

## CHAPTER THREE

### RESEARCH DESIGN AND METHODOLOGY

#### 3.1 Research design

Mouton (2001) explains that research design addresses the question: what type of study will be undertaken to provide acceptable answers to the research problem or question? As the first step towards describing the research design, it should be stated that this study is empirical. Mouton (2001: 51) describes what constitutes empirical study: "It is when the object, phenomenon, entity or event, one is interested in investigating is a real-life object". What gives the research an empirical character is that it employs qualitative methods of research namely interviews and analysis of texts. The two methods are some of the many methods used in qualitative research (Struwig & Stead 2001).

It is important to note that in addition to the methods used in this research, qualitative researchers also use semiotics, narrative, content, discourse, archival, and phonemic analysis, even statistics (Denzin & Lincoln 1998:5) This study uses primary data collected through surveys in order to evaluate musical arts in the Creative and Performing Arts syllabus for lower primary, i.e. standards 1 through to 4, and the implementation of the syllabus.

The study also uses secondary data or available information (Struwig & Stead 2001) which derives from the syllabus document itself. Content analysis is the method that has been used to evaluate the indigenous musical arts component in the Creative and Performing Arts syllabus.

### **3.2 Methodology**

The methods employed in this study are qualitative and they best solicit information and gather data that should provide answers to the research questions. The smaller quantitative part deals with data that helps to profile those who participated in the interviews, and the graphs from the counts serve to provide a visual presentation of certain variables. But most importantly, the statistics are purely descriptive in a way that strengthens the qualitative aspects of the data. This is an important characteristic of qualitative research. A lot of qualitative research is simply descriptive (Brannen 1992:6). However, if in addition to the qualitative data, the quantitative data were interpreted to show certain relationships between variables in a way that addresses the research questions, then the research could be described as both qualitative and quantitative.

Qualitative and quantitative methods could be combined if the research questions so require (Brannen 1992). Eisner (1991, cited by Newman & Benz 1998) maintains that qualitative and quantitative research can be combined, whilst Leedy and Ormrod (2005:97) state that elements of quantitative and qualitative methods may be combined into what is called mixed-method design. Taylor (2000: 16) explains the purpose of quantitative research as: “to provide phenomena numerically to answer specific questions or hypothesis” and the purpose of qualitative research as: “to provide rich narrative descriptions of phenomena that enhances understanding with words.”

Whilst the foregoing distinctions between quantitative and qualitative enquiries are important in helping one understand

the purposes they serve it is important to further distinguish between the two. According to Worthen et al (1997:520-521) qualitative enquiry, on the one hand, “focuses on the testing of specific hypotheses, uses structured designs and statistical methods of analysis, and encourages standardization, precision, objectivity, and reliability of measurement as well as replicability of findings”. Qualitative enquiry on the other hand, “is typically conducted in natural settings, uses the researcher as the primary ‘instrument’, emphasizes ‘rich description’ of the phenomenon being investigated, employs multiple data-gathering methods, and uses an inductive approach to data analysis”.

It should be noted though, that qualitative enquiry is not easy to define since it employs (Jacob 1987, cited by Lang 1993:1-2) “a variety of alternative approaches”. It is therefore understandable why the tendency amongst different scholars is to list its characteristics instead of attempting to define it (Lang 1993). One of the distinguishing characteristics of qualitative enquiry is that “the investigator is the principal ‘instrument’ for data collection” (Lang 1993:2).

### **3.3 Data collection instruments**

Data was systematically collected from the respondents by means of semi-structured interviews facilitated by the researcher. A semi-structured interview consists of a list of prepared questions. The questions allow for the flexibility by the interviewer to reword the questions and to probe the interviewee further, and to allow follow-up on issues that need further clarification. The interviewer takes notes and records the responses on tape.

### **3.3.1 Interview**

According to Steadman (1979) interview is the basic technique of evaluation. The preferred form of interview for this research is focus group interview. The method has been selected for two main reasons. First, it brings together teachers of Creative and Performing Arts who offer the subject to different classes i.e. standards one, two, three, and four. The group is “a number of interacting individuals having a community of interest” (Stewart & Shamdasani 1990:10). Second, “focus groups produce a very rich body of data expressed in the respondent’s own words and context” (Stewart & Shamdasani 1990: 12). It is not in any way implied that focus group interviews do not have any limitations. What is important to note is that the advantages of focus group interviews outweigh the disadvantages. A group of four teachers to constitute a focus group in each of the 41 schools in the sample were assembled at one point to maximize obtaining relevant data.

The sessions, each lasting about an hour and a half at the most, were interactive with comments and discussions. An interview schedule, which is a list of questions to be asked, was prepared in order to get the discussion underway and to give it direction (see Appendix A). The interview schedule consisted of both closed, open and scale questions. Closed questions require a limited response such as “yes”, “no” or “agree”. Open questions require the interviewee to respond in their own words. The interviewer will prompt and probe the respondent as necessary so as to elicit in-depth answers. Sommer and Sommer (1991) give the following examples of probes: “what do you mean”, “anything else”, repeating all or part of the question, and “could you tell me more of your ideas

on that”. Giltrow (1987:3) maintains that an interview allows for a two-way communication since there can be follow-up questions if a point is unclear. Worthen et al (1997) concur that focus group discussions are interactive. Robson (1993:233) explains that “scale questions” ask for the degree of agreement and disagreement.

Some of the responses in the interview such as gender, age, qualifications and so forth have been quantified to give some statistical counts (see Appendix A).

#### **3.3.1.1 Sample size and sampling procedures**

A survey was conducted through semi-structured interviews. A survey is “a data collection technique in which research participants answer questions through interviews or pencil-and-paper questionnaires” (Struwig & Stead 2001:245). Robson (1993:124) explains that a survey features “the collection of a small amount of data in standardized form...and the selection of samples of individuals from known populations”.

The target population was primary school teachers. The target population refers to all units of the population under consideration. A total of 41 primary schools made up the sample. “A sample is a portion or subset of a larger group called a population” (Fink 1998:79). Tuckman (1994:237) defines a sample as “a representative group selected from the target group or population”. Mason (1996:83) clarifies that “sampling and selection are principles and procedures used to identify, choose, and gain access to relevant units which will be used for data generation by any method”.

There are 329 government–run primary schools in the South and South Central administrative regions, of these 38 schools are located in urban centres, and the remaining 291 are located in either the semi-urban or rural centers. The 38 schools in the urban centers represent 11.55% of the total number of schools in the two regions. To come up with a proportional sample of 11.55% of the urban schools, 5 schools were randomly selected from this category. The remaining 88.45% were divided equally between the semi-urban and rural schools. So there were in all 18 schools randomly selected from semi-urban centres and 18 schools randomly selected from the rural centres. The researcher takes cognizance of the fact that there exists “disparity in terms of physical facilities between urban, rural and remote areas” (Swartland & Youngman 2000:10). It is therefore important to pick a representative sample from semi-urban and from rural schools in order to have a balanced picture of the two categories of schools in terms of the physical facilities they have.

The teachers of lower primary classes in every school, constituted a group from which a teacher for every class at this level was selected for the interview. The interviewees were selected by simple random sampling. Names of teachers from standard 1 were written on a piece of paper and one name picked at random. The same was done for teachers of standards 2, 3 and 4 classes. The choice of lower primary school teachers defines the characteristics of the sample population or “parameters” (Singleton et al 1993). The choice of the respondents defines the population, meaning that, “it establishes boundary conditions that specify who shall be

included in or excluded from the population”. (Tuckman 1994:238).

Random sampling has the advantage that it “limits the probability that you will choose a biased sample (Tuckman 1994:237). Each member of the population is equally likely to turn up in the sample (Keppel & Wickens 2004:9). The sampling procedure also ensures that “the sample is maximally representative of the population” (Alasuutari 1998:49). Alasuutari further explains that, following a study focused on a randomly sampled group, one can safely draw generalizable conclusions about the population.

The proportion of schools in semi-urban and rural centres included in the sample is reasonable. However it makes sense to spread out the sample as much as possible within the semi-urban and rural categories in view of the fact that a number of factors would impact on the quality of teaching and learning in such schools. Some schools would be better resourced while others would be less resourced or simply disadvantaged by their location. So the selected sample took into consideration the possible extremes that may exist.

Given that there are 329 government–run primary schools in the South and South Central administrative regions, the selected sample represents 11.55% of the schools in the two regions. Between the two of them the South and South Central administrative regions represent 45.6% of all primary schools in the country. The remaining 54.4% of other primary schools, which translates into 393 primary schools, are spread over the

other three administrative regions of Central, West and North (see Appendix C).

### **3.3.2 Document analysis**

The Creative and Performing Arts syllabus, as the principal document that is of direct relevance to the topic under research, will have its content analyzed in order to establish the extent to which it covers content on indigenous musical arts. Worthen et al (1997) list, alongside others, content analysis of existing documents and records as a method of collecting qualitative data for evaluation studies. Davies & Hogarth (2002) use the term documentary analysis to refer to content analysis. A checklist is the preferred technique for analyzing the content of the Creative and Performing Arts syllabus for the purpose of this research. Although both quantitative and qualitative content analysis could be used in content analysis (Fibiger 1981), the preferred method for this research is qualitative analysis since it will produce actual understanding from detailed descriptions (Sepstrup 1981).

Leedy and Ormrod (2005:185) define a checklist as “a list of behaviours, characteristics, or other entities that a researcher is investigating”. By means of a checklist, it is possible to check whether a particular item on the list is present or true. In describing an approach to content analysis, Silverman (2001) does not describe a checklist, but instead describes a set of categories which seem to be similar to a checklist, which the researcher establishes and then counts the number of instances that fall into each category. “The crucial requirement is that the categories are sufficiently precise to enable



different coders to arrive at the same result when the same body of material is examined” (Silverman 2001:123).

Leedy and Ormrod (2005:142) explain that “a content analysis is a detailed and systematic examination of the contents of a particular body of material for the purpose of identifying patterns, themes or biases”. It is the gathering and analysis of textual content. The content refers to messages e.g. words, meanings, symbols and themes (Struwig & Stead 2001:14). Other researchers who recognize the significance of categorizing data include Patton (1990), Tsai and Wen (2005), English et al (2005), and Demos & Nicholson (2005).

Krippendorff (1980) characterizes content analysis as a method of enquiry into the symbolic meaning of messages. The connotation in Krippendorff’s definition is that meaning in messages is not always literal or direct. One therefore gets the sense from this definition that meaning could be implied and therefore has to be deciphered from the text and made clear. According to Schwandt (1997:21) content analysis is a “generic name for a variety of means of textual analysis that involve comparing, contrasting and categorizing a corpus of data”.

Worthen et al (1997) uphold the efficacy of content analysis as a procedure employed in reviewing documents. That content analysis is an effective method of evaluating documents is echoed in a definition by Holsti (1968, cited by McCormick and James 1988:235) that “it is a technique for making inferences by systematically and objectively identifying specified characteristics of messages”. The categories described by (Silverman 2001:123) reflect the primary patterns in the data

(Patton 1990:381). Gunter et al (1990:36) refer to the names given to the categories formed as a result of classifying factual data, when analyzing content, as “concepts”.

### **3.3.2.1 Procedure for carrying out content analysis**

The first step towards content analysis is the coding of data. “Coding is a procedure that disaggregates the data, breaks it down into manageable segments and identifies or names those segments” (Schwandt 1997:16). Coding of data for content analysis may be done by means of a computer or manually. Computerized data processing is particularly useful where “there is too much data for a single person to reasonably code” (Patton 1990;383). For content analysis of indigenous musical arts data in the Creative and Performing Arts syllabus the researcher used manual coding.

Patton (1990:382) proposes the following procedure in identifying, coding and categorizing data:

- (i) Labeling the data.
- (ii) Establishing data index.
- (iii) Coding the data into a classification system.

Inductive analysis is then done using the categories developed. By inductive analysis, the researcher “works from data of specific cases to a more general conclusion” (Schwandt 1997:69).

The sources reviewed thus far, do not contain any standard procedure on how content analysis is carried out, but they instead offer what should guide any researcher in doing content analysis in a specific area. It is therefore hardly surprising that some researchers have devised their schema or categories of

analysis guided by what they would like to establish (English et al 2005). It has also been discovered by the author that, in the process of literature search, specific studies on content analysis in arts education are not available.

The researcher has therefore seen it sensible to draw on the methodologies and approaches to content analysis previously done in areas outside arts education. For example in an article by English et al (2005), the authors analyze the content of a religious educational journal spanning 10 years. They identified the main categories of analysis as information on authors, themes pursued in the research, and intended audience. They then labeled the categories in each issue from a period of 10 years. The main feature in the methodology is preparing a frequency table on each of the categories and calculating the percentage for each (English et al 2005:9-15). The percentages show the relationship between the categories in a proportional manner. All the information in the tables forms the basis for analysis.

In another research by Tsai & Wen (2005), the researchers do not use frequencies to arrive at percentages, but instead use scores calculated by a formula proposed by Howard et al (1987) for individual entries under each category. Like in the study by English et al (2005), Tsai & Wen (2005) use percentages of scores as the basis for their analysis.

### **3.3.3 Historical data**

The National Archives, which is a repository of valuable records, have been consulted for sources of historical data. However, after a close examination of available records in the

field of education, no relevant historical or archival data has been found. It has therefore not been necessary to subject records that have been found to be irrelevant to either external or internal criticism.

External criticism is intended to determine the authenticity of the sources and the internal criticism is meant to determine accuracy of sources (Gay 2000). Neither has it been necessary to subject the available records to scrutiny for authenticity, credibility, representativeness and meaning (Scott 1990, cited by McCulloch and Richardson 2000: 91). McDowell (2002: 55) observes that secondary sources lack permanency unlike original source material or primary sources. The reason being that “many historical analyses are subject to revision over time as new evidence, new techniques and new ideas and interpretation emerge”. It is for this reason that he makes an advocacy for primary sources: “it is the primary sources that you must turn to, to extend the boundaries of historical knowledge”.

### **3.4 Data analysis**

#### **3.4.1 Qualitative data analysis**

Qualitative data analysis techniques will be used to analyze data in this study. However, “both qualitative and quantitative research methods may be employed depending upon the types of research under investigation” (Taylor 2000: 163). It is important to point out though, that this research remains qualitative since the quantified data is not directly relevant to answering specific research questions.

On a point of analysis of focus group interview data, Stewart and Shamdasani (1990), while observing that there is no one

best or correct approach to the analysis of focus group data, do acknowledge the fact that focus group data can be quantified and submitted to sophisticated mathematical analysis. Stewart and Shamdassani (1990: 102) however recommend that “a simple descriptive narrative is quite appropriate”, since the most common purpose of focus group interviews is for an indepth exploration of a topic about which little is known. Lastly, the idea that focus group interviews are exploratory ties in with the view held by Morgan (1988, cited by Flick 2002:120) “that focus groups are useful for orienting oneself to a new field”.

### **3.5 Pilot study**

A pilot study is a brief exploratory investigation (Leedy and Ormrod 2005). Robson (1993) is of the view that a pilot study affords the researcher an opportunity to assess the feasibility of what is proposed in terms of time, effort and resources. A pilot study was conducted in three schools within the study area which is made up of the South and South Central administrative regions of the Ministry of Education in Botswana. Each of the three categories, namely urban schools, semi-urban schools and rural schools was represented by one school in the pilot study.

The main purpose of a brief study is to try out the proposed research instrument and methodology. The purpose of a pilot study is best described by Leedy and Ormrod (2005: 110): “a brief pilot study is an excellent way to determine the feasibility of your study.” Through a pilot study, it is possible to determine both the validity and reliability of the research instruments. Leedy and Ormrod (2005) clarify that, validity refers to the extent to which the instrument is able to measure what it is



actually intended to measure, while reliability is the extent to which the instrument yields consistent results when the characteristic being measured has not changed. The pilot study is discussed in detail in Chapter 4 of this thesis.

## CHAPTER FOUR

### THE PILOT STUDY

#### 4.1 Purpose of the pilot study

A pilot study is a brief exploratory investigation (Leedy and Ormrod 2005). Robson (1993:301) refers to a pilot study as a “dummy run” of data gathering. Mouton (2001) identifies as one of the most common errors in questionnaire construction, the inability to pilot or pre-test the instrument. The need to pilot is highlighted by Robson (1993) who is of the view that a pilot study affords the researcher an opportunity to assess the feasibility of what is proposed in terms of time, effort and resources. The main purpose of the brief study is to:

- try out the proposed research instrument,
- test the research methodology, and
- determine both the validity and reliability of the research instruments.

The purpose of a pilot study is also aptly described by Leedy and Ormrod (2005: 110): “a brief pilot study is an excellent way to determine the feasibility of your study”. Kumar (2005:10) uses the term ‘feasibility study’ as an alternative term to ‘pilot study’, and by so doing sheds some light into the purpose of a pilot study. “When a study is carried out to determine its feasibility it is also called a feasibility study or a pilot study”.

#### 4.2 The pilot sample

A pilot study was conducted in three schools within the study area, which is made up of the South and South Central administrative regions of the Ministry of Education in Botswana (see Appendix C). Each of the three categories, namely urban schools, semi-urban schools and rural schools were each

represented by one school in the pilot study. The distribution is a true reflection of the locations where various primary schools in Botswana are found. The proportion of the schools in the three categories is discussed in detail in Chapter 3 of this thesis.

### **4.3 Access into the schools and ethical issues**

In addition to the researcher carrying a copy of the letter of permission to carry out the research (see Appendix E), which is a response to a request made in writing to the Ministry of Education to conduct research in specified administrative regions of the Ministry (see Appendix D), access into the schools that had been selected for the pilot exercise was negotiated with members of the Senior Management Team in the schools concerned. The arrangements made by the researcher to get access into the schools is consistent with the observation made by Robson (1993:295) that “much real world research takes place in settings where you require formal agreement from someone to gain access”. In all the schools, the school management was informed about the interview at least 24hrs in advance. As it turned out though, it was only possible to carry out the interviews 48hrs later.

In none of the three schools were the school heads present at the time that the researcher visited the school. In fact at the first school, the post of the school head was vacant and the deputy head had just been appointed, so the member of staff in charge in the interim was the Senior Teacher Advisor (Learning Difficulties). At the second and third schools, the Heads of Department were briefly holding fort whilst the Heads were temporarily away on official business. Getting access into the



second school was as smooth as had been at the first school, and the interview was duly conducted on the agreed date and time, and the school head was present on that day.

It was at the third and last school that the researcher visited where there was a hitch. The school head felt that in addition to the letter of permission that the researcher brought from the Research Office at the Ministry of Education, clearance had to be given by the Regional Education Office. The researcher duly complied and sought clearance, which was duly given. The interview was ultimately conducted on the appointed date.

At every school the researcher introduced himself to both the school administrators and the interviewees, and explained the purpose of the interview. The interviewees were also assured that their participation was anonymous and at no point would their names be disclosed or mentioned anywhere in the research documents. Protecting the confidentiality of people involved in research forms part of the statement of ethics in research, contends Clay (2001). It was necessary to assure the respondents of confidentiality in view of the fact that “disclosure would put participants at risk” (Pitman & Maxwell 1992:756). In this instance, the only “risk” involved would be that of restricting the open flow of dialogue between the researcher and the interviewees.

The teachers were therefore made to feel at ease and as such they responded freely to the questions put to them. The researcher made a point of ensuring that, as Trochim (2001:240) advises, “the participants’ consent was communicated clearly”. Robson (1993) makes the observation

that one of the questionable practices in social research is to involve people without their knowledge or consent. Such practice goes against the ethics of research. The importance of informed consent is also stressed by Kumar (2005).

Ethics are “rules of conduct; typically to conformity to a code or set of principles” (Robson 1993:29). The Collins Dictionary (1979:502, cited by Kumar 2005:210) gives the meaning of ethical as “in accordance with principles of conduct that are considered correct, especially those of a given profession or group”. The Collins Dictionary definition is congruent with the explanation given by Singleton et al (1993) that ethics is about right behaviour.

Smith (1990, cited by Clay 2001:24) defines ethics as “a complex of ideals showing how individuals should relate to one another in particular situations, to principles of conduct guiding those relationships, and to the kind of reasoning one engages in when thinking about such ideals and principles”. The idea of relationship being paramount in ethics is further elucidated in the distinction drawn by Rowan (2006) between ‘interpersonal ethics’ and ‘social ethics’. Rowan (2006:115) explains that the former refers to “the care with which one treats another equal person”, and the latter refers to “the concern with the results of one’s research and the unintended consequences which may ensue”.

#### **4.4 The recording equipment**

A Coomber 393 audio-tape recorder was used to record the interviews. Although the primary purpose of the equipment was not to test the equipment but the research instrument, it is still

proper to comment on the equipment. The recorder was quite effective, however, it has been observed that the sitting arrangement of the interviewees is of importance in getting optimal performance from the recorder. The researcher had initially, i.e. in the first interview, requested the teachers to sit side by side in front of the recorder. On playing back the recorded interview, it was found out that some voices were not clearly audible because they were a bit far from the recorder. In subsequent interviews, this sitting arrangement was slightly alerted when the teachers were requested to sit in a horseshoe formation with the recorder in front of them. The teachers were asked to speak up and this resulted in clearer voices on the subsequent recording as compared to the initial recording.

#### **4.5 School grouping system and its implications on the methodology**

An interesting revelation occurred during the pilot exercise. This was the grouping of schools according to their enrolment. The learners' enrolment determines the size of the school, which consequently determines its place within a particular group. The enrolment at every primary school in the country is reviewed annually, and an establishment register is issued to reflect the record of enrolment for every school (Botswana 2005). The following observations could be made about the three schools that were selected for participation in the pilot:

- School 1 is in group three, category three. This means that the school has enrolled between 10 and 450 learners, but it is specifically between the 51 – 150 bracket in terms of enrolment.
- School 2 is in group two, category one. This means that the school has enrolled between 451 and 800 learners,

but it is specifically between the 601 – 800 bracket in terms of enrolment.

- School 3 is in group one. This means that the school has enrolled over 800 learners. The schools in this group are not divided into any categories.

The grouping of schools as described in the foregoing paragraph makes it impossible to employ the simple random method of selecting the interviewees as in some schools, for instance in group one, category three school, there is only one class to every standard and as such there is only one teacher to every single class in a given standard. So upon requesting to be furnished with names of all teachers taking all the four lower primary classes, the researcher was given names of three teachers; the standard three teacher being reportedly on maternity leave. As a result, all teachers had to be interviewed. Further details on the grouping of schools and categorization are provided in Table 4.5.1.



POSITION	GRADE	GRO-UP1 800+	GROUP 2		GROUP 3			
			Category 1 (601-800)	Category 2 (451-600)	Category 1 (251-450)	Category 2 (151-250)	Category 3 (51-150)	Category 4 (10-50)
School Head	C1	1	1	1	1	1	1	1
Deputy School Head	C2	1	1	1	1	1	1	1
HOD (Infant)	C2	1	1	1	1	-	-	-
HOD (Middle)	C2	1	1	1	-	-	-	-
HOD (Upper)	C2	1	1	1	-	-	-	-
Snr Teacher Adv (Learning Difficulties)	C3	2	1	1	1	1	-	-
Snr Teacher Adv Grade 1 (Sports & Culture)	C3	1	1	1	-	-	-	-
Snr Teacher Adv Grade 1 (Languages)	C3	1	1	1	-	-	-	-
Snr Teacher Adv Grade 1 (Practical Subjects)	C3	1	1	1	1	-	-	-
Snr Teacher Adv Grade 1 (Guidance & Counselling)	C3	2	1	1	1	1	1	1
Snr Teacher Adv Grade 1 (Maths & Science)	C3	1	1	1	1	1	-	-
SUB TOTAL		13	11	11	7	5	3	3
Snr Teacher Grade 2	C4	15	13	8	7	4	3	1
Teacher Adv Grade 2	B1							
Teacher Grade 1/2	B2							
Ass teacher	B3							
GRAND TOTAL		28	24	19	14	9	6	4

**Table 4.5.1: 2005/06 Teacher establishment register for primary schools**

**Source: Establishment Register For Primary Schools 2005/2006 (p.iii)**

#### **4.6 Instrument validity and reliability**

Validity is generally defined as the trustworthiness of inferences drawn from data (Eisenhart & Howe 1992:644). Leedy and Ormrod (2005) clarify that, validity refers to the extent to which the instrument is able to measure what it is actually intended to measure, while reliability is the extent to which the instrument yields consistent results when the characteristic being measured has not changed. Alasuutari (1998:139) contributes to the understanding of validity by explaining that “validity is defined as the extent to which a method, measure or an indicator is thought to measure what it sets out to measure”. Tuckman (1994:182) captures the gist of the concept of validity by stating that “the validity of a test is the extent to which a test measures what it purports to measure”. A similar explanation is given by Patton (1990) and Schwandt (1997).

Alasuutari (1998) also explains that, by reliability of a research instrument, it is meant that the instrument would give the same breakdown of answer options if it were applied in different cases but to the similar sample of respondents. McCormick and James (1988) and Patton (1990) are in agreement with other researchers in their definition of reliability of a research instruments, that it is concerned with consistency in the production of results. Thus the essence of a reliable instrument is consistency in capturing the necessary data.

#### **4.7 Data capture**

A computerized spreadsheet called Excel was used to create a data base on which the data from the pilot research was captured. As can be seen from the interview schedule (Appendix A) the data captured under section 1 of the schedule has been easy to code since all possible responses under that section are already coded. However, the remaining sections of the schedule, namely sections two through to four have not been as easy to code. A coding list therefore had to be created. The list was based on the responses recorded from the interviews. Each response under the said sections with the exception of questions 2.2, 3.6, 3.7 and 4.0, was included in the coding list, with a view to tallying it. By so doing it would be possible to quantify the responses. As for the responses to questions 2.2, 3.6, 3.7 and 4.0, those were going to be analyzed qualitatively and as such it was not advisable to count them.

#### **4.8 Results of the pilot study**

The result of the pilot study will be discussed in relation to the purpose of the study. The purpose of the study as discussed under the first paragraph to this chapter is to try out the proposed research instrument, and the research methodology, as well as determining both the validity and reliability of the research instruments. The pilot study helped a great deal in refining the research instrument. With reference to the questionnaire, Kanjee (1999:299) appreciates that a pilot study helps in “checking the questionnaire before it is administered”.

As far as the reliability of the research instrument is concerned, the result of the pilot study pointed to the fact that it would be very reliable. The reliability of the instrument was reflected in its consistency as demonstrated by the fact that it elicited responses similar to those that the researcher sought to elicit. This was the case in all the three schools that were covered during the pilot study.

Although the instrument generally captured the data that it was intended to capture, it also generally measured what it had been intended to measure. However it was found necessary to include new questions as well as rephrasing existing questions for improved validity. The following questions under different sections as indicated, were either rephrased or added (see Appendix B):

### **1.0 Personal and career data.**

1.2 (In Appendix A): What are your teaching subjects? To change to:

(In Appendix B): 2.2 *Do you teach Creative and Performing Arts?*

2.2.1 Yes

2.2.2 No

*Teachers at primary schools teach all subjects in the curriculum. Therefore since the focus is on Creative and Performing Arts, the question should directly seek to establish whether or not the subject is taught. It may turn out that, for some reason, the subject is not taught in a particular school.*

### **3.0 Musical Arts data.**



New: To have a question that starts this section of the interview as:

3.1 (In Appendix B): *What do you understand by integration of content in teaching?*

The question was added so as to prepare the respondent for the next one which many respondents took time to answer after trying to formulate the meaning of “integration”.

2.3 (In Appendix A): Initially, the question was:

The indigenous musical arts component in the Creative and Performing Arts is representative of the musical arts in the local community. Do you

2.3.1 Strongly Agree?

2.3.2 Agree?

2.3.3 Disagree?

2.3.4 Strongly Disagree?

The respondents had some difficulty in understanding the term “representative”, so interviewer found it appropriate to rephrase the question to:

3.4 (In Appendix B): *The indigenous musical arts component in the Creative and Performing Arts Syllabus includes the musical arts found in the local community. Do you*

3.4.1 Strongly Agree?

3.4.2 Agree?

3.4.3 Disagree?

#### 3.4.4 Strongly Disagree?

2.5 (In Appendix A): Does the Creative and Performing Arts syllabus allow you the freedom to teach musical arts from your local community?

Invariably, the response to this question was “yes”, implying that there was a possibility for a “no” response.

It was therefore found appropriate to have the following possible responses (See Appendix B):

3.6.1 Yes

3.6.2 No

Consequently, the interviewer found it appropriate to have the following question:

3.7 (In Appendix B): *If your answer to question 3.6 is “No”, what constraints do you face?* The “No” response would need some elaboration.

### **3.0 (In Appendix A): Creative and Performing Arts syllabus implementation data.**

3.6 (In Appendix A): What is being done by the school authorities to overcome the difficulties you face in the implementation of the Creative and Performing Arts syllabus?

It was decided that this question should rather be put to school heads as they are best placed to respond to it from an administrative point of view (see question 1.4 in Appendix B).

An additional question to ask school heads was formulated:

1.2 (In Appendix B): *What guidance has been given by the Ministry of Education to enable the school administration to implement the Creative and Performing Arts syllabus?*

The complete revised interview schedule is presented in Appendix B.

#### **4.9 Conclusion**

There was need to revise the interview schedule with a view to rephrasing some questions and adding some questions mainly to ensure that there would not be even the slightest sense of ambiguity in the questions that were asked. The revision of questions was done in spite of the fact that the questions were on the whole well understood; there were very few cases where the interviewees hesitated as they tried to understand the questions. Any misunderstanding of questions could have had serious implications for both validity and reliability. New questions were added (see Appendix B) after it was established that questions were necessary in one section of the interview schedule to pave way for, or link logically to, questions in the next sections. In the interest of validity, there was need to have Question 3.6 being responded to by school heads since they are best placed to articulate issues of syllabus implementation at school administration level.

When data collection proper finally got underway, it had to be ensured that all the impediments that were identified in the pilot study were avoided or overcome by correcting all the shortcomings that were experienced during the pilot phase of the research. These include, first, making the interviewees assume the right sitting arrangement for purposes of recording and getting them to speak up when they respond to questions. Second, reading out the questions as clearly, and at a reasonable speed as possible in order to avoid having to repeat the questions unnecessarily.

Lastly, the pilot exercise was a worthwhile undertaking that pointed out certain aspects that are crucial to the research and could easily have been taken for granted. The pilot exercise helped not to only shape and refine the research instrument, but also define the focus of the research as a whole.