CHAPTER 5

RESEARCH METHODOLOGY

5.1 INTRODUCTION

As alluded to in Chapter 1, the goal of this research study is to explore and describe the perspectives of social service professionals in South Africa to the emergence of Youth work practice and its future status. The researcher explored the factors that led to emergence of Youth work, analysed its current status, and analysed whether this field of practice should remain as an occupation or recognised as an area of specialisation or an autonomous profession. The analysis was concluded by looking at the benefits of specialisation and/or professionalisation.

In an attempt to achieve the above-stated research goal and in order to provide more insight into the problem, the researcher conducted a mixed-methods research study. That entailed mixing qualitative and quantitative approaches, methods and procedures in sequence with the aim of exploring and describing the research problem (Bergman, 2008:53; Creswell & Plano Clark, 2007:6, 32; Delport & Fouché, 2011:434; Flick, 2008:42; Singh, 2007:63). This was done by obtaining information on the ideas, perceptions, feelings, attitudes, knowledge, and experiences of the research respondents on the research topic.

The researcher identified the following objectives as a means towards attainment of the goal for this study:

- To identify, explore, and analyse the factors that contributed to the emergence of Youth work in South Africa;
- To explore the current scope and nature of Youth work services in South Africa;
- To determine whether Youth work should remain as an occupation, or recognised as an area of specialisation or an autonomous professional field of practice; and
- To analyse the benefits of having Youth work as an area of specialisation and/or an autonomous profession.

In the end, this research study sought to answer the following questions:

- What are the factors that contributed to the emergence of Youth work in South Africa?
- What is the current status of Youth work in South Africa?
- What is the extent of involvement of South Africa's social service professionals in Youth work?
- What are the perspectives of South Africa's social service professionals regarding the future status of Youth work?
- What are the benefits of having Youth work as an area of specialisation and/or an autonomous profession?

Before conducting the study, the researcher developed a research proposal that was approved by the Ethical Committee of the Faculty of Humanities at the University of Pretoria (refer to Ethical Clearance letter attached as *Annexure A*). The proposal included the research methodology to be followed. It was forwarded to the national Department of Social Development to obtain permission to conduct research and approval was granted. The permission letter and the letter of support addressed to the provincial Heads of the Departments of Social Development are attached as *Annexure B*.

Below is a detailed description of research methodology followed in this study.

5.2 RESEARCH APPROACH

Various authors (Bergman, 2008:53; Singh, 2007:63) identified qualitative and quantitative as methods/ approaches/ orientations to research (herein referred to as approaches). Although these approaches differ, they each have strengths and weaknesses. In this study, the researcher used mixed methods research approach that mixes elements of qualitative and quantitative methods within one study (Bergman, 2008:53; Creswell & Plano Clark, 2007:6, 32, 255).

The chosen research approach was appropriate, because it allowed initial qualitative exploration of the research topic on a small scale, in order to gain insight of the research situation; gathering of information for development of a measuring instrument, and consequent comprehensive analysis of the research phenomenon

through two methods that complemented rather than competed with each other (Bergman, 2008:53; Creswell & Plano Clark, 2011:4; Flick, 2008:42).

5.3 TYPE OF RESEARCH

The type of the study can either be basic or applied (Fouché & De Vos, 2005b:105; Neuman, 2006:28). Whereas basic or pure researchers seek to provide an understanding of social reality by developing theory and increasing or expanding the knowledge base, applied researchers apply and tailor the knowledge to address specific practical issues (Fouché & De Vos, 2005b:105; Grinnell, 1993:14).

This is an applied research study that develops or expands the knowledge base to address specific practical issues (Fouché & De Vos, 2005b:105; Grinnell, 1993:14; Neuman, 2006:28). The study would help attain the goal of this research, namely, to explore and describe the perspectives of social service professionals in South Africa towards the emergence of Youth work and its future status. By doing so, this study will be stimulating thought and action in practice (Fouché & De Vos, 2005a:105; Neuman, 2006:28). The knowledge generated from this study is intended to improve the manner in which Youth work is practised in South Africa and possibly across the globe.

5.4 RESEARCH DESIGN

Whereas a research design is a plan or a blue print of how the research is to be conducted, research methodology refers to systematic methodological and accurate execution of that design (Babbie & Mouton, 2010:74; Nieuwenhuis, 2007:70). Welman, Kruger and Mitchell (2005: 52), specified that the research design guides the researcher on how to obtain data about the research phenomenon from the focus group participants or respondents.

In the context of the "*mixed methods research*" approach adopted in this study, the researcher used an exploratory mixed methods research design where qualitative and quantitative phases occurred one after the other in a sequential manner (Delport & Fouché, 2011:439, 441). The mixed methods design was used to explore the research phenomenon using qualitative data before attempting to measure it

quantitatively (Delport & Fouché, 2011:441). In the first phase of the study, qualitative data was collected from the four focus groups, based in each of South Africa's selected four provinces. The focus groups were constituted by recognised and unrecognised social service professionals (i.e., Social workers, Child and youth care workers, Youth workers and Community development workers). Qualitative data collected from the focus group participants helped develop a quantitative data collection tool – a measuring instrument, the findings of which were used to elaborate and/or explain quantitative results (Creswell & Plano Clark, 2011:6).

In the second phase of the study, the researcher explored the topic with a larger sample of research respondents constituted by recognised social service professionals (i.e., Educators, Social workers, and Child and youth care workers). The respondents completed a measuring instrument that was developed in the first phase of the study, to collect quantitative data aimed at exploring and describing the experiences, opinions, attitudes, and perceptions that Educators, Social workers, and Child and youth care workers have regarding the emergence of Youth work and its future status.

Overall, analysis of the above stated design revealed the use of "*exploratory mixed methods sequential research design*". This design allowed exploration of the research topic by identifying qualitative themes, generating theories, and then using that exploration to guide the subsequent quantitative results (Creswell & Plano Clark, 2011:411; Ivankova, Creswell & Plano Clark, 2007:265). The results of the first qualitative method informed the development of a quantitative measuring instrument used to gather quantitative data, which culminated into quantitative results. In line with one of the distinction made by Teddlie and Tashakkori (2009) in Delport and Fouché (2011:441), the notation system adopted for this study is: qual+QUAN oriented. The lower cases in the diagram indicate that the qualitative method was less dominant and capital letters in the diagram indicates that the quantitative method was dominant.

The schematic representation of the notation for this study is illustrated in Figure 5.1 below:

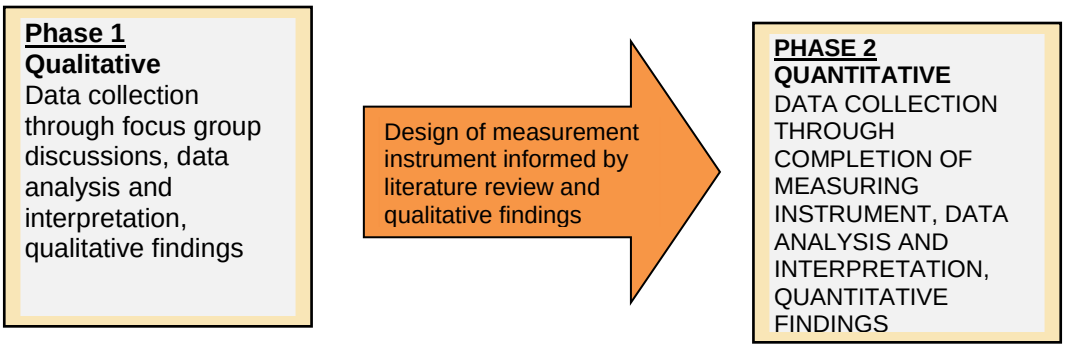

Figure 5.1: Notation for exploratory mixed methods sequential research design

5.5 POPULATION, SAMPLE AND SAMPLING METHODS

The following description spells out the population and sample for this study, as well as the sampling methods used.

5.5.1 Population

A population is described as a group of individuals who possess specific characteristics and from which a sample is drawn to determine the parameters or characteristics (Creswell & Plano Clark, 2007:112; Maree & Pietersen, 2007:172; Singh, 2007:8).

The researcher firstly identified all social service professionals as the population in this study, because in South Africa, Youth work, although not yet recognised as a social service profession, is, however, regarded as a potential social service profession by the SACSSP. It is therefore professionals already recognised by this professional body as well as those who have the potential to be recognised as such, who are regarded as the population for this research study. In this regard, the population for this study consisted of occupational and professional groups, namely: Social workers, Child and youth care workers, Youth workers, and Community development workers (Department of Social Development, 2005:13). Although categorised as a separate group for the purpose of this research, the Educators involved in education and training of social service professionals also formed part of the identified professional groups.

For the first **qualitative phase** of the study, the population consisted of recognised and unrecognised social service professionals (i.e., Social workers, Child and youth

care workers, Youth workers, and Community development workers). The total number of the population could not be determined due to unavailability of contact details for unrecognised social service professionals.

For the second **quantitative phase** of the study, only recognised social service professionals were targeted as the population for the study. The total population consisted of 16 886 social service professionals (i.e., 154 Educators, 9071 Social workers and 7661 Child and youth care workers). The breakdown of the population for the quantitative part of this study is contained in the attached *Annexure D.*

5.5.2 Sample selection

As it would not have been feasible to study the entire population, evidence from various sources supports that a portion of the population known as a sample must be selected to participate in the study (Babbie & Mouton, 2010:164; Brynard & Hanekom, 2006:54; Maree & Pietersen, 2007:172; Strydom, 2011b:223-224). The benefits of using a sample, according to Bergman (2008:70) as well as Mitchell and Jolley (2007:531), is to save costs and time.

In selecting the samples for the qualitative and quantitative parts of the study, the researcher conformed to the mixed methods research procedures by mixing the probability sampling techniques, that are based on randomisation with the non-probability sampling techniques, based on non-randomisation (Maree & Pietersen, 2007:172; Strydom, 2005b:198). These techniques were used to select the samples of focus group participants who participated in discussions for the qualitative part of the study and respondents who participated in completing a measuring instrument for the quantitative part of the study (Neuman, 2003:211, 223).

To be specific, the research samples were selected as follows for these two phases:

(i) **Qualitative sample selection:** For the qualitative part of the study, the researcher purposively selected the following four (4) of South Africa's nine (9) provinces as the research sites: KwaZulu-Natal, Northern Cape, North West, and Gauteng. In making the site selection, the researcher ensured representation of various characteristics differentiating the provinces.

According to information on South Africa's population in the Midyear population estimates report, (a) KwaZulu-Natal is the third smallest of the nine provinces, second most populated province, predominantly rural, with highest contribution to Growth Domestic Product (GDP) and English and IsiZulu are the most spoken languages; (b) Northern Cape is the largest province with smallest population, smallest contribution to GDP and Afrikaans and Setswana are the predominant languages; (c) North West has the third smallest population, is amongst the provinces with the smallest contribution to GDP and Setswana is the mostly spoken language; (d) Gauteng is the smallest province yet it is densely populated with the highest population, more urbanised, highest contributor to GDP and one of the two provinces that is linguistically heterogeneous (Statistics South Africa, 2010a).

Figure 5.2 below shows the nine provinces of South Africa from which the four research sites were selected, i.e., Eastern Cape; Free State; Gauteng; Limpopo; KwaZulu-Natal; Mpumalanga; Northern Cape; North West; Western Cape:

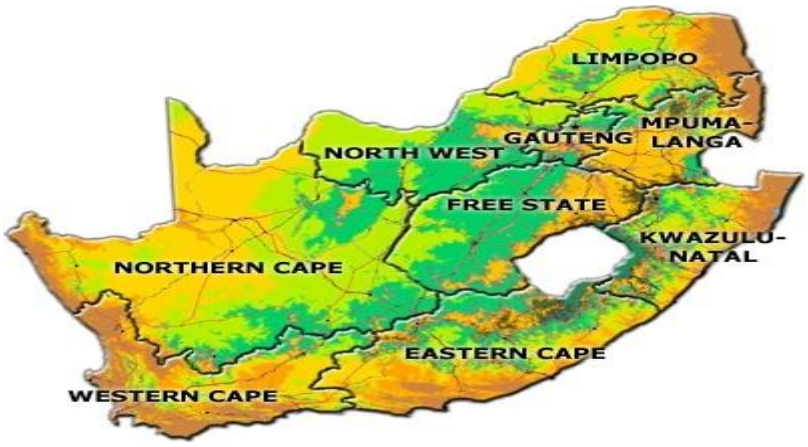

Figure 5.2: South Africa's nine provinces

One of the key features of South Africa's provinces is that, even though there are eleven (11) official languages, the 2001 Census reveals considerable variation in languages between the provinces despite the fact that English is the lingua franca of the country. There are vast differences in language distribution and the numbers of people who speak a particular language at home.

The next Figure 5.3 shows the language/s predominantly spoken in different provinces:

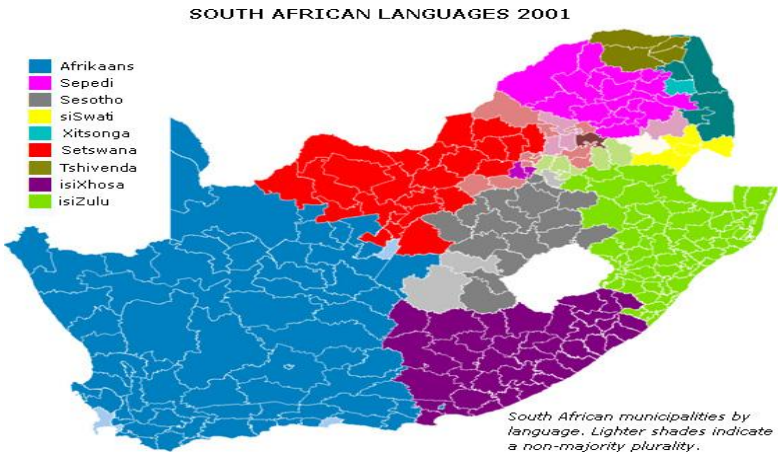

Figure 5.3: South African provinces by language

After selection of the research sites, the researcher selected a sample of focus group participants. They were selected from an unknown number of a population of registered and unregistered social service professionals in the areas of Social work, Child and youth care work, Youth work, and Community development work.

Each focus group was based in one of the four purposively selected research sites. The focus group participants from each site were selected to participate in the qualitative study through purposive and convenience sampling techniques (Babbie, 2010:192-193; Creswell & Plano Clark, 2007:112; Strydom & Delport, 2011:392). With regard to purposive sampling, the researcher intentionally selected the focus group participants from the various social service professional categories, thus ensuring representation. With convenience sampling, the researcher took the availability of selected focus group participants into consideration by requesting their participation during attendance of a meeting convened by the national Department of Social Development.

As already stated that the total number of the population was unknown, emphasis was therefore not put on quantity, but quality. The qualitative sample consisted of an average of 9 focus group members per focus group, i.e., there

were 11 focus group members in Gauteng, 9 in Northern Cape, 8 in KwaZulu-Natal and 7 in the North West province. There was representation from all categories of social service professionals, i.e., 14 Social workers, 10 Child and youth care workers, 7 Community development workers and 4 Youth workers. In total, there were 35 focus group participants in all the 4 groups combined. A detailed illustration of how the qualitative sample was selected is attached to this report as *Annexure C*.

In choosing the focus group members, the researcher employed "maximum variation strategy", a strategy which entails selecting group members with similar, but different training backgrounds from different research sites with the aim of eliciting rich information from the members' diverse experiences and knowledge (Babbie & Mouton, 2010:166; Creswell & Plano Clark, 2007:112). Therefore, the sample reflected focus group participants with different characteristics or qualities, because they belonged to different social service professional categories.

(ii) **Quantitative sample selection:** To select a representative sample of respondents for the dominant quantitative part of the study, the researcher used the stratified random sampling technique, a probability form of sampling to divide the population into various categories/ subgroups/ segments/ strata containing different distinguishing indicators (Babbie & Mouton, 2010:191; Maree & Pietersen, 2007:175).

The quantitative sample was selected from a population of recognised social service professionals, i.e., Social workers, Child and youth care workers, and Educators. The total population consisted of 16 887 registered social service professionals. The unrecognised social service professionals (i.e., Youth workers and Community development workers) did not participate in the quantitative part of this study, because their contact details were unknown and it would have been difficult to trace them.

The researcher used stratified random sampling technique, a probability form of sampling to select a sample (Babbie & Mouton, 2010:199; Maree &

Pietersen, 2007:175; Strydom, 2011b:230). The total population of 16 886 recognised social service professionals was divided into three strata, which consisted of 154 Educators, 9071 Social workers, and 7661 Child and youth care workers.

Each of the above stated main strata was sampled separately as follows:

- ✓ **Educators** – For this stratum, the researcher obtained the list of Educators from the South African Institutions of Higher Learning offering Social work and Child and youth care education and training. The list contained a population of 154 Educators. No sampling was used for this category, because the entire population was targeted to participate in the research. The researcher took that decision given that the population was small and the respondents are experts with demonstrable knowledge and experience on the research subject (Greeff, 2005:287-288; Strydom, 2005b:202).

  Furthermore, the Educators work in Institutions of Higher Learning, which are considered to be working in an environment of national rather than provincial competency. They could thus not be divided according to geographical areas or provinces. The aim was to collect rich and invaluable data from these Educators who were expected to give their opinions on the research subject.

- ✓ **Social workers** – For this stratum, the researcher obtained a list of registered Social workers from the SACSSP. The list contained the population of 9071 Social workers. The researcher used stratified random sampling technique - a probability form of sampling to ensure sufficient proportional representation in the sample; to give each individual an equal and independent chance of being selected to participate in the study; and to make comparison between different areas possible (Babbie & Mouton, 2010:191; Maree & Pietersen, 2007:172, 175; Strydom, 2011b:230).

  The stratified proportional sampling technique was used to further divide the population in this stratum into nine sub-strata, aligned to the nine

provinces of South Africa, i.e., Limpopo, Gauteng, Mpumalanga, North West, Free State, Northern Cape, Eastern Cape, Western Cape, and KwaZulu-Natal (*Constitution of the Republic of South Africa*, 1996:65). The list of Social workers containing the names and addresses of potential respondents was then sorted out according to the geographic areas where they reside, guided by the postal codes. The difficulty with this method which was the only available method to sort the data was that, provincial post codes did not fully correspond with the current provincial boundaries (Lombaard, 2004:1). The researcher used own knowledge and some instance made enquiries from personal contacts in provinces about the location of questionable areas. In cases where the addresses were invalid or incomplete, the names of such professionals were taken off the list. Finally, the list was segmented into nine (9) sub-strata of Social workers.

By dividing the sample according to provinces or geographic areas, the researcher employed an "*area sampling*" technique to make it possible to select a sample proportionally and to compare the results between different areas (Maree & Pietersen, 2007:175; Singh, 2007:104). The names of respondents in each sample were numbered separately to provide unique identification for each of them (Sapsford & Jupp, 2006:31; Mitchell & Jolley, 2007:333). With the help of the Statistician, it is important to note that in an effort to avoid overlaps, the researcher removed the names of the Educators appearing on the Social work and Child and youth care work lists and similarly removed the names of Social workers appearing on the Child and youth care workers' list.

Out of the total population in each of the nine (9) sub strata (provincial list), the researcher selected a proportional sample of twelve percent (12%) using simple random sampling technique, a probability form of sampling that gives each individual research respondent an equal and independent chance of being selected to participate in the study (Maree & Pietersen, 2007:172; Singh, 2007:108). In total, the sample consisted of 1085 Social workers (i.e., a sample of 12% of the total population within each province

was selected). Of the 9071 Social workers, 1085 were randomly selected to participate in the study.

- ✓ **Child and youth care workers** – For this stratum, since individual Child and youth care workers are not yet registered with the SACSSP despite the occupation being recognised as a social service profession, a list of the personnel in this category was obtained from the NACCW. The list contained the population consisting of 7661 Child and youth care workers. Like the Social workers, a stratified random sampling technique, a probability form of sampling was used to select a sample from the population (Babbie & Mouton, 2010:199; Maree & Pietersen, 2007:172, 175; Strydom, 2011b:230). The same procedure of proportionally and randomly selecting respondents was followed, thus resulting in 9 sub strata for Child and youth care workers.

  The names of respondents in each of the sub strata were also numbered separately to provide unique identification (Mitchell & Jolley, 2007:333). A proportional sample of twelve percent (12%) was then constituted. Of 7661 Child and youth care workers, 915 were randomly selected to participate in the study.

For the quantitative part of the study there was low response rate, because out of 2154 measuring instruments administered to research respondents, only 151 were returned (equals to 7% response rate). Since the researcher made provision of selecting additional respondent in anticipation of possible low response rate, convenience sampling method was then used as an alternative sampling method to recruit additional, nearest and available respondents to participate in the study through explaining the purpose and value of the research to them (Babbie, 2010:192; De Vos, 2005:198, 199; Singh, 2007:103, 107). In this regard, the researcher posted or emailed or faxed or physically hand delivered the measuring instrument using personal and/or professional contacts in different research sites (Delport, 2005:168-169). In the end, a total of 593 respondents completed the measuring instrument.

A detailed breakdown of quantitative samples for various strata is illustrated in the attached *Annexure D*.

5.6 QUALITATIVE DATA COLLECTION AND ANALYSIS

The planning for data collection started when the researcher selected the methods to be used for collecting data. As part of the research design, the researcher planned how data would be collected and recorded in order to keep it intact, complete, organised and accessible (Creswell as cited in De Vos, 2005:334; Mitchell & Jolley, 2007:51; Singh, 2007: 82).

The decision of the chosen data collection methods was based on the fact that this study is mixed methods research and mixes both qualitative and quantitative data collection methods (Creswell, 2007:119; Singh, 2007:68). The researcher started off by collecting qualitative data, analysed it, used the findings to design a quantitative data collection measuring instrument for the dominant quantitative part of the study, and then concluded by collecting quantitative data. Creswell and Plano Clark (2007:113) referred to this process as "*sequential data collection*."

After obtaining the ethical clearance to conduct the study, the researcher then obtained consent from the focus group participants regarding their willingness to serve as data sources for this study. A sample of the consent letter given to the focus group participants for the qualitative part of the study is attached hereto as *Annexure E*.

In the next sub-sections, the researcher specifies in detail how qualitative and quantitative data was collected and analysed.

5.6.1 Qualitative data collection

The focus group discussions were used to collect qualitative data. The choice of this method was influenced by the fact that the researcher was studying a new topic which was not widely researched. The focus group discussions were therefore intended to enable the focus group participants an opportunity to describe their experiences, opinions, attitudes, and perceptions on the subject matter, thus providing a deeper understanding of the research phenomenon. This would in turn afford the researcher an opportunity to harness the insight of the focus group participants by exploring their thoughts and feelings and not just behaviour (Flick, 2008:16; Greeff, 2005:300). The focus group participants would further be able to

understand each other's perspectives, disagree openly, and to reach consensus on some of the issues. However, it is important to note that the use of the focus groups in this study was basically to serve as a supplementary source of data for the quantitative method and also to facilitate comparison of data (Greeff, 2011:361).

The researcher began the process by conducting one pilot focus group (Greeff, 2011:370). The group consisted of four (4) group members (i.e., a Social worker, Community development worker, Youth worker, and Child and youth care worker). The information obtained from the pilot focus group discussion assisted the researcher to develop a focus group interview schedule and to cluster the areas to be discussed into manageable themes. The researcher used that interview schedule, attached hereto as *Annexure G*, to facilitate each of the focus group discussion.

There were in total, four focus groups (one group per selected province). Each focus group participant was given a profile form (*Annexure F),* which contained standard demographic questions. The focus group interview schedule consisted mainly of open-ended questions and themes that covered the research agenda (Alasuutari et al., 2008:358; Creswell & Plano Clark, 2011: 414). The researcher was flexible in following the focus group interview schedule, since the discussion at times provided the direction to be taken.

Each focus group discussion was recorded in an audiotape and the researcher also took notes of the most immediate observations (Alasuutari et al., 2008:360; Flick, 2008:77; Greeff, 2011:371). The researcher then transcribed the collected data into a word processing file in order to prepare for the next stage of analysing data (Creswell & Plano Clark, 2007:130; Flick, 2008:10; Sapsford & Jupp, 2006:247). The fact that the audio tapes were self transcribed familiarised the researcher with the discussions and made her to appreciate the complex skills that the audio typists are supposed to have (Flick, 2008:96). The transcription was reduced to verbatim report, i.e., a report written in the exact same words of the focus group participant. The researcher also used own notes as a backup.

It is essential to highlight that the focus groups were used as qualitative data collection tool aimed at collecting qualitative data, which was predominantly verbal.

The ultimate focus was to use qualitative information to inform the design of a measuring instrument and also to elaborate on or explain the quantitative results (Alasuutari, Bickman & Brannen, 2008:358; Creswell & Plano Clark, 2011:6; Ivankova, Creswell & Plano Clark, 2007:15, 261).

5.6.2 Qualitative data analysis

The process of analysing qualitative data began early after conclusion of the focus group discussions. The researcher followed the process described by Babbie and Mouton (2010:493, 494, 495); Creswell and Plano Clark (2007:129); Schurink, Fouché & De Vos (2011:403-404); Singh (2007:82); Welman, Kruger and Mitchell (2005:211) and did the following:

- ***managed or organised data*** – the researcher closely read the collected qualitative data, that was organised and transformed into a transcript form to make it understandable, easily retrievable and managed;
- ***analysed, described, and classified data*** – data was conceptualised, sorted and classified into different categories that were structured in the form of themes and sub-themes containing essential features of the phenomenon being studied. The intention was to find patterns and to produce explanations for the purpose of interpretation. The researcher checked the transcriptions for accuracy;
- ***represented and visualised data*** – data was labelled and represented into identified themes and sub-themes and were interpreted to give it meaning. Data were further presented and placed in the form of themes and statements.
- ***validated and interpreted data*** - the researcher checked the quality of data, analysed their content, used own reasoning to make sense of them, reached conclusions, identified patterns, created a data bank of themes and statements that informed formulation of contextually relevant structured research questions, and included all the information in developing the main quantitative data collection instrument - a measuring instrument (Alasuutari et al., 2008:362, 363; Creswell & Plano Clark, 2007:35; Flick, 2008:16; Schurink, Fouché & De Vos, 2011:417).

5.6.3 Trustworthiness of qualitative data

Trustworthiness refers to the manner in which qualitative data is dependable, consistent, stable, predictable and reliable, thus producing the same results or outcomes in the future as it had in the past (Delport & Roestenburg, 2011:177). The researcher enhanced trustworthiness through the following verification techniques outlined by Babbie and Mouton (2010:277); Creswell and Plano Clark (2011:416); Creswell (in Glesne, 2006:37, 38); Delport and Roestenburg (2011:177):

- **Peer review and debriefing** – this entailed external reflection and input into the study. The pilot focus group conducted before the main study gave the researcher invaluable input into the research process. For example, with the results of the pilot, the researcher revised the sampling procedures and the focus group interview schedule. Of importance, the researcher enlisted the assistance and support of the promoter, statistician and data analyst as peer debriefers in this study. The team received regular feedback and meetings were held to scrutinise data collected and other research issues.
- **Triangulation** – this involved the use of multiple sources. By using focus groups consisting of members from different professional categories based in different provinces, the researcher allowed multiple perspectives on the research topic. The different viewpoints and experiences of focus group participants were verified against each other's views, thus leading to convergence of ideas and comprehensive understanding of the situation. In this context, the researcher relied on multiple rather than single sources of data.
- **Reflexivity** – as a Social worker, the researcher has been trained in group facilitation and interviewing. Moreover, the researcher also has working experience of facilitating groups. As a result of this background, the focus groups were professionally facilitated and any undue influence associated with researcher incompetence was minimised. The researcher also used a number of strategies to minimise biasness. For example, the fact that she acknowledged upfront by specifying her previous involvement and interest in conducting the investigation assisted her to continuously keep her subjective judgement on check and to consciously make judgements on the basis of facts. Other strategies included involving the research team, constantly

referring to literature, using complementary mixed methods research, and using random sampling technique in selection of respondents.

- **Member checking** – The accuracy of the responses received from the focus group members was checked by the researcher on the spot through paraphrasing questions and seeking clarity where possible. The use of a tape recorder made it possible for the researcher to reflect on what the members actually said and to think more deeply about their responses. Reference to field notes also highlighted the observations made by the researcher during the discussions.

It was through the above-stated process and based on evidence collected that the trustworthiness and reliability of qualitative data was established.

5.7 QUANTITATIVE DATA COLLECTION AND ANALYSIS

The following process was followed to collect quantitative data:

5.7.1 Construction of a quantitative data collection tool

As mentioned in 5.6.2 above, a quantitative data collection tool – a measuring instrument was constructed based on the qualitative findings and literature review (Creswell & Plano Clark, 2007:35, 83; Flick, 2008:4, 16). This self designed measuring instrument was constructed to gather quantitative data based on research objectives.

5.7.2 Pilot Study

The researcher conducted a pilot study on a small scale prior to the main study. The intention was to determine the feasibility of conducting the study; suitability of the sampling frame; suitability of the measuring instrument to the actual field conditions; identification of any difficulty or unforeseen problems with the method or instrument; investigation of the accuracy and appropriateness of the instrument; and establishment of the adequacy and appropriateness of the methodology. This was done with a view to effect modifications at little cost before the main investigation (Babbie & Mouton, 2010:244; Delport & Roestenburg, 2011:195; Singh, 2007:72; Strydom, 2011a:237-243; Welman, Kruger & Mitchell; 2005:147).

When conducting the pilot study, the researcher administered the measuring instrument to twelve (12) research respondents, i.e., six (6) Educators, four (4) Social workers, and three (3) Child and youth care workers. The researcher targeted a larger number of Educators, since they are experts and could help delineate the problem more sharply.

A series of consultative meetings were then held with the research team members, i.e., the promoter, statistician, and the data analyst (Bergman, 2008:57; Delport, 2005:166). The aim was to process data collected during the pilot study and to refine the measuring instrument by looking at its layout, structure, relevancy, suitability, appropriateness, validity, and reliability (Alasuutari et al., 2008:358; Delport, 2005:160, 162, 163; Singh, 2007:72; Strydom, 2011a:246). There were eleven (11) draft versions of the measuring instrument prior to the final one.

All focus group participants who took part in the pilot project were not included when the study was conducted on a large scale. Their views and opinions on the measuring instrument were used to modify it, rectify the mistakes, and changes were consolidated into the final measuring instrument (Bless & Higson-Smith, 1995: 43; Mitchell & Jolley, 2007:530). The measuring instrument was approved by the research team and then subsequently administered to the full research sample.

5.7.3 Measurement

The modified measuring instrument was used to collect numerical data for the quantitative part of this study. It consisted of different types of questions, i.e., biographical, closed ended, dichotomous, multiple response, scaled, filter and follow up questions (Babbie & Mouton, 2010:233, 240-242; Brynard & Hanekom, 2006:47; Delport & Roestenburg, 2011:196-201. Maree & Pietersen, 2007:161-167; Mitchell & Jolley, 2007:224, 225). The researcher numbered and coded the boxes adjacent to each response and in instances where the response does not fall within the pre-coded category, an additional code box marked “*other*” was allocated (Fouché & Bratley, 2011:254; Singh, 2007:82). The use of numbered pre-coded boxes made the process of data capturing easier.

On page 1 of the measuring instrument, the researcher explained the purpose of the research, the procedures involved and assurance for confidentiality and anonymity. The explanation was provided in advance, so that the choice made by the respondents is an informed one (Alasuutari, Bickman & Brannen, 2008:99; De Vos, 2005:25). The respondents were guaranteed confidentiality and assured of their privacy as a basic right (Mitchell & Jolley, 2007:36; Strydom, 2005a:61). On page 2, a consent form to be signed when participating in the study was included. The instructions on how to complete the measuring instrument are stipulated on page 3. On page 4 of the measuring instrument, the researcher explained two of the key concepts, i.e., "*Youth work*" and "*Social service professionals*". This was aimed at ensuring common understanding and interpretation. From page 5 to page 9, the measuring instrument was divided into four sections, namely: sections A (pages 5-6) focusing on demographic information requesting the respondents to complete personal particulars related to gender, race, home language, level of education, professional position, sphere and region of employment.

In sections B to D (pages 7-9); there are statements that measure the respondents' perspectives towards the research phenomenon (Babbie & Mouton, 2010:233; Brynard & Hanekom, 2006:47; Delport & Roestenburg, 2011:186; Flick, 2008:4). In this case, the respondents were required to complete the scales measuring various dimensions of the research phenomenon by identifying, describing and explaining their experiences, opinions, attitudes and perceptions they have on the emergence of Youth work and its future status.

The sub-scales measuring various dimensions of the study were developed due to unavailability of existing standardised scales (Delport & Roestenburg, 2011:214). Those sub-scales were used to measure the following:

- **Contributory factors to the emergence of Youth work practice in South Africa:** to measure this dimension, ten (10) items were formulated on a four-point Likert rating scale with the following response categories: 1 (strongly disagree), 2 (disagree), 3 (agree), and 4 (strongly disagree).
- **Current status of Youth work in South Africa:** to measure this dimension, thirteen (13) items were formulated on a dichotomous scale. The measuring instrument contained two choice response categories of "*yes"* or "*no"*.

- **Involvement in Youth work:** to measure this dimension, six (6) items were formulated on a four-point Likert rating scale with the following response categories: 1 (no extent), 2 (less extent), 3 (medium extent), and 4 (high extent).
- **Perceptions on the future status of Youth work:** the items measuring this dimension were divided into four. Firstly, there were items used to measure the respondents' opinions on classification of Youth work. This consisted of five options, from which the respondents were expected to select one. Secondly, the respondents' opinions on the body that is supposed to regulate Youth work practice were obtained. This dimension had five options, but was open to additional responses of which the respondents were requested to specify their appropriate answers. Thirdly, there was an item enquiring about the respondents' views on minimum qualification requirements for practicing Youth work and it required the respondents to select one option from the list of six of those provided. The final fourth dimension was measured through thirteen (13) items on a four-point rating Likert scale with the following response categories, i.e., 1 (*strongly disagree*), 2 (*disagree*), 3 (*agree*), and 4 (*strongly disagree*). This sub scale was used to measure the benefits of recognising Youth work as an area of specialisation and/or a profession.

The combination of the above items resulted in the measuring instrument used to measure the respondents' opinions, experiences and attitudes towards emergence of Youth work and its future status. The final measuring instrument used to collect quantitative data is attached hereto as *Annexure H* and consists of a covering letter, consent form, statements on demographic profile of the respondents as well as statements and questions regarding the research topic. Further details on how the measuring instrument was administered are provided in the next section.

5.7.4 Administration of the measuring instrument

Subsequently, packages containing the covering letter, consent form, definition of key concepts and a measuring instrument were mailed by post or mailed electronically or delivered by hand (Delport & Roestenburg, 2011:186-189). The measuring instrument was distributed to 2154 respondents selected from a total

population of 16 886 recognised social service professionals comprised of 154 Educators, 1085 Social workers, and 915 Child and youth care workers. Of importance is that the Social workers as well as Child and youth care workers who formed part of the focus groups were excluded from participating in the quantitative phase. The respondents who completed the measuring instrument did that with little or no assistance from the researcher, thus making quantitative data collection process less intrusive (Alasuutari et al., 2008:323; Delport, 2005:168).

Initially, 151 measuring instruments were returned. This response was low, because it amounted to 7% response rate. This was anticipated during the sample selection process as already explained in section 5.5.2 above. As a result of that poor response rate, the researcher employed alternative strategy of a convenience sampling technique to recruit additional nearest and available respondents to take part in the study through making follow up, posting, emailing, faxing, physically delivering and using personal and professional contacts in different research sites to deliver the measuring instrument (Babbie, 2010:192; Delport, 2005:168-169; Singh, 2007:103, 107).

In the end, out of a sample of 2154 (13% of the population), the total number of 593 (28%) research respondents completed the measuring instrument. The responses per professional group show that there were 62 Educators (10% response rate), 354 Social workers (60% response rate), 176 Child and youth care workers (30% response rate), and 1 missing value.

Quantitative data collected were electronically captured (in a computer) in order to keep them intact, complete, organised and accessible (Creswell as cited in De Vos, 2005:334; Neuman, 2006:14; Mitchell & Jolley, 2007:51).To ensure accuracy, the researcher cleaned the data by verifying the mismatches between the original and captured data (Babbie & Mouton, 2010:417; Singh, 2007:225). The identified errors and records of mistakes were brought to the attention of the statistician, raw data was captured, and a report was produced and then used for analysis (Sapsford & Jupp, 2006:163).

5.7.5 Quantitative data analysis

Data analysis refers to the way data was captured, analysed, and the statistical procedures used in order to bring meaning to and measure its (De Vos, 2005:333; Neuman, 2006:16). The quantitative data analysis was supported and complemented by the use of Statistical Analysis Software (*SAS*) and *IBM SPSS* Statistics 19 (Singh, 2007:83). In this regard, the researcher was assisted by the statistician and data analyst who were part of the research core team.

The researcher used descriptive methods to describe, analyse, and summarise numerical data into major characteristics of the study without distorting or losing too much of valuable information, so that it is simple, manageable, and more understandable (Babbie& Mouton, 2010:459; Fouché & Bratley, 2011:251). To facilitate eventual processing of data, the researcher analysed quantitative data according to different themes of the measuring instrument (Delport & Roestenburg, 2011:196). Data was presented and displayed in table and graphic form (Fouché & Bratley, 2011:257).

5.7.6 Quantitative data interpretation

This refers to a process when the results of analysis are taken, inference and conclusions on the meaning and implications of the findings are made (Kerlinger as cited in De Vos, 2005:203). The researcher firstly attached meaning to data and established relations between the findings and theory in a manner that supports or disputes the researcher's expectations. The findings obtained from different research samples were also compared to establish between groups differences or to validate the results obtained.

5.7.7 Reliability and validity of quantitative data

Like all other researchers, the researcher also strived to ensure reliability and validity of quantitative data by ascertaining its dependability, consistency, truthfulness or correctness thereof (Brynard & Hanekom, 2006:47; Delport & Roestenburg, 2011:177; Neuman, 2003:178-182). The researcher equates reliability to dependability or consistency whilst validity is equated to truthfulness or correctness.

The following strategies outlined by Delport and Roestenburg (2011:177), as well as Neuman (2003:180-181), were used to improve reliability of quantitative data:

- ***clear conceptualisation of constructs*** – the researcher defined the key constructs to minimise ambiguity and eliminate confusion (Delport, 2005:188), thus increasing the reliability of the measuring instrument.
- ***use of a precise level of measurement*** – in this study, the researcher combined nominal and ordinal levels of measurement. With regard to the latter; summated, numerical, itemised and self-anchored rating scales were used (Delport, 2005:181-183).
- ***use of multiple indicators*** - the researcher used several different indicators to measure the same construct with the intention of improving equivalence reliability. In order to test the reliability of the measuring instrument and ensure "*representative reliability*", in analysing quantitative data, the researcher compared the results across different professional categories and also conducted analysis within a specific professional category. The researcher performed the internal consistency test to determine the reliability and validity of the scales for the target population.
- ***use of pilot test*** – the researcher conducted a pilot test before the main study. There were eleven (11) drafts of a measuring instrument before the final version which was developed through incorporating ideas from the pilot test focus group and the research team. This process was important and necessary, given that the measuring instrument was designed and used for the first time in this study (Welman, Kruger & Mitchell; 2005:147).

Validity refers to the extent to which a test measures what it is supposed to measure in a consistent and accurate manner (Babbie, 2004 as cited in Delport, 2005:160). To check face and content validity of the measurement, the researcher relied on the pilot test and research team, with the latter providing "*jury opinion*" (Monette et al., 2002 as cited in Delport, 2005:161). Furthermore, when analysing data, the researcher determined fit between indicators and also conducted statistical correlation between variables. The internal validity of the scales of different measurements was tested. The interpretation of the results made through reference to the literature review, thus testing the instrument for construct validity (Delport, 2005:162).

5.8 CONCLUDING REMARKS

This chapter documented the research methodology followed in conducting this study. In conducting the investigation, the researcher followed various stages of research as identified by numerous authors in research methodology literature. A mixed method research approach, which entailed mixing qualitative and quantitative methods in one study was adopted to provide a comprehensive understanding of the research phenomenon (Bergman, 2008:53; Flick, 2008:42; Ivankova, Creswell & Plano Clark, 2007:255; Fouché & De Vos, 2005b:133).

Of interest to note is that, there is evidence that illustrates how various qualitative and quantitative aspects of this research were mixed in various stages of the study (Bergman, 2008:90; Creswell & Plano Clark, 2007:6). The reasons for mixing these methods were to: "*use qualitative data to develop new measuring instrument or theory that is subsequently tested and explain or elaborate on quantitative results with subsequent qualitative data*" (Ivankova, Creswell & Plano Clark, 2007:15). However, it is also important to note that, even though the researcher mixed these methods, the quantitative method was more dominant than the qualitative one (Bergman, 2008:57). The quantitative method was therefore considered primary whereas the qualitative one was secondary.

The mixing of these methods, although lengthy, expensive and time consuming, complemented rather than competed with each other, and consequently produced parallel, complementary, rich and comprehensive datasets, which added value to this study (Alasuutari, Bickman & Brannen, 2008:114; Bergman, 2008:27; Creswell & Plano Clark, 2007:10; Flick, 2008:16, 48).

Based on the research methodology followed, the next chapter documents the empirical findings/ results of this study.