

3

METHODOLOGY OF THE STUDY

3.1 INTRODUCTION

In this chapter I will italicize all the methodological descriptions that have *already* been explored in chapter 1 of this thesis, in order to provide a link with the discussion of the rationale of these choices and the consequences for the thesis. Following each italicized section then, will be a further section on the rationale and consequence of each choice.

- I will also give an overview of the research design of the study, as well as the methodological decisions.
- Both dependent and independent variables are spelt out.
- The population and the sample are given.
- A further explanation of how the sample was selected is offered.
- The procedure followed in data gathering and the methods used are presented.
- An explanation of how the instrument used was developed, and scored, is offered.
- This is followed by methods of data analysis and ethical considerations in research.

The main focus of this study was on the ways in which parents of children with hearing impairments access guidance and counseling. Stewart (1986:109), Luterman (1990:127) and Locke (1990) strongly support the importance of counseling parents of children with disabilities, from an early age up to the time the parents are able to cope with their children. Early guidance and counseling helps parents to accept, cope and plan for their children. But in order to receive guidance and counseling parents need to access these services – the focus of this study.

3.1.1 RESEARCH DESIGN: SURVEY

This research was conducted by means of surveys and interviews.

PILOT STUDY

PARTICIPANTS (68)	DATA COLLECTION	DATA ANALYSIS
<ul style="list-style-type: none"> • 40 university students • 20 parents • 8 lectures 	<ul style="list-style-type: none"> • Questionnaire responses • Interviews 	<ul style="list-style-type: none"> • Analyzing responses in relation to positive and negative questions • Analyzing content and language of questionnaire • Analyzing the clarity of questions

MAIN STUDY WITH PARENTS

PARTICIPANTS	DATA COLLECTION	DATA ANALYSIS
<ul style="list-style-type: none"> • 300 parents, both single parents and couples 	<ul style="list-style-type: none"> • 2 Questionnaires • 206 Interviews • Parents' own views 	<ul style="list-style-type: none"> • Analyzing questionnaire responses • Analyzing reliability, validity and consistency. • Analyzing participants' views qualitatively

MAIN STUDY WITH COUNSELING SERVICE ORGANIZATIONS

PARTICIPANTS	DATA COLLECTION	DATA ANALYSIS
<ul style="list-style-type: none"> • 28 counseling service organizations 	<ul style="list-style-type: none"> • 1 Questionnaire 	<ul style="list-style-type: none"> • Analyzing participants' responses • Analyzing counselors' qualifications • Analyzing the views of counseling organizations

PRINCIPLES OF RESEARCH DESIGN

RESEARCH DESIGN	<p>Objectives:</p> <ul style="list-style-type: none"> • To find how parents of children with hearing impairments accessed counseling in Zimbabwe • To investigate whether parents who received or did not receive counseling were aware of organizations that offered guidance and counseling • To find parents’ perceptions on whether or not counseling helped them to cope with their children • To establish the counselors’ qualifications • To explore parents’ recommendations on how counseling could be made more accessible
	<p>Paradigm</p> <ul style="list-style-type: none"> • Positivist
	<p>Techniques</p> <ul style="list-style-type: none"> • Descriptive statistics supported by qualitative analysis of interview data. • Sampling, data collection, data analysis • Survey Design

3.2 THE SURVEY METHOD

3.2.1 CHOICE AND RATIONALE

I chose the survey method because I found it to be the most appropriate methodology to explore this theme. The study covered the main cities in the country and involved a reasonably large but manageable sample from all over the country. This enabled me to identify attributes of a population from small groups of individuals as presented in Fowler (1988), Babbie (1990), Sudman and Bradburn (1986) and Fink and Kosecoff (1985). The method helped to make estimated assertions about the nature of the total population from which the sample had been selected. It is also possible to generalize from a sample to a population, drawing inferences about some characteristics, attitudes, or behaviors of this population. In depth interviews were used to cross check questionnaire responses. As cited

by Babbie (1990:243), general to all surveys using participants, the use of a survey enabled me to involve in the sample participants from different places within a reasonably short time. Within a reasonable length of time, I was able to collect data from participants in five major cities in the country.

3.2.2 CONSEQUENCES

This method was extremely efficient at providing large amounts of data, at relatively low cost, in a short period of time. It also allowed anonymity, which encouraged frankness where sensitive issues were involved. Direct administration to a group produced a high rate of response, which was close to 100%. I had an opportunity to explain the study and answer questions that the participants asked before they completed the questionnaire. It is important to point out that this method has some disadvantages.

I was not one hundred percent sure whether participants necessarily reported their actual beliefs and attitudes. Because there is likely to be a social desirability response bias, people responding in a way that shows them in a good light. Surveys also do not guarantee future reliability since their main emphasis is what happened in the past. As pointed out by Hanson (1980:68) a lack of relationship between attitudes and behavior also makes it difficult for the researcher to generalize from what people say to what they actually do.

3.3 INTERVIEWS

3.3.1 CHOICE AND RATIONALE

I chose to conduct interviews in an informal way in order to cross check questionnaire responses. I had worked out a set of questions in advance but was free to modify their order based upon my perception of what seemed most appropriate in the context of the conversation. I could also change the way the questions were worded and give explanations where needed. I had the option to leave out particular questions that seemed inappropriate with a particular interviewee. Additional questions could be included as a follow up to obtain required particular information. It took me 15 days to complete interviews with parents of children with hearing impairments, who had volunteered to take part. Most of the

interviews were conducted at the five special schools and only a few were conducted at units where children with hearing impairments were integrated. Face-to-face interviews offered the possibility of modifying one's line of inquiry by following up on interesting responses and investigating underlying motives in a way that self-administered questionnaires cannot. Interviews require careful preparation such as arrangements to visit, securing the necessary permissions, rescheduling and confirming appointments and working out the time for each interview. During the interview process, 'bracketing' was applied, mainly to suspend prejudices and biases in order to approach all interviews openly. 'Horizontalization' was also applied to ensure that all sources of data were treated as equal. I was aware of how preconceived views on certain issues could easily influence behavior and contaminate the data, for example the tone of voice, facial expression and nodding of head of the interviewer. Therefore this was minimized as much as possible.

3.3.2 CONSEQUENCES

I could pick non-verbal cues that provided additional information and gave messages that helped in understanding the verbal responses, possibly changing or even, in extreme cases, reversing the meaning. I also managed to probe and gain access to the information that may be difficult to reach by using other methods. Interviews provided rich and highly illuminating material. Due to person-to-person interaction in the interview the quality of data is likely to have been enhanced. However, one of the shortcomings of interviews is that they are time-consuming and in consequence the process took some time to complete. On analyzing the data, lack of standardization, if the data are not carefully handled, might inevitably raise concerns about reliability and bias. It might not be fair to compare responses when different subjects are asked different follow up questions. Some of the interview data may also be hard to categorize.

3.4 POPULATION

The population comprised of all families that had children with hearing impairments who were receiving primary or secondary education in special schools and units at the time of the study. I chose to involve all such parents in order for the study to include people of different backgrounds and ethnic groups who face more or less similar problems. Through

the schools' administration records the population was established to be 900 families at the time of the study. However, there was no guarantee that all these families were going to take part in the study since involvement was purely voluntary. It is also important to point out that parents whose children were not attending special schools and units during the time of the study are not included in this population. For those included in the population, Masvingo had 194, Harare 197, Gweru 176, Bulawayo 170 and Mutare 163 parents (n = 900). Five major hospitals from the five cities, 30 churches that claimed to have proper counseling services (six from each city) five special schools from the following towns: Bulawayo, Gweru, Masvingo, Mutare and Harare and three counseling agencies, all from Harare, were also to be included.

3.5 SAMPLE (n = 300)

The sample comprised families of children with hearing impairments in special schools and units. I used the sample size formula available in Babbie (1990:69) and Fowler (1988:124). Simple random sampling was used to obtain the required sample. Parents were grouped according to the provinces they came from, Masvingo, Harare, Gweru, Bulawayo and Mutare. A random number table was used to prepare cards that were used to randomly select the required sample. Cards were numbered and put in a box. Five boxes labeled with the names of the five towns were mounted in different places outside the administration block. Each box had cards with valid and invalid numbers and parents were asked to pick a card from the box labeled with the name of the town in their province. All parents who volunteered to take part in the study and picked valid numbers up to 300 were considered in the sample. Invalid numbers had the value of their first three digits bigger than 300. If both a husband and wife took part in the study, they picked up one card and completed one questionnaire. The sampling procedure was conducted in five towns at special schools for children with hearing impairments, where parents were gathered. These five special schools were in the following cities, Bulawayo, Harare, Masvingo, Mutare and Gweru. The sample also included five hospitals, one from each town. All five were included since parents of children with hearing impairments were referred to them for counseling and further help. The only three registered counseling agencies, all in Harare, took part in the study. Fifteen churches, three from each city, were included in the study. These were also sampled through a simple random sampling procedure. Six cards were

made for churches in each city that claimed to run proper counseling sessions. Three of these were numbered. The three churches whose church members picked numbered cards were selected to take part in the study. This was done in all the five cities that took part in the study. Parents from rural and urban areas were also involved in this study.

3.5.1 CHOICE AND RATIONALE

The simple sampling procedure was used in this study in order to give each parent an equal chance of being included. The objective was to include parents from different ethnic and socio-economic backgrounds, rural, semi-urban and urban areas. As stated by Salkind (2000:87) the simple random sampling is the most common type of probability sampling procedure and allows each member of the population an equal and independent chance of being selected to be part of the sample. Undoubtedly the random procedure is most rigorous, enabling one to generalize the findings of a study to the entire population associated with the study (Babbie, 1990:74). In this particular study I have no intention of generalizing the results because different ‘counselors’ took part in counseling. Their differing skills and qualifications may have had a different impact on clients.

3.5.2 CONSEQUENCES

One result of using a simple stage sampling procedure was that it allowed me direct access to the participants. The procedure used considered that the subjects selected in the sample reflected the true characteristics of the population as a whole, both in physical attributes and socio-economic status (Cohen & Manion, 1989:101). The use of the table of random numbers is a useful innovation, since the basis on which the numbers in the table are generated is totally unbiased. However, one problem associated with this particular sampling method is that a complete list of the biographical details of the entire population is needed and this is not readily available.

3.6 VARIABLES

Independent variables in this research include parents of children with hearing impairments, counselors in Special Schools, Hospitals, Churches and Counseling

Organizations. Dependent variables include the questionnaire data on parents of children with hearing impairments, whether or not they received counseling, and from where, as well as whether they were able to cope with their children after counseling.

The items included and not included in this study are indicated in table 3.6.1.

TABLE 3.6.1 INCLUSIONS AND EXCLUSIONS

INCLUDED IN THIS STUDY	NOT INCLUDED IN THIS STUDY
Counseling theories	Counseling techniques
Counseling in general	Particular type of counseling received by individual parents.
Parents of children with hearing impairments	Children with hearing impairments

3.7 PROCEDURE

Letters were written to heads of special schools asking for permission to conduct research at their schools during open days. All heads of special schools granted permission. Letters to heads of counseling agencies were also written and permission was granted to carry out the study. Permission was also sought from pastors of sampled churches. Information was given to all potential participants explaining the purpose of the study. Those who volunteered to participate in the study granted informed consent.

A structured questionnaire with multiple choice and open-ended questions was administered to 300 families of children with hearing impairments. The participants of this study came from the five major provinces of Zimbabwe. 60 from Harare, 60 from Masvingo, 60 from Mutare, 60 from Gweru and 60 from Bulawayo. Participants were randomly selected as mentioned above (section 3.5). I arranged with heads of special schools to meet parents on open days. Given the time to meet the parents, I explained to the parents the purpose of the study and how they were expected to complete the questionnaires. Parents were given a chance to ask questions on things they did not understand and clarifications were given. I collected the questionnaires as soon as they were completed. Informal interviews were conducted with individuals during the

interval and the lunch break. A different structured questionnaire for service organizations was administered to personnel responsible for counseling at the following general hospitals, Harare, Gweru, Mpilo, Masvingo and Mutare. The same questionnaire was administered to three registered counseling agencies, all in Harare. Members from 15 churches, three from each of the towns, Harare, Gweru, Masvingo, Bulawayo and Mutare also completed the questionnaire.

3.7.1 CHOICE AND RATIONALE

I chose to conduct the study through special schools in order to meet parents at well-known places and at a convenient time as well as to minimize traveling expenses. Letters that were written before gave parents an opportunity to decide whether to participate in the study or not. A meeting with the parents before they completed the questionnaire gave me an opportunity to explain the purpose of the study and also to stress the fact that participation was voluntary. I chose to use questionnaires because it was easy to collect a lot of data from a large sample within a reasonably short time. I could also conduct interviews with parents who volunteered to participate.

3.7.2 CONSEQUENCES

It became easy for me to meet groups of parents in one place and gather data in one day at a particular school in a particular town. It also saved time and money. It was an advantage for me to be able to administer and collect the completed questionnaire on the same day. Interviews took more time than I anticipated. See the map of Zimbabwe in chapter 1, figure 1.14.1, for the location of towns in which the study was conducted.

3.8 INSTRUMENT

I used questionnaires and interviews to gather data. The idea was to gather data in a simple and straightforward way. The questionnaire format made it possible for participants to freely express their opinions and ideas on their experiences in writing. I considered that the anonymity of questionnaires would help elicit more satisfactory information. This claim appears to be corroborated by the assertion of Babbie (1990:198)

when he stated that questionnaires are preferable since they avoid the embarrassment of direct questioning and so enhance the validity of the responses. Structured questionnaires are a universally accepted mode of eliciting information for research purposes. It is therefore probable that the theoretical and practical requirements of the investigation being conducted would be met.

Before setting out to use the research instrument I was aware that the questionnaires would have to be distributed either by hand or by mail. I familiarized myself with the writings of Dawes (1972:152) and Cohen and Manion (1989:108) as to what should constitute a good questionnaire. Writing on what should form the aggregate of an ideal questionnaire, Cohen and Manion declared that it should be simple, clear and workable. This was the basis under which I designed the instrument for this study. The design aimed at minimizing potential errors from participants and coders. Since people's participation in surveys is voluntary, this questionnaire was made in such a way that it would help in engaging their interest, encouraging their co-operation, and eliciting answers as close as possible to the truth.

As pointed out by Fowler (1988:74), questionnaires must be made attractive to the potential respondent, appear simple and not be too time-consuming to complete. The instrument for this study was designed with these criteria in mind. On the proper selection and/ordering of questions, Fishbein (1967:93) maintained that presenting participants with carefully selected ordered questions is the only practical way to elicit the data required to confirm or disconfirm a hypothesis.

The above issues raised by the various authors were taken into consideration in the design of the questionnaires. I designed structured, straightforward questions to obtain the information needed. It was intended that the questionnaires would be easy to understand and complete. The patterns of the questionnaires took the following forms:

- *the fixed alternative format*
- *the multiple choice format*
- *the open-ended or self report format*

3.8.1 CHOICE AND RATIONALE

As stated before, I chose to use questionnaires because they are an easy way of collecting data provided the questions are clear and simple. They allow participants to participate freely. Multiple-choice questions are not time consuming on the part of participants. Open-ended questions allow participants to express their views and even offer suggestions.

3.8.2 CONSEQUENCES

A fairly large amount of data was collected in a short time. I was able to administer the questionnaires personally and collected them soon after completion, which gave me a 100% return. Structured questionnaires do not give participants the freedom to express their views on why they respond positively or negatively. In this sense the data collected may lack depth.

3.9 DESCRIPTION OF THE MEASUREMENT TECHNIQUES

The details of the instrument used were as follows: Two questionnaires were constructed: one for parents of children with hearing impairments and the other for service organizations that offer counseling. A semi-structured interview questionnaire with 15 items was prepared and will be used to cross check parents questionnaire responses. It covers all aspects of the parents' questionnaire. The questionnaire for parents is divided into three parts. Section A has questions on personal information, whether the child was born deaf or not and who counseled the parents. Section B deals with questions that seek to establish:

- *whether or not parents received counseling,*
- *if parents were aware of counseling organizations,*
- *if counseled parents were able to cope with their children.*

Section C has open-ended questions that seek to establish:

- *the difficulties parents faced in raising their child,*

- *the organizations that counseled them,*
- *whether counseling helped them or not,*
- *their views on how counseling could benefit them.*

The questionnaire for parents has six items in section A, 26 items in section B and six items in section C that makes a total of 38 items altogether. The questionnaire for service organizations has two sections. Section A has six items that seek to establish whether organizations have counseled parents of children with hearing impairments and how many, as well as the qualifications of counselors in these organizations. Section B has seven items that seek to find out whether the counseling given to parents of children with hearing impairments helps them cope with their children. The questionnaire has a total of 13 items. The questionnaires used in this study can be found in appendixes D, H, K and L.

This description of the measurement techniques aims to give the reader a clear picture of the structure of the instruments used in the study and what they purport to measure.

3.10 DEVELOPMENT OF THE INSTRUMENT

Despite a thorough survey of all relevant literature, no suitable instrument was found which could be used in this particular study. Some of the key references that were consulted include, Colledge (2002), Nystul (1999), Babbie (1990), Howard (1996; 2000), Satterly (1981), Shepherd (1984), Oppenheim (1966) and Likert (1967). So instruments were made specifically for this study with the help of Babbie (1990:140, 149)'s examples. Some of the items were developed with the use of ideas from Oppenheim (1966:196).

Focusing on the statement of the problem, the instrument for the study was developed from an original pool of 62 items. Section B had 50 items and section C had 12 items. These items were given to staff and students in the Special Education and Counseling Department at the University of Zimbabwe, who were already qualified teachers. The main focus was on:

- *clarity of language*
- *relevance of each question to the information required*

- *equal numbers of positive and negative items*
- *no repetition*
- *items covering counseling from positive to negative extremes.*

In order to have a balanced pool, items in section B were grouped into three different categories as mentioned before:

- *did the parents receive any counseling*
- *who counseled them*
- *what were their perceptions of the counseling they received.*

With the help of experts in counseling at the Special Education Department at the University of Zimbabwe, the wording of certain questions was altered. Changes that were made by students and staff from the Special Education department reduced the items to 40. Section B had 30 items and section C had 10 items. However, before the questions were rewritten, a number of alterations regarding the order, wording, and what the instrument purported to measure were done with the help of professionals in the Special Education and Psychology departments. During this process the number of items dropped to 36. Section B now had 28 items and section C had eight items. Satterly (1981:97) and Shepherd (1984:124)'s response sets were considered. Out of the response sets outlined by Shepherd (1984:124), two of them had relevance to this study. These were the positional set and the category set. With the positional set the respondent repeatedly chooses right hand and left hand responses. This was controlled by randomizing scoring direction. As for category set, the respondent repeatedly chooses one type of response. Balancing positive and negative item responses controls this.

The final process, which was the pilot project, was aimed at the structure of the whole instrument, its relevance to the research questions, repetition of items, terms used in the wording and clarity of items. The pilot project was undertaken with 20 students who were studying for a Bachelor of Education Degree in Counseling, 20 students who were studying for a Bachelor of Education Degree in Special Education (Hearing Impairment) and 40 parents of children with hearing impairments who were not included in the main study, some lived in villages and others in small towns.

I carried out an item analysis to select the best statements for the instrument. As pointed out by Likert (1932:86) ideally the item analysis should take place by correlating each item with some reliable outside criterion of the aspects to be measured, retaining only the items with the highest correlations. However, Likert (1932:90) further asserts that such criteria are almost never available. In my case, the only available measurement was the total pool of items that I had carefully constructed. Purifying the items, so that they became consistent and homogeneous, would enable them to measure the same thing and achieve validity. I simply worked out correlation coefficients for each item with the total score minus the score of the item in question and retained those with the highest correlations. What it means is that for each item in turn, we will have a slightly different set of total scores. Dawes (1972:112) asserts that the subtraction procedure does not often make much difference and therefore many research workers do not bother with it. This serves as an internal-consistency method of item analysis, since no external criterion is available. An example is given where, say, out of 26 items, item 5 is considered for analysis. I have scores of 10 participants on the pool of all items, on item 5, and on the pool of all items minus their score on item 5. See table 3.10.1 adapted from Oppenheim (1996:199).

TABLE 3.10.1 ITEM ANALYSIS

Respondent	Total score	Score on item 5	Total score minus item 5
A	45	5	40
B	42	5	37
C	35	4	31
D	35	4	31
E	20	1	19
F	39	4	35
G	33	3	30
H	40	4	36
I	22	1	21
J	27	2	25

The relationship between item 5 and the total score minus the scores for item 5 was calculated and the relationship was very strong ($r = .96$). It must be pointed out that in this

study not all items obtained such a high relationship. However, the best 26 were selected on the final instrument. All items carry the same weight.

This further reduced the number of items to the 38 that made up the final questionnaire. After making sure that the questions in section B had an equal balance of positive and negative items, they were scattered and numbered 1-26 for the whole questionnaire. Section A had six items, section B had 26 items and section C had six items.

The questionnaire to Service Organizations (Hospitals, Churches, Special Schools for children with hearing impairments, and Counseling Organizations) was developed along the same lines, following the same stages. The final questionnaire had 16 items. Section A that deals with personal information had six items, section B that focused on parents of children with hearing impairments had six items and section C that dealt with counselors' perceptions of parents of children with hearing impairments had four open-ended questions.

3.10.1 CHOICE AND RATIONALE

It was important that I developed suitable questionnaires to use in this study. I chose to develop these instruments so that I could use them to collect comprehensive and reliable data for this study. The process of starting with a large pool of items, eliminating them to a smaller number through the use of university lecturers and students in different relevant departments until the final questionnaires were obtained, gives credit to the instruments. Carefully constructed questionnaires have good internal consistency and high-test re-test reliability. These instruments were tested through the pilot study and found to be reliable.

3.10.2 CONSEQUENCES

I was able to collect the required data using the instruments referred to above. Most of the participants in the study responded to almost all the multiple-choice questions. This may have been the case because the questionnaire did not require a lot of thinking and was not time consuming. Structured questionnaires are easy to analyze. About one quarter of the participants in the study did not answer open-ended questions. These needed thinking and

writing, and took time to complete. As a whole, comprehensive and reliable data were collected using these instruments.

3.11 SCORING OF THE SCALE

As emphasized by Dawes (1972:16), scoring must be consistent. Thus if it is decided that on a positive statement a high score of 5 is for Strongly Agree, then a score of 1 should be for Strongly Disagree. Negative statements must be scored with a 1 for Strongly Agree and a 5 for Strongly Disagree. It is important to take note of such reversals. On the Likert-type scale constructed for this particular study, responses were graded for each statement, and were expressed in terms of the following five categories, SA; A; U; D and SD. (SA) for Strongly Agree, (A) for Agree, (U) for Undecided, (D) for Disagree and (SD) for Strongly Disagree. The statements were either positive or negative. To score the scale, the responses were credited 5; 4; 3; 2 and 1 from the positive to the negative end or vice-versa. A “Strongly Agree” with a positive statement would receive a score of 5 as would “Strongly Disagree” with a negative statement. The sum of the item credits represented the individual’s total score. Scoring keys were made in order to ease the scoring procedure.

3.11.1 CHOICE AND RATIONALE

I chose to score in the above manner in order to try to minimize guesswork. The scoring made it easy to record the data entries for analysis. The use of the positive and negative statements as well as reversals on scoring these statements, helped to indicate unreliable responses.

3.11.2 CONSEQUENCES

The use of the 5-point Likert scale gave the participants a wide choice of options to their responses. Most of the participants’ responses matched the positive and negative questions appropriately. The scoring system helped to indicate inappropriate responses. The chief advantage of the Likert scale is that it is based on the respondent’s perspectives rather than

on the researcher's construction. Coding and categorizing such data is easy and manageable.

3.12 VALIDITY AND RELIABILITY OF INSTRUMENT

I used my practical experiences of working with parents of and with children with hearing impairments for thirteen years as a teacher and counselor. I also reviewed literature from well-known researchers in the field of counseling: Rogers (1942; 1952; 1959), Howe (1989; 1993; 1996), Davis (1993), McLeod (1994; 1996; 1998; 2000), McCleod (1998), Howard (1996; 2000), Colledge (2002) and many others cited in the study.

Oppenheim (1996:23) maintained that reliability of Likert scales tends to be high, partly because of the greater range of answers permitted to participants. He goes on to say that a reliability coefficient of .85 is often achieved. By using the internal-consistency method of item selection, the scale approaches uni-dimensionality in many cases.

As mentioned above the instrument that was to be used on parents was administered to 20 students studying for a Bachelor's Degree in Counseling, 20 students who were studying for a Bachelor's Degree in Special Education (Hearing Impairment) and 20 parents of children with hearing impairments from small towns and villages, who did not take part in the main study. It was interesting to note that 38 of the students and 19 parents who marked a positive item also marked its direct negative one. Only four cases marked undecided on item 26 on the questionnaire.

The instrument that was to be used on Service Organizations was administered to 20 students studying counseling and also to their lecturers in the Education and Psychology Departments. All 20 students and eight lecturers who marked a positive item also marked its direct negative one. This gave the instruments some credibility in reliability and validity. Adams (1966:47) pointed out that the problem with attitude and perception scales is that they deal with verbalized attitude or perceptions rather than actions. The use of such an instrument does not guarantee future validity. The participants may not complete the questionnaires accurately. Attitudes and perceptions are not easy to measure since the responses depend entirely on the individual's complete honesty and the avoidance of the

tendency to give socially acceptable answers (Cohen & Holliday, 1982:253). As a whole however, the instrument was theoretically sound and its content satisfactory. Experienced staff and students in the Special Education Department, lecturing and studying counseling respectively, checked the content. Above all, an instrument devised for a specific purpose is more suitable than any of the published instruments (Satterly, 1981:87). As evidenced in the review of literature, the instrument to be used in this study will represent a first step in exploring and researching in the field of counseling parents of children with disabilities in Zimbabwe.

In this study I will use some of the guidelines on “Criteria for Evaluating the Validity of Quantitative and Qualitative Research” from Stiles (1993). These are as follows:

- *To ensure that the description of research procedure is clear and comprehensive. This includes sample selection and how the data were collected and analyzed.*
- *To conceptualize the study in its historical, social and cultural location.*
- *To systematically consider the alternative explanations or interpretations of data, so that the findings do not appear to be mere confirmation of one’s initial or pre-existing biases.*
- *To give a detailed description of the study in such a way that another researcher would be able to replicate it. The results of the study should have general applicability and relevance to other studies.*

3.12.1 RATIONALE AND CONSEQUENCES

The results of the pilot study indicated consistency in the responses of the participants, which gives credibility to the instruments. The use of the positive and negative items together with the scoring system strengthened the reliability of the instruments. Most participants who marked a negative item also marked its direct positive counterpart. When the instrument that was used on parents was tested for response consistency, only four items out of 26 were not consistent. This is an indication that the instrument is valid and

reliable. The open-ended questionnaire to parents allowed them to express their feelings in terms of what they went through as they raised their children with hearing impairments.

3.13 METHODS OF DATA ANALYSIS

I will present analysis of quantitative data first, followed by qualitative data.

3.13.1 QUANTITATIVE DATA

The quantitative data for this study were analyzed using descriptive statistics. Descriptive statistics provides a method of reducing large data matrices to manageable summaries to permit easy understanding and interpretation. In this study descriptive statistics and the associations among variables summarize single variables. Using descriptive statistics I start with a set of data that is categorized, sorted, recorded and then interpreted. I then attempt to convey the essential characteristics of the data by arranging the data into a more interpretable form, forming frequency distributions and generating graphical displays as well as calculating numerical indexes such as frequencies and percentages. Variables are summarized in a data set, one at a time, and are also examined in how they interrelated (examining correlations). The key factor in descriptive statistics is how to communicate the essential characteristics of the data. One of the most basic ways to describe the data values of a variable is to construct a frequency distribution. A frequency distribution is a systematic arrangement of data values in which the data are rank ordered and the frequency of each unique data value is shown. In this study descriptive statistics is used to establish parents' perceptions of the counseling they received, whether or not they were able to cope with their children after counseling, who counseled them and also the qualifications of the people who counseled them.

3.13.2 RATIONALE AND CONSEQUENCES

I chose to use descriptive statistics due to the nature of the data collected for the study. This method allows for the description of the nature and characteristics of the data collected and how it will be used. Single variables and associations among variables can be

summarized using descriptive statistics. The maximum amount of information is maintained in the simplest summary form.

3.13.3 QUALITATIVE DATA

Qualitative analysis is used to analyze parents and counselors' responses to open-ended questions where they give their views and suggestions. This data will be used to complement the quantitative data and to gain a deeper understanding of the responses of the participants in the study.

3.13.4 RATIONALE AND CONSEQUENCES

I chose to use qualitative analysis on participants' responses to open-ended questions so that the information is brought out in its richest form. The message is contained in the feelings and emotions expressed by the participants as portrayed in their actual statements. Analysis of qualitative data is often complex and time consuming. The process involves categorization, sorting, recording and interpretation. Qualitative data provides an interpretation of people feelings and emotions.

3.13.5 ETHICAL STRATEGIES IN RESEARCH

As stated in chapter 1, informed consent was sought and it was explained to the parents and counseling organizations that participation in the study was voluntary and anyone could withdraw at any time. According to Capuzzi and Gross (1997:94) ethics is the philosophical study of moral value of human conduct and of the rules and principles that ought to govern it, or a code of behavior considered correct especially that of a particular group, profession or individual. It also involves the moral fitness of a decision and course of action taken. McCleod (2000:327) points out the paradox between research and counseling and psychotherapy where the therapy is normally conducted in private between client and counselor. On the other hand research implies making results public. According to Heppner (1992:78) "ethics are expressions of our values and a guide to achieving them". This closely follows the work of Hill, Thompson and Williams (1993:115) on ethics in research where they point out that ethics are central to research. Since

counseling is about privacy between the client and the counselor, whereas research is a public affair, ethics become the guiding principle that ensures the protection of the client as a participant in the research process (Woolfe & Dryden, 1998:57). He suggests that it is in the interest of ethics for the researcher to discuss his/her study limitations, the problems experienced during data collection and how these problems impacted on the quality of conclusions drawn from the results.

In this study parents and counseling organizations were notified verbally and in writing of the purpose of the study and of how the information they contributed was going to be used. They were also assured that they would be informed of the results of the study. Anonymity and confidentiality of individual contributions were upheld. Schools, churches, counseling organizations and hospitals were also informed of confidentiality and anonymity.

Trust is an important cornerstone in the counseling relationship, and central to the development and the maintenance of trust is the principle of confidentiality. The obligation of counselors to maintain confidentiality in their relationships with their clients is not absolute McCleod (2000:3). However, counselors need to be aware of both the ethical and legal guidelines that apply. In distinguishing between “confidentiality” and “privileged communication,” (Miles & Huberman, 1994:10), in a research context, it is important to keep in mind that confidentiality is an ethical concept, whereas privileged communication is a legal concept (Tesch, 1990:85). Confidentiality is defined as an ethical responsibility and a professional duty, which demands that information learned in private interaction with a client not be revealed to others. Professional ethical standards mandate this behavior except when the counselor’s commitment to uphold client confidences must be set aside due to special or compelling circumstances or legal mandate (Arthur & Swanson, 1993:3). For example when a client is a danger to self or others. The law places physical safety above considerations of confidentiality or the right of privacy. Protection of the person takes precedence and includes the duty to warn. In this research anonymity is maintained within these boundaries.

In chapter 4, I will present and provide an analysis of the results of this study.