh guideline*

That the educational system planning will be done under the guidance of professional and well-trained planners is being stressed. The knowledge of the variety of methods, techniques, procedures and approaches in educational system planning is essential (Vos, 1976:176). A person who is

not trained in education planning can therefore not be expected to plan an educational system. After deciding on certain approaches or methods in educational system planning, they must be applied in local circumstances.

3.3.1.4.12 *The twelfth guideline*

This guideline emphasises the fact that the professional training of teachers must take into account the national cultural background of children (Vos, 1976:177).

3.3.1.5 Vermaak's contribution to educational system planning

3.3.1.5.1 *Problems of educational system planning*

Vermaak (1974:4-5) lists the following as problems regarding educational system planning:

- * Inequality in the educational system in respect of the expansion of primary, secondary and higher education.
- * Demand of teachers is too big for the existing facilities, too many children and too little accommodation.
- * Expenditure rises faster than income.
- * Non-financial bottlenecks e.g. too long periods of training the personnel for schools, and limited administrative

powers.

- * Not enough jobs for all who have received education.
- * Wrong type of education for types of jobs which exist in their world.
- * No correlation between general national aims and general education aims, not to mention normative educational objectives.
- * Political influences on educational systems. It has been pointed out that even while better planning will not easily solve this problems, planning will at least contribute to the easing of the problem.

3.3.1.5.2 *Theory and methods of educational system planning*

Education must of necessity have long-term, medium term and short-term facets. Education planning *per se* does not lay down the country's education policy and does not even take decision on that. It is, of course, an integral part of the administration of education and must naturally communicate with the process of decision formulation and the execution thereof. It helps those who should take decisions to be more enlightened and to analyse the specific objectives much more clearly (Vermaak, 1974: 6).

The following are questions on educational system planning for which answers should be sought (Vermaak, 1974:6).

- * the ground motif and the accompanying factors which influence the educational system;
- * priority objectives and functions of a particular educational system and of every subsection of the educational system;
- * different alternative methods to attain these objectives and functions;
- * what part of the country's resources will be devoted to education at the expense of national matters;
- * how the financial burden in respect of education should be divided; and
- * how the total sources which have been made available to education should be distributed.

These problems, referred to above, are approached differently by education planners, especially those in the developing countries. The educational literature on educational system planning methods distinguishes between approaches:

- social demand approach;
- manpower approach, and
- cost benefit approach (Vermaak, 1974:6).

3.3.1.5.3 *Research, documentation and the training for educational system planners*

The life-blood of educational system planning is the collection, ordering and interpretation of data over a broad front. Research and documentation are very important. Equally important is the training of educational system planners who can apply research results and the planning methods in practice (Vermaak, 1974:6).

The next sub-section of this chapter will be devoted to overseas theories of educational system planning.

3.3.2 Overseas theories of educational system planning

The following Overseas educational system planning theorists will be dealt with in this sub-section: P. Coombs, G.Z. Bereday, K. Aurins, V.L. Griffiths, A. Wolf and also theories given by UNESCO in the *Elements of educational planning*.

3.3.2.1 Coombs' contribution to educational system planning

3.3.2.1.1 *Social and manpower demand approaches*

Coombs (1970:38-40) distinguishes between the social demand and the manpower approach.

3.3.2.1.2 *The social demand approach*

This approach means the sum total of individual demands for education at a given place and time under prevailing cultural, political and economic circumstances. The following are points of criticism levelled against the social demand approach:

- * It ignores the larger national problem of resources allocation and implicitly assumes that no matter how many resources go to education their best use for national development as a whole.
- * It ignores the character and pattern of manpower needed by the economy and readily results in providing too many of some type and not enough of others.
- * It tends to over-stimulate popular demand, to estimate costs and lead to a thin spreading of resources over too many students, thereby reducing quality and effectiveness to the point where education becomes a dubious investment (Coombs 1970:40).

3.3.2.1.3 *The manpower approach*

Coombs (1970:40) asserts ". . . the development of human resource through the educational system is an important pre-requisite for economic growth and a good investment of scarce resources, provided the pattern and quality of educational output is geared to the economy's manpower needs".

3.3.2.1.4 *Recommendations in educational system planning*

Coombs (1970:33-34) makes the following recommendations in educational system planning:

- * Educational system planning should have a longer range view.

- * The planning of the educational system should be comprehensive. It should try to extend its vision to important types of non-formal education and training to ensure their effective integration with formal education and with the priority needs and goals of society.

- * The plans of broader economic and social development should be integrated with educational system planning. If education is to contribute most effectively to individual and national development, and to make use of scarce resources, it cannot go its own way, ignoring the realities of the world around it.

- * Educational management should be an integral part of educational system planning. To be effective the planning process must be closely tied to the process of decisionmaking and operations.

- * Educational system planning must be concerned with the qualitative aspects of educational development, not with quantitative expansions.

3.3.2.1.5 *Warnings to educational system planners*

Coombs (1970:32) sounds the following warnings to educational system planning:

3.3.2.1.5.1 *Wasteful imbalances in the educational system planning*

Wasteful imbalances in the educational system planning may refer to instances such as: too many schools built while only few teachers are trained to staff them or resources poured into university expansion while secondary education lags behind.

3.3.2.1.5.2 *Costs rising faster than revenues*

Many countries have never tested the economic feasibility of targets, and in many countries in which they have been tested costs have been under-estimated and prospective

income over-estimated. As a result, these countries were faced with a choice of three possibilities, viz-:

- cut back their initial targets;
- spread available resources more thinly over more and more pupils at the expense of quality;
- high drop-out and repeaters' rates, overcrowded classrooms and education in name only.

3.3.2.1.5.3 *Non-financial bottlenecks*

Non-financial bottlenecks include limited administrative abilities of educational system planners to plan and transform plans and money into desirable results.

3.3.2.1.5.4 *Too few jobs for the educated people*

The system of education must prepare people for jobs. It becomes very frustrating for people to spend some time in a school only to find that at the end of their courses there is no work for them. Not only are the services of these persons lost to the nation, but so is also the money spent on educating them. The educational system planners should therefore make sure that the products of their system of education will be absorbed in the economy.

3.3.2.1.5.5 *The wrong kind of education*

Giving people the type of education which is not marketable increases the drop-out rate and social problems associated with unemployment. It is the task of the educational system planner to see to it that every child is placed in the right course, that is, courses with practical value. However, Coombs (1970:32) maintains that even the best educational system planning cannot completely eliminate all these problems in developing communities.

3.3.2.2 Bereday's contribution to educational system planning

Bereday (1977:11) maintains that the following elements are evident in educational system planning:

- * a set of decision; and
- * the process of preparing.

Planning is substantially and in most cases, also formally and logically a process of preparing a set of decisions to be approved and executed by some other organs. Even if the same unit combines planning functions with authority to approve and execute, these are distinct, though interdependent processes which must be kept analytically separate. Planning is the process of preparing a set of decisions for actions in the future. The overall planning of education is a continuous, systematic process,

involving the application and co-ordination of social research methods and of principles and techniques of education, administration economics and finance, with the participation and support of the general public in education for the people, with definite aims and in well-defined stages, and to providing everyone with an opportunity of developing his potentialities and making the most effective contribution to the social, cultural and economic development of the country (Bereday, 1977:11-15).

3.3.2.3 Aurin's contribution to educational system planning

Aurin (1969:81) maintains that empirical research in the service of educational planning is necessarily a task-oriented research.

Aurin recommends that empirical research be as independent of educational system planning as possible. But in its supportive function for planning, it has an instrumental character.

Educational system planning requires data of a prognostic nature. It must also include experiments and pilot projects as well as comparative studies of effectiveness of certain school features and development of teaching models.

For effective long-term planning it is essential to discern significant development trends and their counter-currents to demonstrate barriers and abstractions and their

causes (Aurin, 1969:81).

According to Aurin (1969:81-82) causal factors may lie in the educational system or in the narrow social and economic environment of the educational system. The study projects undertaken in the course of educational system planning may be systematically grouped as follows (Aurin, 1969:82):

- * research of basic, partial, and special problems concerning the overall concepts of educational system planning;
- * system research, including comparative studies;
- * development of models and testing of their component factors;
- * school and classroom experiments and their evaluation;
- * research into teaching media practices;
- * regional case studies of special problems; and
- * investigation of the views and attitudes concerning educational system planning problems held by the public or certain social groups.

Educational system planning naturally depends on the educational goal society has established in the face of contemporary tasks and future aspirations.

The differences in social and educational milieus require different educational measures. The planning of such measures requires more information, especially discussions with teachers, parents and community councils. This form of co-operation by all concerned groups is not only pedagogically sound but that it is the only proper way to proceed in a democratic society (Aurin, 1969:84).

3.3.2.4 Wolf's contribution to educational system planning

3.3.2.4.1 *Models of educational system planning*

Wolf (1976:86) distinguishes the following educational system planning models:

* The future need for workers

The future need for the workers is calculated on the basis of the present need and the growth rate of economic development.

* Demand for training places

This model refers to the number of necessary training places. Here statistical calculations are necessary

to avoid planning without any relation to reality.

- * Economic yield to be recouped from training

This model compares the training expenditure with the financial return.

3.3.2.4.2 *Phases of educational system planning*

Wolf (1976:88) mentions Klafki's phases as steps for a strategy of planning as follows:

- * The information phase in which as many as possible accurate data on the existing educational systems are assembled and assessed; and
- * the programming phase in which a programme is outlined for the aims to be achieved.

3.3.2.4.3 *The requirements of educational system planning*

Wolf (1976:90) lists the following requirements for the educational system planning as given by Klafki:

- * Educational system planning must be global, that is, it must consider the whole society and therefore plan within the whole society.

- * The planning of the system of education must advance from planning within the system to planning of the system.
- * Educational system planning must be subjected to constant revision such as results from effectiveness of control and the analysis of error sources, that is, it must be organised as a revolving system.

3.3.2.5 Griffiths' contribution to educational system planning

3.3.2.5.1 *Basic ideas which underlie modern systems of education*

Griffiths (1962:8-9) gives the following as the basic ideas which underlie modern systems of education:

3.3.2.5.1.1 *The national character of systems of education*

The difference in systems of education of various countries emanates from the particular culture of each country, difference in needs between countries, from the amount of money available and from administrative convenience. In Britain for instance it is accepted that religion should play a part in school life whereas in France and Russia this idea is not accepted.

3.3.2.5.1.2 *Division of the educational ladder*

In some systems of education the main moves in a child's educational progress are based on his age and not on his knowledge. In most systems of education a child may not move up from one stage to another until he had passed an examination. The general opinion now is that the children benefit from being with their peers. To encourage the child he should move up in school with his age group.

Common sense has to be used in following this principle because in some situations its results can be detrimental.

There are 3 main stages of education which are generally recognized. These stages correspond to the stages of childhood, adolescence and manhood. Those stages are:

- * Primary Education up to about 12 years of age;
- * Secondary Education from about 12 to 18 years; and
- * further and Higher Education from about 18 years onwards (Griffiths, 1962:11-13).

3.3.2.5.1.3 *Kinds of education*

Griffiths (1962:15) distinguishes between general

and vocational education. He maintains that in the general education pupils are taught a variety of subjects whereas in the vocational course the curriculum is limited to those subjects which are necessary for success in the job.

3.3.2.5.1.4 *Present-day ideas about children's difference in intellectual ability*

Modern systems of education attach importance to finding out the intelligence of children as well as what they know. This is because differences between children become more important at the secondary stage. Some children cannot follow an academic secondary course. So other courses are arranged for them. This has affected the content and organization of secondary education (Griffiths, 1962:17-19).

3.3.2.5.1.5 *The modern view of the kind of qualifications needed for success in earning a living*

Examinations are now the main way of entry into the better jobs. But progress in a job still depends on having an active mind and being reliable, co-operative and hard-working (Griffiths, 1962:19-21).

3.3.2.5.2 *Recommendations in educational system planning*

The following are recommendations in educational system planning made by Griffiths (1962:9-41):

3.3.2.5.2.1 *Systems of education are national*

Educational system planning should proceed from the national culture of the people. Ideas from elsewhere in educational system planning should fit in with the culture, the traditions, the needs, the finance and the administrative situation of the country.

3.3.2.5.2.2 *The supply of trained staff*

Teaching personnel should be considered when planning courses and the allocation of pupils to these courses.

3.3.2.5.2.3 *Unity as a national goal*

It is sometimes hoped to encourage unity as a national goal in the following ways (Griffiths, 1962:33-39):

* State schools for all

The same kind of schools for everyone may help to bring about unity. But it is important to note that to close a school to a special group may cause that group to feel more strongly opposed to the rest of the nation. The answer as to whether private schools should be allowed will depend on whether there would be a serious conflict as the result of abolishing such schools.

- * The same school for the clever and the dull

A comprehensive school for all the children is the best because of its differentiated curriculum.

- * Literacy for all

The aims of literacy for all are to enable people to read and write and to prepare people for available jobs.

3.3.2.5.3 *Points to consider when determining priorities for educational system planning*

Priorities are very important in educational system planning. The following should, according to Griffiths (1962:66), be considered when determining priorities for educational system planning:

- * the immediate needs of the country;
- * general long-term needs;
- * money shortage;
- * international aid;
- * availability of properly trained teachers; and
- * further development of educational systems.

3.3.2.5.4 *Objectives in educational system planning*

3.3.2.5.4.1 *A minimum objective*

Griffiths (1968:25) maintains that it will be necessary to introduce teaching matter more closely related to the needs and interests of the country around the school. This supplementary material needs to be made specific to a locality.

The resources necessary to introduce these simple adaptations of teaching to local conditions are not very great. Two or three experts, employed for a year or two, could analyse the existing syllabus and texts aided by inspectors and training college staff. The people could also be responsible for organizing short refresher courses to train teachers in the use of the new material (Griffiths, 1968:28).

3.3.2.5.4.2 *An intermediate objective*

A small unit of experts on different parts of the primary school curriculum, for instance, will form the core of the movement for reform. Their function will be to prepare in detail the lesson and supplementary materials for all classes in all subjects. Whatever their subject specialities they must work in the closest co-operation with one another to counteract the common habit of putting new ideas into separate compartments of mind (Griffiths, 1968:29).

3.3.2.5.4.3 *A maximum objective*

This objective aims at the improvement of personnel. Enriching reading material must be made available to teachers.

3.3.2.6 Educational system planning according to UNESCO's elements of educational planning

3.3.2.6.1 *Activities preceding educational system planning*

UNESCO (1969:13) asserts that in determining the main objectives of educational system planning the following merit noting:

- * equal education for both sexes;
- * abolition of any form of discrimination on the grounds of race, colour, sex, language, religion, economic status or birth;
- * the major aims of long-term educational system planning should take account of the following considerations:
 - social and economic development of the country;
 - how far are the educational services quantitatively and qualitatively adequate to meet the educational needs;

- * the economic strength of the country; and
- * necessary changes in the administration of education.

3.3.2.6.2 *Requirements of educational planning*

UNESCO (1969:15) gives the following as the most important requirements of educational system planning:

- * personal whims should not be allowed to divert educational system planning from its essential planning;
- * application of scientific methods should be introduced in studying the educational, cultural, social and economic realities of the country;
- * an objective appraisal of the needs and of the choice between short, medium and long term solutions;
- * realistic appraisal of the possibilities in terms of the human and financial resources necessary for effective application of the proposed solutions;
- * continuity in order to ensure systematic pursuit of the objectives;
- * flexibility, to cater for adaptations of the plan to unforeseen or unforeseeable situations;

- * teamwork, to ensure efficient and co-ordinated effort;
- * internal co-ordination between the educational services themselves and between these and the other State services, at all levels of public administration; and
- * periodic reappraisal of the plans and their constant adaptation to new needs and circumstances.

3.3.2.6.3 *Essential elements of educational system planning*

UNESCO (1969:15) gives the following as essential elements with which educational system planning is to be concerned:

3.3.2.6.3.1 *Quantitative planning*

This refers to all questions involved in the expansion of educational facilities, based on pedagogical, demographic, geographic and social factors.

3.3.2.6.3.2 *Qualitative planning*

This refers to aims, content and methods of education, in particular the structure of educational systems,

curriculum planning, teacher training, educational guidance, pedagogic research, text-books and other teaching aids.

3.3.2.6.3.3 *Administration of education*

This refers to school administration and supervision. It is concerned with the administrative structures and procedures of personnel.

3.3.2.6.3.4 *Financing of education*

This refers to needs, assets, costs, sources of finance, distribution of expenditure, grants and loans.

3.4 CHAPTER SUMMARY

3.4.1 South African theories of educational system planning

Rupert's maintains that the educational system planning consists of the following stages: research, discussions and deliberations and decision-making. She further postulates the following two planning levels: planning in broad outline or policy-making and planning in detail within the broad outline.

Stone's (1981:65-86) contribution has been discussed in

so far as he asserts that in educational system planning the following be considered: the facets of number, of space, of movement, of the physical, of the biotic, of the psychic, the analytic, the cultural-historical, the linguistic, the social, the economic, the aesthetic, the juridical, the ethical and the pistical.

The following guidelines of Vos (1976:166-178) are outlined as follows:

The first guideline claims that no single educational system can serve all the communities.

The second guideline declares that a system of education will function well in well-analysed objectives. These objectives should be found in the community-life and should be articulated by community leaders.

The third guideline claims that a responsible educational system will take place under the leadership of national leaders.

The fourth guideline states that it must be realized that education alone cannot bring about national development on all fronts.

The fifth guideline declares that there is correlation

between the educational system and the community.

The sixth guideline states that a responsible educational system will function from pedagogical perspectives.

The seventh guideline asserts that not only aspirations but also realities should be taken into account in planning.

The eighth guideline gives the condition that responsible educational system will function with focus to the past, present and the future.

The ninth guideline gives a condition of central control within the state of the educational system through the central body with broad authority.

The tenth guideline cites the importance of the research unit to do scientific research in respect of the particular nation.

The eleventh guideline maintains that educational system planning will take place under the guidance of trained planners.

The twelfth guideline declares that the professional training of teachers should take into account the child and his national-cultural background.

Vermaak's (1974:4-6) contribution to the educational system planning is that he stresses the importance of short, medium and long-term objectives in educational system planning. He also mentions the importance of research in educational system planning.

3.4.2 Overseas theories of educational system planning

Coombs gives warning to the educational system planners. He warns that the educational system planners should guard against the following: wasteful imbalances, costs rising faster than revenues, non-financial bottlenecks, too few jobs for the educated and the wrong kind of education.

The theories of Bereday in educational system planning have been discussed in so far as he gives elements which are evident in educational system planning viz. a set of decisions and the process of preparing.

Aurin maintains that the empirical research should be independent of educational system planning.

Wolf distinguishes three planning models of educational system planning viz. one based on the future need for workers, the other one on the coming demand for training venues and the last one on the economic yield to be expected from training.

Griffiths' contribution to educational system planning has been discussed in so far as he highlights down-to-earth matters to be considered by the educational system planners in developing countries.

The contribution of UNESCO by way of the *Elements of educational planning* has been discussed. The following issues received attention: activities preceding educational system planning, requirements of educational system planning and essential elements of educational system planning.

In the next chapter the present system of education in Bophuthatswana will be discussed and evaluated in terms of Rupert and Stone's educational system planning theories. Rupert and Stone's theories have been chosen because of their comprehensiveness and practicability.