

CHAPTER TWO

RESEARCH METHODOLOGY

1. INTRODUCTION

There are various research methods that can be used in Public Administration. The nature of the discipline and the process required to generate debate that could lead to policy formulation, necessitates this study to use a variety of research methods that could assist in arriving at legitimate conclusions. Johnson (2002:5) indicates that researchers in Public Administration accept that things are knowable and can be quantifiable, but on the other hand, due recognition should be given to the growing importance of intuition, vision and reflective thoughts as sources of knowledge. This, therefore, suggests that other research methods other than the quantitative could generate knowledge. This study shall rely on qualitative method to analyse how schools manage and implement the National Curriculum Statement and the assessment policies and quantitative research method to determine how many educators are aware of, and understand the policies that govern their practice.

The research will provide a rationale for the choice of a qualitative research design for this study. Various qualitative research methods will be explained and the impact of this type of method at arriving at the conclusions reached shall be described.

2. Types of research

A research methodology defines what the activity of research is, how it progresses and what constitutes success. There are various kinds of research methodologies such as qualitative and quantitative approaches.

Quantitative research is used to answer questions about relationships among measured variables with the purpose of explaining and controlling phenomena, and it seeks explanations in order to make predictions that could be used to make generalisation to persons and new situations. The approach relies on the use of experiments to confirm or validate relationships that exist within the phenomenon under study.

When using a quantitative approach, the researcher needs to choose methods that would allow the researcher to objectively measure the variables and be able to draw conclusions that are not biased. In using this method the researcher is guided by carefully structured guidelines such as how hypothesis could be formulated and methods of measurement that have to be defined, Leedy and Ormrod(2005:95). Specific methods of collecting, analysing and reporting data, according to Leedy and Ormrod (2005:96), need to be identified and standardised with the intention to ensure objectivity and allow for the use of statistical analysis. This would enable findings to be reported through the use of numbers, statistics and aggregated data.

In this study a qualitative approach shall also be used, as it will assist in understanding how educators perceive the implementation of the National Curriculum Statement, how assessment is managed and whether the policy

documents that guide them in assessing the performance of learners are available to schools.

2.1. Qualitative research

Qualitative research methodology does not necessarily have to rely on numerical data to draw conclusions. Researchers who use this method to collect data operate under the assumption that reality is not that simple to be divided into clear measurable variables. These researchers believe that reality could be represented in the form of words, images, gestures or impressions which participants see or experience in real life situations, Leedy and Ormrod (2005:100).

Unlike in natural sciences where experiments could be concluded in a laboratory, in Public Administration the natural environment represents the laboratory where the researcher should observe the phenomenon. In this environment the researcher should use systemic observation to understand why the world works as it does. The research should, according to Leedy and Ormrod (2005:106) focus on phenomena in the ‘real word’ in order to get at what is quality meaning, and content or imagine reality in what people actually do instead of what they say they do. The researcher should study the phenomena in all its complexity. As pointed out by Leedy and Ormrod (2005:107), qualitative research should recognise that the issue under study has many dimensions and layers which should be portrayed in its multifaceted form.

Denzin and Lincoln (1994:2) states:

Qualitative research is a multi-method focus involving an interpretative naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural setting, attempting to make sense of, or interpret phenomena in terms of meaning people bring to them. Accordingly, qualitative researchers deploy a wide range of interconnected methods, hoping to get a better fix on the subject matter at hand.

This research studies how assessment policy is managing the implemented and managed in the senior certificate band in public schools. The research was conducted on how educators take a critical look at their method of assessing. The aim was to find out whether educators have the necessary skills and knowledge to manage the processes during the implementation of assessment policy in the public schools.

A researcher should bear in mind that qualitative data does not necessarily have a single ultimate truth, rather that there are multiple perspectives held by individuals and these view-points have equal truth or validity of the phenomenon, Creswell, (1998:17). Babbie (2005:148) indicates that validity is a term used to describe a measure that accurately reflects the concept that it is intended to measure. Therefore the qualitative researcher as pointed out by Creswell (1998:17), should be willing to spend extreme time in the field to collecting data, accessing and getting an inside perspective on issues at hand.

The researcher in this study is a curriculum advisor and some of his key functions include supporting educators in implementing National Curriculum Statement, determining areas where educators need assistance and training them on curriculum matters. This requires him to spend time with educators which afford him the opportunity to gather information on how National Curriculum Statement is being implemented in some schools. The qualitative research approach will therefore be best suited for this study.

Qualitative research studies according to Leedy & Ormrod (2005:134) serves one or more of the purposes such as:

- **Description:** Where the nature of certain situations, setting, processes, relationship, system or people can be revealed.
- **Interpretation:** This enables the researcher to gain new insights about a particular phenomenon, to develop new concepts or theoretical perspectives about the phenomenon, and/or discover the problems that exist within the phenomenon.
- **Verification:** Allow researchers to test the validity of certain assumptions claims theories or generalisations within real world contexts.

- Evaluation: This provides a means by which a researcher can judge the effectiveness of particular policies, practices innovations.

This study shall be guided by the abovementioned purposes of qualitative research as it seeks to evaluate the effectiveness of the National Curriculum Statement and National Protocol for Recording and Reporting, in addressing the learners' aspiration. At the same time the researcher would be conscious of the fact that there are numerous problems within the schools that impact on the successful implementation and management of educational policies. In order to evaluate the effectiveness of this policy, teachers' practices and their innovations in the implementation of such policies, the researcher should attempt to understand the situation, processes, systems, people and the relationships as they manifest in the school context. The study should endeavour to describe and explain what really happens in relation to assessment practices without making value judgments or attempt to induce any changes to the practice.

The qualitative research is one of the methods that could enable the researcher to gain access into the teachers' understanding, knowledge, beliefs and actions. This type of research method does not allow the researcher to identify cause- and- effect relationship or what causes what, Leedy & Ormrod (2005:137). The role of politics, economy and cultural influence in this complex social organisation should not be ignored. This method could accommodate and account for the complex and different views that manifest themselves in a school as a social setting. This will therefore

require the researcher to consider perspectives of teachers' selected in the sample, their experience and views when collecting data.

3. Research design

There are three prerequisites to the design of any research (Cohen and Manion, 1989:99). The specifications are:

- the exact purpose of the study
- the population on which the study is focused
- the available resources.

4. Purpose of the study

The researcher should identify and itemise the topics so that specific information requirements relating to the central purpose of the study and each of the issues under review, could be formulated. This will help in deciding on the most appropriate ways of collecting items for the study.

The purpose of this study is to provide a broad framework on policy analysis as a context to:

- understand the National Curriculum Statement and National Protocol for Recording and Reporting, and how these policies are managed
- analyse assessment practices at schools.



5. Population for the study

Identification and specifying of the population to which the enquiry relates is the second step in the research design. These specifications would influence both the sampling and resources, Leedy & Ormrod (2005:276). The population for this study shall consist of all the 254 schools in the Mopani District who offer tuition in the Further Education and Training Band. These schools should be public schools and offering Grade 10 – 12 classes during 2008 academic year.

The administration and management of schools in the district is decentralised into 24 circuits and these circuits are grouped into six clusters; namely Bolobedy, Giyani, Mamaila/Sekgosese, Ritavi, Phalaborwa and Thabina. The schools in the circuits are not distributed equally and the number of circuits in each cluster is also not equal. Due to the number of schools involved and the distances between schools a sample to learn about the larger population shall be drawn.

6. Sample

Mulder (1982:57) indicates that it is not always possible to include everyone concerned in investigating a phenomenon. In such an instance, the researcher will concentrate on a smaller group called a sample from the population that has particular features. The sample according to McMillan and Schumacher (1993:159) consists of individuals selected from a large group of persons. This smaller group according to Clarke and Cooke (1994:33) and Babbie (1995:226) should be a subset of the population from which the researcher

wishes to collect information for the purpose of drawing conclusions and to make generalisations. The sample should be carefully chosen to enable the researcher to see all the characteristics of the population in the same way the researcher would have, had he examined the total population. In other instances the researcher could select biased samples which are incidental. Mulder (1982:59) indicates that a biased sample is a sample in which a researcher has consciously excluded certain members of the population; while incidental sampling would mean that the researcher is limited to the group for his research project.

For the purpose of this study, each cluster should be represented. A proportional representative sample of 25% of the schools in each cluster was chosen. The 254 schools in the district were grouped into 24 circuits. The circuits are grouped into clusters. All the schools are allocated numbers to assist in sampling. An incidental biased sampling method was used to determine which schools in the different clusters should form part of the study. This type of sampling was aimed at ensuring that at least all the clusters are represented. From the sample only educators who offered lessons in grade 10, 11 and 12 formed part of respondents because the study intended to determine how they implemented the assessment policy.

Literature on policy analysis and management shall be used to determine the framework within which the management of the National Curriculum Statement and National Protocol for Recording and Reporting could be understood. Data on how the National Curriculum Statement and National Protocol for Recording and Reporting are implemented shall be collected through scrutinising observation records, documents and also through the

questionnaire. Interviews shall be conducted to probe deeply to seek clarity on areas that were not clear from the questionnaire and for the purpose of triangulation.

Challenges relating to the use of interviews as the main source of gathering information influence the size of respondents. The amount of time required to conduct interviews and the tight schedules that these respondents operated under might have contributed to the number of those who were willing to form part of the study. To this end a structured questionnaire was used rather than interviews because respondents could choose not to proceed and they could complete the questionnaire at leisure.

Fox (1969:549) states that a questionnaire is an instrument that is used by a researcher in an impersonal way to obtain information from respondents in a written way. The researcher is of the opinion that respondents could be objective if they are not subjected to a hostile environment. The questionnaire according to Mahlangu (1989:79) should be completed without any outside influence. The use of the questionnaire is also influenced by the situation in which the research is conducted (McMillan, 1989). It is pointed out that should a researcher wish to develop a new questionnaire, (s) he should justify why a new instrument should be developed since in many instances existing instruments could be used and/or adapted for use.

When developing questions to be used as items for the questionnaire, the researcher should bear in mind the objectives to be achieved. A choice between open or unstructured and closed or structured questionnaires should be made because if respondents perceive the questionnaire as demanding, the

likelihood is that they might not complete it. Mahlangu (1989:80) indicates that the use of a questionnaire in a research is regarded as a lazy man's way of gathering information, because respondents in a structured questionnaire merely choose answers from those provided. However, the use of an unstructured questionnaire demands more time from respondents and that could lead to them becoming reluctant to complete the questionnaire. The objectivity of responses from an open questionnaire might be questionable because respondents might be given more latitude in responding to items.

7. Construction of the questionnaire

After defining the objectives of the study and ascertaining that there are no existing instruments that could be used, persons conducting a research may write questions that could be used to generate responses and also consider the format to use when compiling the items. McMillan (1989) suggested ways that could be considered for writing effective statements or questions as a guide to writing items that would yield valid and reliable responses. The following suggestions by McMillan shall be borne in mind when developing a questionnaire for this study:

- **Make items clear:** An item is regarded to be clear when it leads all respondents to interpreting it the same way.
- **Avoid double-barrelled questions:** Double-barrelled questions contain two or more ideas. McMillan believes that if respondents were given an opportunity they could answer each statement differently.

- Questions should be simple: Long and complicated items should be avoided because they are difficult to understand, and respondents may be unwilling to try to understand them.
- Avoid negative items or biased and misleading questions: If the respondent is given hints as to the type of answer the researcher would prefer, there is a tendency to give the desired response.
- Respondents must be competent to answer: Questions that require respondents to recall specific incidents are subject to inaccuracy because respondents cannot reliably remember the incidents. Questions should be formulated in such a way that respondents are able to provide reliable information.
- Questions should be relevant: These are questions that are important to respondents, and address things that they care about.
- Ask sensitive and personal questions last.
- Use an indirect or third person approach to sensitive questions.

In addition to the abovementioned suggestions to be considered in developing a questionnaire to help improve the validity of the instrument, and therefore the conclusions to be reached from the data gathered, the researcher should be guided by the Ethical Protocol that indicates that the respondent could choose to be part of the study and discontinue at any time. The subjects should be afforded sufficient time to decide if they want to participate without any major inducement. The respondents have the right to know the type of information required of them. Questions posed to them should be clear and frank.

According to Denzin and Lincoln (1994:90) it is important to emphasise that the participant should be aware of an informed consent clause by which the subjects of research have the right to be informed that they are being researched and be told about the nature of the research. In collecting data one needs to be careful about the sensitivity of one's respondents. It would be unethical according to Kumar (1999:192), to consider collecting information without the knowledge of the participants, or without informing them and requesting their willingness to consent. McMillan and Schumacher (1993:183) posit that informed consent implies that the subjects have a choice to participate or not. In this research project, the researcher applied for informed consent before the implementation of his research methods.

The researcher requested permission to conduct research from the Limpopo Department of Education. A request to conduct research in FET public schools within the Mopani District was made. In the request letter, the researcher stated clearly what the research was about and who the researcher wanted to interact with (see Appendixes B and C). The safety and confidentiality of respondents was ensured through maintenance of a high level of integrity. Because the subjects of the interviews are human beings, extreme care must be taken to avoid anything harmful to them (Denzin and Lincoln, 1994:372) and the researcher must inform the subject of any risk or stress, if any is involved (McMillan and Schumacher, 1993:183).

There are both advantages and disadvantages associated with the use of a questionnaire. The following are arguments against the use of a questionnaire as an instrument to gather data:

- The researcher might not be able to clarify uncertainties that could lead to misleading conclusions.
- Some educators might be tempted to give responses that they believe are preferred by the researcher. Since the researcher is a curriculum advisor, respondents could perceive him as part of the system.
- The cost associated with postage could be high if a sample is very large.
- The completion of the questionnaire could be perceived as an add-on to the educators' duties which might result in some of them not returning, or returning an incomplete questionnaire.

Notwithstanding the challenges, the questionnaire as data-gathering instrument in social research has a number of strong points such as the following:

- A large number of respondents could be reached. For this study, a sample consisting of twenty-five percent of the schools in the Mopani District is targeted. The total number of schools is 254 and twenty-five percent thereof is sixty-three. The minimum number of educators per school shall be 7 because learners are supposed to be registered for 7 subjects per grade in the National Curriculum Statement. The total targeted respondents shall be five-hundred-and-four made up of sixty-three schools multiplied by 7 educators plus sixty-three school managers.
- Very little writing is required in completing the questionnaire. A structured questionnaire in this study shall be used in order to reduce the amount of time to complete it. This shall reduce the perception

that the questionnaire is an add-on to the educators' workload because this might lead to an incomplete questionnaire.

- Most schools in the district could be reached.
- If items are well-structured, the need to probe deeper and clarify misleading items could be minimised.

In order to yield information that should lead to a reliable conclusion, statements and questions that are included in the questionnaire should be valid.

8. Validity

The validity of the assessing instrument is dependent on the extent to which the instrument as a research tool relates to its appropriateness for assessing what it intends to assess, Leedy and Ormrod (2005:28); Mahlangu, (1989: 83); and Mulder, (1982:215). The appropriateness according to Mulder (1982:15) means the degree to which scientific explanations of phenomenon matches the realities of the world. In research as indicated by Bernard (1995:35) nothing is more important than validity, as it refers to the accuracy and trustworthiness of the instruments, data and findings. There are different forms of validity which each is important in different situations, Leedy and Ormrod, (2005:92). The following are forms of validity:

- Face validity refers to the particular characteristics of the instrument as a means to convince participants to cooperate.
- Criterion validity is the extent to which results of an assessment instrument correlate with one another.

- Content validity means to what degree the instrument succeeds in covering the field for which the test is done. This type of validity depends on the respondents' perception of the questionnaire.
- Construct validity refers to the extent to which the instrument measures characteristics that cannot be directly observed but can be inferred from patterns in people's behaviour, Leedy & Ormrod, (2005:92) and Mulder (1982: 216).

Bernard (1995:38) indicates that if data is not valid, neither would be the findings and conclusions from that data. In order to reduce biases and subjectivity the identity of respondents should be kept anonymous.

The questionnaire shall be piloted to a few individuals to determine clarity of statements and questions and also to determine whether items illicit similar responses.

9. Reliability of the assessing instrument

Mulder (1982:209) refers to reliability as the repeatability of a testee's score on the same test on different occasions, or the consistency with which an assessing instrument yields a certain result in different tests with equivalent items, or under different examination conditions, Leedy & Ormrod (2005:29). Reliability of the assessing instrument according to Leedy and Ormrod (2005:93) and Mulder (1982:209) suggest that the researcher should or might get the same answers by using the instrument to measure something more than once. This should refer to the dependability or trustworthiness of the instrument in consistently measuring whatever it is supposed to measure.

Leedy and Ormrod (2005:93) indicate that there are various forms of reliability that include:

- Interrater: this form of reliability indicates that if two or more individuals evaluate the same performance they should give identical judgment.
- Internal consistency: refers to the extent to which all items within a single instrument yield similar results.
- Equivalent form is when two or more different versions of the same instrument yield similar results.
- Test-retest: means that the same instrument when it is re-administered would yield the same results in two different occasions.

In order to enhance the reliability of the measuring instrument, the element of subjectivity should be minimized and the administration of the instrument should be consistent. Leedy and Ormrod (2005:93) suggest that something can be assessed accurately only when we can also assess it consistently. Through the use of a computer data base, programs to organise and interpret data in validity could be enhanced.

10. Conclusion

In this chapter, the methodology that defined the activity of the research, how it would progress and what would constitute the success of this study, was discussed. The qualitative approach to the study was employed as the perceptions of educators were key in drawing up conclusions. The purpose

of the study and the target population of the study were large enough to justify the use of a sample. The sampling method was also indicated. Data shall be collected through the use of a questionnaire that shall be administered to schools in Mopani district that offer grade 10 and 11 during 2007. Advantages and disadvantages of using a questionnaire were outlined. Factors that should be considered when drawing up a questionnaire as well as the ethical protocol for participating in the study were highlighted. Validity and reliability of measuring instruments were discussed. In the next chapter Public Administration shall be discussed.