

**OCCUPATIONAL ASPIRATIONS AND GENDER STEREOTYPING OF
XHOSA-SPEAKING SENIOR PRIMARY LEARNERS.**

CATHERINE ELS

Submitted in partial fulfilment of the requirements for the degree of
Magister Artium in Clinical Psychology

in the
Faculty of Health Sciences at the
University of Port Elizabeth

January 2004

Supervisor: Prof. M.B. Watson

Co-Supervisor: Prof. C.D. Foxcroft

Co-Supervisor: Dr. M McMahon

ACKNOWLEDGEMENTS

I wish to acknowledge the contributions of several people who were involved with this study:

My supervisor, Professor Mark Watson, and Co-Supervisors, Professor Cheryl Foxcroft and Doctor Mary McMahon, for the invaluable support and guidance they have provided throughout this project.

The principals, teachers and learners at the schools where the research was conducted for their co-operation and assistance.

The students who helped with the data collection and translation.

My colleagues at Parkwood Day Clinic and my friends and for the encouragement and humour they provided over the course of the past year.

DEDICATION

To my husband -

whose unwavering love, encouragement and support
sustained me and made this possible.

I feel gratitude beyond what I can articulate.

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ABSTRACT

International research highlights conflicting results regarding factors that could play a role in the development of occupational aspirations and occupational gender stereotyping of primary school children. Some of the variables that have been identified are age, gender, ethnicity, socioeconomic status and societal influences. There has been some research emphasis on the career development of South Africans. However, studies that have been conducted have focused mainly on adolescents and adults. Furthermore, the majority of this research has focused on programme intervention and not on acquiring baseline information. There has been no research to date on the career development of South African Xhosa-speaking senior primary school children.

The lack of career research on South African Xhosa-speaking children indicates the need for the present research. This study aims to describe and compare the occupational aspirations and occupational gender stereotyping (in terms of Holland's occupational and status level typology) of male and female Xhosa-speaking senior primary school learners. The study also describes the possible gender stereotypical perceptions preadolescent children hold regarding certain occupations. A non-probability sample of 274 Xhosa-speaking children between the ages of 10 and 14 years was drawn from two primary schools in townships in the Nelson Mandela Metropole. An exploratory and descriptive research framework was utilised, with descriptive statistical procedures employed to summarise and report the data in a meaningful manner.

The major findings of the present study indicate that Xhosa-speaking senior primary school children's favourite occupational aspirations fit into Holland's Investigative typology and high status level. Some gender differences were evident, with slightly more boys aspiring to Investigative occupations than girls. Both boys and girls demonstrated gender stereotypical perceptions regarding

which occupations were suitable for both genders, with boys more willing to accept girls into traditional male occupations than girls willing to accept boys into traditional female occupations.

The results of the present study emphasise the need for further exploration of the occupational aspirations and occupational gender stereotyping of Xhosa-speaking senior primary school children. Future research needs to include other cultural and age groups in order to explore how personal and situational variables may differentially influence children's occupational aspirations and occupational gender stereotyping.

Keywords: Xhosa-Speaking, Primary School, Career Development, Occupation,
Aspiration, Gender Stereotyping

CHAPTER 1

INTRODUCTION

Human development is a continuous process that spans from conception to death and occurs according to prescribed developmental stages. Developmental psychologists study the entire life span of human beings in order to describe, explain and predict behaviour within these stages. It is these stages that have been utilised by career development theorists as a basis for their theories. Thus, career development is embedded in the process of human development. Career development is a process and it is therefore necessary to shift the focus from the point where a career choice is finally made, to earlier factors that are involved in the development of the career decision-making process. The process of career development also occurs within a context and it is best understood and interpreted against such a context. The present study is an attempt to explore and describe the occupational aspirations and occupational gender stereotyping of Xhosa-speaking senior primary school learners. The aim of this chapter is to introduce some of the broader contextual issues within which these children's occupational aspirations can be understood.

According to Wahl and Blackhurst (2000), the most consistently researched aspects of the career development of children have been occupational aspirations and occupational gender stereotyping. While research in this area has received a great deal of attention during the last three decades, the majority of this research has focused on North American white children (Watson & McMahon, 2003). As a result, South African career research has been contextualised within the parameters of established western career theories (Watson, 1999). Watson and Stead (2002) have debated the relevance of these theories and the perspectives they offer to South African career research, calling for career research to rather focus on acquiring baseline information. The majority of South African research has so far

focused on the career development of white adolescents and adults, and has not addressed the occupational needs of South Africa's diverse populations (De Bruin & Nel, 1996; Stead & Nqweni, 1999). In fact, De Bruin and Nel (1996) state that research into the occupational aspirations of black South African learners constitutes only five percent of career research in the previous decade, with only one percent of this research actually focussing on preadolescent black children. As a result, Grobler (2000) has called for the acquisition of baseline data with regards to the occupational development of preadolescents of all population groups within the South African context. To date there is no research on the occupational aspiration development of Xhosa-speaking senior primary school learners, and there is an absence of career theories that focus specifically on the career development of Xhosa-speaking South Africans.

The need to explore how career choice develops is apparent from existing research findings in South Africa. An early study conducted by Chuenyane (1990) indicated that a large majority of the black population has experienced serious problems with career planning and they appear to be unaware of their abilities, attitudes, strengths and weaknesses. As a result, a lack of adequate self-knowledge and occupational knowledge lead South African high school students to make unrealistic career choices. More recent research has also established that adolescents aspire to unrealistic occupations (mainly those in Holland's Social typology of occupations) when compared to the requirements of the South African labour market which indicates a significant deficit in the scientific and technological fields (Watson, Foxcroft, & Stead, 1997; Watson & Stead 1993). The results from Grobler (2000) and Dean's (2001) career research of South African pre-primary school children have further concluded that most children aspire to Social occupations and that these aspirations remain stable over time. This raises cause for concern as these occupations are not realistically related to the present employment market.

Pertaining to the environmental context of the present study, it is significant to point out certain socio-political, labour market-related and educational issues, as they serve to further highlight the critical need for research into the career development of Xhosa-speaking South African children. Due to job reservation during the apartheid era, there were few career opportunities available for the non-white population in South Africa and consequently research on the career development of the black population was nonexistent. Furthermore, education was deliberately employed to maintain social and racial segregation. Career guidance in black schools has been characterised by marginalisation, discrimination, under-resourcing and underdevelopment (De Jong, Ganie, Naidoo, & Prinsloo, 1994).

Although South Africa is currently going through a period of socio-political transition, the effects of the apartheid system, which discriminated educationally, socially, and economically against non-white South Africans, may still have an impact on black children's career development (Nicholas, Pretorius, & Naidoo, 1999). Akhurst and Mkhize (1999) further indicate that career education in South Africa still reflects the marked inequalities of the past. Another aspect to be considered is that since the dismantling of the apartheid system previously disadvantaged groups have had to make rapid adjustments in order to prepare to enter occupations that have previously been closed to them (Nicholas et al., 1999). This has serious implications with regards to the career counselling and career development of black South Africans, especially in the light of the great demand for qualified professional and technical staff.

The present study has drawn its participants from the black South African population group and more specifically the Xhosa language group. There are 5 369 672 Xhosa-speaking people living within the borders of the Eastern Cape region of South Africa, with 574 490 residing in the Nelson Mandela Metropole. There are 287 government schools in the Nelson Mandela Metropole and of these 84 cater entirely for Xhosa-speaking children of primary school age. These schools are state funded and, since

basic education is provided for free, they do not charge school fees. The Eastern Cape is the poorest region in the country with unemployment being a major concern; this has increased from 32.8% in 1993 to 48.5% in 2001. Furthermore 74.3 % of the black African population in the Eastern Cape region live in poverty. The index for poverty has been assessed according to infant mortality rate, literacy levels and income bracket. Considering these statistics it is important that career education programmes should prepare children for the world of work that they will be facing as they grow up (Killeen, 1996).

The South African education system is presently in a state of flux and has been continually charged with the failure to foresee and respond to the educational needs of the emerging South African society (Chuenyane, 1990). Historically, career guidance programmes have focused solely on secondary school learners, since these learners were considered ready to enter the labour market. Chuenyane (1990) has urged programme developers and educators to pay more attention to primary school learners, as this is when career guidance is most essential.

In 1997, Curriculum 2005 was launched as part of the transformation of education. Curriculum 2005 (recently renamed as Curriculum 21) follows an outcomes-based approach and clearly defines outcomes that provide learners with skills, knowledge and attitudes not previously assessed. Eight different learning areas have been identified within this curriculum, with career education and personal development being incorporated into the Life Orientation learning area. Although the stated goal of the Life Orientation programme is to make provision for career developmental work, the development of this goal has not necessarily been based on research. At present, specifically in primary schools that educate blacklearners, this goal represents more of an ideal policy rather than a practical reality. It is within this educational context that the present study has taken place and, as a result, the present research is vital for the formulation of suitable career education programmes.

Career development occurs concurrently with human development. For this reason, and to clarify an understanding of human development, Erikson (1950, 1985) and Piaget's (1965, 1977) developmental stage theories will be examined in more detail, focussing on the specific stages of the participants in the current study. The participants of the present study, who fall between the ages of 10 and 14 years, can be placed in a particular phase of development. Thus the children of the present study are in transit from Erikson's Stage 4 of Industry versus Inferiority (spanning the ages of 6 through to 11 years) to Stage 5, Identity versus Role-confusion (spanning the ages of 11 to 18 years of age). This implies that the children in the present study should be in the process of developing a sense of industriousness in order to confront the crisis of finding out where they fit into society and who they are.

Piaget (1965, 1977) has recognised that children employ different reasoning strategies at different stages during their development. As children mature they develop a different understanding of the world and as each stage of cognitive development builds on previously acquired knowledge, their reasoning becomes more advanced. The participants in the present study are in the process of moving from Piaget's concrete operational stage into the formal operational stage of cognitive development. Hence they are currently developing abstract thinking processes.

Career development is also considered a lifelong process that unfolds as human beings develop. Career theorists propose that as children mature they develop an awareness of the world of work. They fantasise about career choices, make tentative career decisions and then decide on a career based on an assessment of themselves as well as the environment. The present study will be conceptualised within the career development theories of Super (1990) and Gottfredson (1981, 1996), as both career theorists agree that occupational aspirations are formed during early childhood and become more realistic as the individual matures. Furthermore, Super and Gottfredson concur that it is vital for children to explore various occupations without being restricted by gender role boundaries. Super's life-span, life-space

theory offers a broader framework within which to understand career development, while Gottfredson's theory of circumscription and compromise offers a more specific structure as to how occupational aspirations develop from early childhood through to the stage where the adolescent is ready to make a career choice. Super and Gottfredson's theories compliment each other in providing a more holistic view of career development.

The participants of the present study find themselves in the growth stage of Super's life-span, life-space theory. Super (1990) suggests that children's exposure to occupational information during this stage should be increased in order to stimulate and cultivate curiosity as this could lead to an improved interest in the future.

Gottfredson (1981, 1996) incorporates gender, intelligence, interests, competencies, social class and values into a self-concept theory of occupational choice. In other words, the gender stereotypes, class and occupational biases that individuals develop will have a direct impact on their occupational choice. Gottfredson's career development theory of circumscription and compromise encompasses both cognitive development and the development of the self-concept. The participants of the present study are in the third stage of development of both the self-concept and occupational aspirations, therefore they have incorporated the ideas of gender and prestige in their decision-making frameworks when regarding occupational aspirations. From the preceding discussion, it is apparent that children's occupational aspirations are formed through a complex process that involves the interplay of societal and personal attitudes, behaviour and the environment.

It is evident that the majority of research regarding occupational aspirations has been conducted internationally. There is a considerable lack of research within the field of occupational aspirations in the South African context. There is thus a definite need to explore the occupational aspirations of

Xhosa-speaking children and to examine how their occupational aspirations are influenced, as well as how their occupational aspirations change over time.

It is anticipated that the present study will provide valuable information about the career development of Xhosa-speaking senior primary school learners in order to assist in developing effective career education and awareness programmes in senior primary schools. This research is important therefore for the formulation of suitable career programmes in South African Xhosa-speaking primary schools.

This introductory chapter has described the background within which the present study has occurred. Chapter Two discusses the theoretical background of child development and career development within which the present research is conceptualised. Chapter Three provides an overview of international and national research on children's occupational aspirations and occupational gender stereotyping as well as the factors that may play a role in influencing occupational aspirations and occupational stereotyping. Chapter Four provides a description of the research design and the methodological considerations included in the study. The results are provided in Chapter Five with the final chapter providing a discussion of the results, presenting the limitations of the present study and the recommendations arising from the results.

CHAPTER 2

THEORY REVIEW

The study of human life in any context is a powerful and gripping drama. Developmental psychologists study human development over the entire life-span, focussing on the stages and life tasks within the specific stages. Similarly, career development is increasingly being viewed as a lifelong process. Both Fouad (2001) and Savickas (2001) suggest that career theorists join with developmental theorists to improve contributions to life-span psychology. One of the important tasks that every human being faces as part of their development is the continuous process of decision making with regards to their occupation. As a result career development is embedded in the process of human development. The two do not occur independently but can rather be considered as interdependent.

To further clarify an understanding of human development Erikson (1950, 1985) and Piaget's (1965, 1977) developmental stage theories will be examined in more detail, focussing on the specific stages of the participants in the current study. Although these theories differ in their explanation of how development occurs, both recognise that there are universal trends that all human beings share as part of the developmental process. Moving from a broader perspective of human development to a more detailed description of career development, Super's life-span, life-space theory will provide an overview within which to relate Gottfredson's more specific theory of circumscription and compromise. Although Super did consider gender, he did not focus specifically on gender issues in terms of individual career development. In her theory of circumscription and compromise, Gottfredson addressed this issue in greater detail (Sharf, 2002). Gottfredson's theory of circumscription and compromise has thus been chosen to further describe career development as it compliments Super's work and offers a more detailed description of children's career development.

This chapter will thus describe general child development theories and then focus specifically on career development theories.

Child development theory

Childhood provides the most apparent evidence that we learn and change over time. The study of the development of children provides us with many answers about how individuals grow and learn, as well as providing us with information on which to base predictions and understandings of the direction that current and future development might take.

In other words, human development can be described as a continuous process that is characterised by cycles of change occurring from birth till death. The changes are progressive and take place in a predictable pattern due to the interaction of biological and environmental factors (Hughes, 2002). Each cycle of change or each stage in development is accompanied by various important tasks that need to be fulfilled. However, all individuals develop in a unique manner, as they are embedded within the context of their environment.

Since the participants of the present study fall between the ages of 10 and 14 years they can be placed into a particular phase of development and it seems appropriate to conceptualise them initially within the broader context of human development. For this reason, two specific developmental theories will be focussed on, namely those of Erikson (1950, 1985) and Piaget (1965, 1977).

Erikson's psychosocial theory

Erikson (1950, 1985) has had an important impact on understanding how the human being develops. He is often considered as the first life span developmental theorist since his theory focuses on the development of the full life span of the human being. Erikson's theory is also valuable for the present study because it will provide an important theoretical basis to which the characteristics of the

children in the present sample can be compared. In this regard Erikson's theory has been validated amongst South African children (Dean, 2001; Grobler, 2000).

Another reason for choosing Erikson's theory as a broader theoretical base for this study is that it considers cultural as well as other environmental circumstances in which individuals find themselves (Hughes, 2002; Salkind, 1985). According to Erikson (1950, 1985), development is the interaction between biological needs and societal demands as well as forces that are encountered by human beings in their lives on a daily basis. Individuals have to resolve the conflict between their biological needs and the pressures placed on them by society. This develops into a crisis that has to be resolved at each stage before individuals can move on to the next stage of development. Consequently, development takes place when individuals successfully resolve the crisis they are faced with at each of the eight stages of development.

The eight psychosocial stages of development identified by Erikson (1950, 1963, 1985) are: Stage 1: Trust versus Mistrust, spanning from birth till the end of the first year; Stage 2: Autonomy versus Doubt which extends from age 1 through to 3 years of age; Stage 3: Initiative versus Guilt which begins at age 3 and is completed at 5 years of age; Stage 4: Industry versus Inferiority which spans from 5 years of age until age 11; Stage 5: Identity versus Role Confusion which starts at 11 years and ends at 18 years of age; Stage 6: Intimacy versus Isolation which begins at around 18 years and extends to about 40 years of age; Stage 7: Generativity versus Self-Absorption which commences at around 40 years and draws to a close at age 60; and lastly Stage 8: Integrity versus Despair which begins at 60 and ends with death.

The participants of this study fall mainly into Stages 4 and 5. The researcher will discuss these two stages, namely "Industry versus Inferiority" (spanning from the age of 6 through to 11 years) and "Identity versus Role-Confusion" (spanning from 11 to 18 years of age) and will not describe the other

stages within the confines of this treatise. In addition, it could be argued that the present participants are in transition from Stage 4 to Stage 5.

In the Industry versus Inferiority stage the child is able to make things and organise them into categories (for example wood work, being chosen for a sports team and collecting stamps). If children are successful they will develop a sense of industriousness and if they are not a sense of inferiority will develop. Thus it is during this stage that children develop a sense of achievement or a sense of failure depending on their success in developing, organising and applying information. It is imperative to children that they present as and feel competent in front of their peers. Once the tasks of this stage are achieved to some degree the next stage of development is embarked on (Erikson, 1950, 1985; Thomas, 1992).

During the Identity versus Role-Confusion stage children or adolescents are confronted with finding out who they are and where they fit into society. Children are expected to begin to define their interests in terms of career choices, further education, trade skills and raising a family. This stage is often experienced as a time of great change and excitement. At the same time, beginning to develop an identity, selecting and defining a role, as well as preparing for the chosen role is also a tumultuous time. Consequently if children do not have a supportive environment during this stage they are unable to establish a role for themselves which, in turn, leads to an ill-defined concept of their own identity and, consequently, to role confusion. It is important to note that children will only be able to achieve a sense of identity if they have successfully proceeded through other developmental stages by resolving the crisis within each of these stages. For that reason children should have attained a sense of trust, autonomy, initiative and industry by the time they have reached 11 years of age (Erikson, 1950; Hughes, 2002; Salkind, 1985; Thomas, 1992).

Evaluation of Erikson's theory

Erikson's theory has emphasised many of the personal predicaments and social challenges that human beings experience. It reflects the real world of children, focuses on normal development in children and, because of its user-friendly appeal, many parents use it as a guide to child rearing (Shaffer, 1999). The theory is based on a wide range of participants from varied geographical environments (Thomas, 1992). It is important to note that Erikson included both sociological and anthropological research techniques in the formation of his theory as he stipulated that it is essential to recognise the significance of the social environment in which the data is obtained. Moreover, Erikson's theory has stimulated hundreds of research studies. An example of this is that Erikson's model has been validated amongst South Africa's black and white population groups (Ochse & Plug, 1986). Consequently, people from all walks of life can easily identify with many aspects of Erikson's theory (Thomas, 1992).

Nevertheless many contemporary developmentalists have rejected Erikson's theory along with other psychoanalytically based theories. Whilst Erikson's theory contributes to a general outline for socialisation and personality development, it is difficult to examine it under controlled conditions (Shaffer, 1999). In addition not enough convincing evidence has been found to support the order in which Erikson proposes that the psychosocial crises occur (Thomas, 1992). Many of Erikson's proposals must therefore be accepted in faith, based on his interpretations and his authority rather than on experimental and observational evidence. In fairness the same can be said for any other theory of development (Thomas, 1992). Louw (1991) criticises the theory for the limited features of development that the theory encompasses and further states that it does not address cognitive development in children. It is for this reason that Piaget's cognitive development theory will be described in the next subsection.

However it is important to note that, despite criticisms of Erikson's theory, the researcher is of the opinion that it is relevant to examine the appropriate stages of Erikson's theory for the present study.

Erikson's theory provides a theoretical and developmental context in which the characteristics of the children in the sample can be compared.

Piaget's cognitive development theory

Piaget (1965, 1977) recognised that children use different reasoning strategies at different stages. He focussed on how human beings develop knowledge and based his theory on cognitive development. Piaget viewed development as the broad arena in which learning takes place. Thus his theory has had a profound impact on our understanding of how a child acquires knowledge. According to Piaget (1977), development occurs in an ordered sequence of qualitatively distinct stages and is characterised by an increase in complexity. In other words, as children mature they develop a different understanding of the world. Hence each stage of cognitive development is more advanced as it builds on previously acquired knowledge. Piaget (1977) believed that knowledge is gathered through a process of actions rather than being a storehouse of information. For this reason he viewed the role of the person in the developmental cycle as active and not reactive, and emphasised individuals' inherent capacity for being dynamic and not remaining static in their environment.

In addition, children perceive objects and situations in diverse ways as if each child were looking through a different piece of coloured glass. Piaget stated that the aim of all behaviour and thought is to adapt to the environment in ever more satisfactory ways (Thomas, 1992). To achieve this, children make sense of their world through assimilation and accommodation. Assimilation is the process whereby children incorporate new information into their existing knowledge, while accommodation is the process whereby children adjust their knowledge to incorporate new information (Thomas, 1992).

Piaget (1965, 1977) identified four main stages of development: the sensorimotor stage which begins at birth and is completed at around two years of age, the preoperational stage which spans from

two years until the age of seven, the concrete operational stage which extends from age 7 to 11 years of age and, lastly, the formal operational stage which starts at around the age of 11 years and is completed in adulthood. For the purpose of this study the focus will be on the concrete operational and the formal operational stages as the participants of this study will be at an age where they are transitioning from one stage to the next. Thus it can be said that they are in the process of moving out of the concrete operational into the formal operational stage of cognitive development. It is therefore possible that their thought processes will fluctuate between concrete and formal operations, and that they will be in the process of developing more abstract thinking processes.

The concrete operational child is able to create hierarchies of different classes and understand the relationships between these classes. In this stage children think in concrete terms. They do not have to see an object to imagine manipulating it but they must have previous experience of the object before they understand it. Therefore they cannot imagine an object that they have not yet seen (Piaget, 1950, 1965, 1977). Consequently, children in this stage of development can understand the differences between plants and animals while understanding that they are both living organisms. An important characteristic during this stage is that children's thinking is rigid and restricted and for this reason children often have difficulties in differentiating between assumption and fact. As a result, children in the concrete operational stage are more likely to alter facts about a situation to suit their understanding rather than altering the assumptions that they have about that situation. They are greatly concerned about the correctness of their assumptions in comparison to the demands of the real world and are regularly overly concerned with rules (Thomas, 1992). Children at this stage of development are aware that others have a differing opinion and perception from theirs but they may still not be aware of the content of the differences. At this stage of cognitive development the child will learn best from action-orientated activities (Salkind, 1985; Thomas 1992).

Stage 4 is the formal operations period that begins at around 11 years and is completed during young adulthood. Piaget (1972, 1977) regards this period as the most mature form of reasoning of which human beings are capable. Formal operations can be described as mental actions that are based on ideas and propositions. Individuals in this stage can reason logically about hypothetical practices and procedures that may not have a basis in reality. Thus the individual is no longer restricted by what can be physically viewed or by what has been previously experienced but can imagine the past, present, and future conditions of a problem, whilst developing a hypothesis about what might occur logically or under different conditions. The ability to think abstractly begins to develop at this stage of development and the individual adopts a more efficient and logical approach to solving problems. This is often where the change is noted with adolescents as they become fascinated by philosophical arguments of how things “ought” to be. According to Piaget (1972, 1977), this is a normal consequence of the adolescent’s newly acquired abstract reasoning abilities.

It can be seen that the stage of cognitive development that children are in will have an impact on how they process information in order to make sense of their world. Children at different ages will process information in relation to careers in different ways and this should be taken into account when developing and implementing career programmes.

Evaluation of Piaget’s theory

According to Case (1985), “Piaget played the same role for intellectual development as Darwin had played for the development of the species (p. 24).” Furthermore, Shaffer (1999) postulates that no other theorist has contributed more to the understanding of children’s thinking than Piaget. Piaget conducted pioneering studies into many facets of intellectual development. His work also stimulated thousands of other investigators to conduct research in this area and thus refine and expand on his ideas (Craig, 1999; Thomas, 1992). Piaget’s theory has been especially useful to educators who make

extensive use of his cognitive developmental stages to determine the sequence of cognitive skills to be learned in each school grade, particularly when considering science and mathematics. Furthermore, Piagetian theory has been utilised as a basis from which to provide children with activities and opportunities to try out the thought processes evident in the developmental stages (Thomas, 1992).

Both Shaffer (1999) and Thomas (1992) have stated that Piaget is correct in his basic description of cognitive development and that the sequence Piaget proposes for the content of intellectual development is correct. Flavell, Miller and Miller (1993), however, have stated that, although the rate of cognitive development amongst children does differ, the sequence in which it occurs is correct, moving from the sensorimotor stage through to the formal operations stage.

There are criticisms of Piaget's theory. Many theorists propose that Piaget has underestimated the cognitive abilities of infants and young children (Craig, 1999; Hughes, 2002). According to Shaffer (1999), Piaget's proposal that young children are not capable of abstract reasoning is not entirely true, as research employing more basic activities has shown. Zimmerman (1995) argues that the majority of Piaget's research activities were non-social in nature and were less likely to be socially dynamic. Sigelman (1999) proposes that cognitive development does not mature coherently over a wide range of specific problems but rather that it may proceed more slowly in one domain and faster in another.

There are other criticisms of Piaget's theory. For instance, Bruner (1997) argues that Piaget was an idealist who explained the intellectual development of children far more logically than it occurs in reality. Rogoff (1990) and Sigelman (1999) both suggest that Piaget did not devote enough attention to social and cultural factors and did not recognise the possibility that children do not function solely on logic, idealism and egocentrism. Children live in varied environments and this can have a direct influence on the rate of their cognitive growth. Thomas (1992) states further that Piaget's research has focussed on the average child and that it does not take the individual differences of children into

account. Piaget (1972) himself has stated that the rate of passage through the stages can vary as much as two years depending on the child and the culture from which the child comes.

Despite the arguments against Piaget's theory, the researcher chose to employ it as a broader theoretical base for the present study as it provides a more comprehensive understanding of children's cognitive development. Furthermore, Piaget has stimulated more research on the cognitive development of children than any other theorist. This has enhanced the understanding that children think differently from adults. Consequently, parents and educators have been able to introduce tasks and ideas to children at a level appropriate for their development.

Both Piaget and Erikson's developmental theories provide a valuable basis within which to conceptualise the participants of the present study. There is a distinct relationship between human development theory and career development theory. For instance, when children resolve the crisis during the "industry versus inferiority" stage they develop skills that will assist them in adapting and responding to future career roles. Furthermore, Piaget (1977) proposed that in order to enhance children's cognitive development they should be offered a variety of opportunities to explore the world. Thus providing children with appropriate and enjoyable opportunities to explore the occupational world at a younger age, will increase their career awareness and assist them in making suitable occupational choices during later stages of development.

Although Piaget (1977) maintains that career decision-making is an adolescent occurrence and that certain cognitive skills are required to make such a decision, it is nevertheless essential to understand how children develop cognitively in order to assist them in making as informed a career decision as possible. Other career theorists such as Super (1980) and Gottfredson (1981), however, are of the opinion that occupational aspirations begin in early childhood. The following sections describe

the career development theory of Super and the occupational aspiration theory of Gottfredson in greater detail.

Career development theory

According to both Erikson (1950) and Piaget (1950), human development is seen as successive clearly defined stages, which span from birth to death. They also believe that occupational aspirations only begin during adolescence rather than developing throughout the individual's lifetime. Career development, on the other hand, is considered as a lifelong process that unfolds as children develop. Career theorists propose that as children mature they develop an awareness of the world of work, they fantasize about occupational choices, make tentative decisions and then finally decide on an occupation based on an assessment of self and the environment.

The present study will be conceptualised within the career development theories of Super (1990) and Gottfredson (1981, 1996). Super's (1990) life-span life-space theory is valuable in that it offers a broader developmental framework within which to understand the career development of children. Gottfredson's (1981) theory of circumscription and compromise, on the other hand, provides a more specific and detailed description of career development in childhood in general, and of the development of occupational aspirations, in particular.

Super's Life-span Life-space theory

The legacy of Super's career development work has spanned more than four decades (Herr, 1997). Super's life-span, life-space theory of careers has been refined, elaborated and renovated over 40 years, evolving with the personal development of Donald Super himself (Super, Savickas, & Super, 1996). The life-span, life-space approach adopts the supposition that individuals live in multiple-role

environments in which work, family, educational and community roles all vary in their demands and importance for different people in different career developmental stages (Super, 1990). Super's (1990) Life Career Rainbow pictorially represents the longitudinal nature of roles that most individuals play across their life-span. How these roles emerge, interact, and conflict, and how these roles shape decision points that occur before and at the time of taking up a new role or giving up an old role, can be referred to as the life-space (Super, et al., 1996). Therefore career behaviour can be seen as encompassing different developmental tasks stimulated by varied contextual demands, which an individual has to deal with in different life stages. Career development and career choice can thus be viewed as a lifetime process of mini and maxi choices through which an individual creates a career rather than a single career choice during adolescence (Herr, 1997). Super's life-span, life-space theory leads to a shift of focus from what is being chosen to a focus on the characteristics of the individual doing the choosing.

Super's (1990) theory acknowledges the importance of career development during childhood, stating that curiosity is the driving force in children which leads to exploration. Super has suggested that exploratory behaviour should be both extrinsically and intrinsically rewarded. Satisfactory exploration leads to identification with key figures and a sense of control over the environment, which in turn leads to the development of a healthy self-concept. In addition, satisfactory exploration leads to the discovery of a sense of time, thus allowing future events to be planned for. The discovery of a sense of time and planning bestows upon individuals a sense of empowerment as they can in some way shape their life's outcome (Blustein, 1997). This is essential because before individuals can arrive at the point where they can make career decisions, they must have developed a sense of time in order to appreciate a perspective of the future. In addition, exploratory behaviour also leads to the development of a self-concept that further enhances a future-orientated time perspective thus leading to career decision-making (Isaacson & Brown, 1997).

Super (1990) has identified five developmental stages, with each developmental stage having specific tasks related to it. The first stage is the growth stage extending from birth to approximately 14 years of age. The growth stage will receive the major attention in the present chapter as it is of greatest relevance for this study. Super's second stage is the exploration stage, which spans from 15 to 24 years of age. This stage encompasses three substages namely, crystallizing, specifying and implementing. The establishment stage occurs between the ages of 25 and approximately 45 years of age when adults establish themselves in their occupation. It consists of three substages namely; stabilising, consolidating and advancing. The maintenance stage generally ranges from the age of about 45 to 64 years, with the three substages of this stage, holding, updating and innovating occurring in any chronological order. The disengagement stage beginning from about 65 years of age is the final stage in Super's life-span, life-space theory. Its three substages of decelerating, retirement planning and retirement living are tasks that many older adults consider. The growth stage will now be discussed in greater detail.

The growth stage is the time during which the child develops rapidly in both physical and psychological spheres. It is also during this stage that the child's self-concept develops through identification with important family and school figures. The growth stage is divided into three substages, namely the fantasy substage, the interest substage and the capacities substage.

The fantasy substage ranges from the ages of 4 to 10 years. During this time children become curious about the world around them. Such a world is often puzzling to them and they try to make sense of it by trying out new behaviours. Children's curiosity about the world leads to fantastical thinking and this is frequently expressed in make believe play. The child's curiosity and fantastical thinking in turn leads to exploration of various activities that may be accidental or intentional. In the interest substage which ranges from around 11 to 12 years of age children focus on their interests and begin to practise them in more realistic terms. During this stage the child's sense of self begins to emerge and

encouraging a child's emerging interests may be helpful in the development of their career maturity (i.e. career readiness). The capacities substage begins at approximately 12 years of age and is completed at around 14 years of age when children become aware of what they are capable of achieving and therefore form a more realistic picture of themselves and their future.

Self-concept is imperative to Super et al's. (1996) career development theory and it begins to emerge during the capacities substage of the growth stage. More importantly as children begin to develop and mature physically and cognitively through interaction with the environment and identification with adults who fill various roles and careers they develop a vocational self-concept. The vocational self-concept develops through experiential learning and is implemented as children incorporate an awareness of the world of work and the differences between themselves and others into their self-concept. The vocational self-concept is thus an element of the individual's self-concept and, through choosing a career, the self-concept is realised.

The reason for utilising Super's life-span, life-space theory in the current study is that it describes the growth stage of career development, in which the participants find themselves. Super (1980) postulates that providing career information during this substage will potentially stimulate and cultivate curiosity and this in turn could lead to an increased interest in the future. It can therefore be seen that by increasing children's exposure to occupational information during this stage their curiosity about occupations could be encouraged. This is of prime importance, as the information that they gather during this phase will allow them to reach the next stage of development with the fully developed self-concept that is necessary in order to choose suitable and viable career opportunities through which they can actualise themselves.

Evaluation of Super's theory

Super's theory has received a considerable amount of support and is regarded as a comprehensive volume of work that has explored many disciplines namely developmental, phenomenological and contextual psychology (Nevill, 1995). Savickas (1997) postulates that the strength of Super's theory is its emphasis on empirical findings and propositions that summarize data. Furthermore, Super's life-span, life-space approach has been used as the primary interpretation of career development in the industrialised world (Herr, 1997). The most important aspect of Super's theory is that its elements have constantly been refined and extended throughout their history, which spans four decades, in order to acknowledge changes in the world of work (Super et al., 1996). In fact, Super's modifications and contributions to his work continued to be published in the last year of his life as well as posthumously.

The most important aspect of Super's work has been its evolutionary nature and its adaptability as a theory (Savickas, 1997). Super has been hailed for his commitment to revising his thinking in accordance with changes that were suggested by empirical data and the broader shifts occurring within the social context. Therefore commitment to revising his theory and his scientific contributions has led to an expanding career development theory and discourse (Blustein, 1997). Super's theory has thus stimulated vast amounts of scientific research into career behaviour (Savickas, 1997; Swartz, 2000).

Nevill (1995) praises Super for the practical elements of his work, postulating that his theory has been made accessible to the average individual as Super not only left us with the legacy of the Archway Model (Super, 1990) but also with assessment tools which can be used in effective career counselling. According to Langley (1999), the strength of Super's theory is that it is adaptable enough to include cultural variables. Thus it has been chosen as a theoretical base for many South African career-related studies with various population groups (Alexander, 1990; Benjamin, 1995; Horn, 1995; Kotze, 1993;

Stead, 1996; Watson, 1984; Watson & Stead, 1993). The majority of these studies undertaken in South Africa have thus far focussed on the career development of adolescents and there has been very little research on the career development of children and even less on the career development of Xhosa children (Grobler, 2000).

Although there has been widespread support for Super's theory it has also been criticised. Super (1990) himself criticised the theory for its fragmented nature. His vision to integrate the three major segments of his theory never materialised as he died before this could be realised. Savickas (1997) agrees that this was perhaps the theory's greatest weakness along with its associated complexity and lack of parsimony. Herr (1997) suggests that because the theory is comprehensive in defining career behaviour, and utilises career assessment instruments within which to conceptualise career counselling approaches, there remains the possibility of further refinement. Blustein (1997) calls for further expansion of the theory to include a wider spectrum of life roles that career counsellors and research are presently identifying.

Blustein (1997) has noted that Super's theory did not appreciate the full impact of contextual factors in relation to exploration, as it was important to consider how poverty and lack of resources can hamper nearly every facet of an individual's exploratory experiences. Phillips (1994) states that the life-span, life-space model bears little resemblance to the realities of human decision making and that Super's work should be viewed as an invitation to look more broadly at how individuals make decisions.

Super's theory has also been criticised for not applying equally to all population groups and therefore not being sufficiently comprehensive (Brown & Brooks, 1996). Furthermore, Herr (1997) has called for refinements of Super's theory in terms of incorporating the impact of economic changes and cultural and gender differences in career behaviour. Herr suggests that greater emphasis should be placed on gender issues as women have been increasingly incorporated into the labour market. The

emphasis on gender roles and prestige is not present in the majority of career development theories and although Super did consider gender, he did not focus specifically on gender issues in terms of individual career development. In her theory of circumscription and compromise, Gottfredson addressed this issue in greater detail (Sharf, 2002). Gottfredson's theory of circumscription and compromise has been chosen to further describe career development as it complements Super's work and offers a more detailed description of children's career development.

Gottfredson's theory of circumscription and compromise

Gottfredson's theory (1981, 1996) concentrates on how occupational aspirations develop from a young age and recommends that a life-stage theory of career development should focus on gender roles and prestige, as these play an important role in the career choices that children make. Furthermore, Gottfredson incorporates gender, intelligence, interests, competencies, social class and values into a self-concept theory of occupational choice. This is the rationale for selecting Gottfredson's theory within which to more specifically conceptualise the current research study.

Gottfredson's (1981, 1996) basic premise is that career theory would be more beneficial if its base was extended into childhood. Although there is general consensus amongst career theorists that adolescents implement self-knowledge when choosing their career and that an individual's career satisfaction is determined by the degree to which the occupation and the self are compatible, such theorists do not give sufficient cognisance to the development of self-knowledge in young children. Gottfredson (1981, 1996) postulates that career development starts in childhood and that occupational aspirations are the individuals' attempts to realise their self-concept (Isaacson & Brown, 1997). According to Gottfredson (1981), an individual's self-concept is the view that individuals have of themselves. This includes who individuals think they are or are not and who they would like to be.

Included in individuals' self-concept is their understanding of gender, social class, intelligence, values, occupational interests and competencies. Thus, the gender stereotypes and class and occupational biases that individuals develop will have a direct impact on their occupational choice. Accordingly, individuals will choose the occupation that best suits the perception that they have of themselves.

Individuals consider whether or not occupations are suitable for themselves based on their self-concept. In other words, occupations that are compatible with the individual's self-concept will be valued more than those that are not. Gottfredson (1981, 1996) states that there might be a discrepancy between an individual's preference for an occupation and the reality that the individual is faced with, since preferences are considered as the wish element of occupational aspirations. For this reason an occupation may be compatible with an individual's self-concept but may not be accessible to that individual due to various social or environmental factors. Alternative occupations are then considered according to both accessibility and compatibility. The alternative occupations are considered as realistic occupational aspirations and the inaccessible occupations are termed idealistic occupational aspirations. Gottfredson (1981) defines an occupational aspiration as the single occupation that is considered by an individual as the most suitable alternative at any given time.

Two important facets addressed by Gottfredson's (1996) theory are *circumscription* and *compromise*. *Circumscription* relates to the idea that an assortment of factors limits career choice at different ages, meaning that children will change their mind about the occupation that they aspire to as they develop a more mature and realistic self-concept. Thus they will eliminate the occupations that are not suitable as they mature and replace these with more acceptable alternatives. In other words, it can be viewed as a narrowing of the territory of work. Gottfredson (1996) predicts that gender will influence occupational aspirations from the age of six years onwards and that social background will influence

aspirations from nine years onwards. Therefore both gender and social background can be seen as limiting factors in the development of occupational aspirations.

Compromise relates to the need for individuals to adapt their career choices because of the reality of restrictive environmental factors such as academic performance and financial barriers. This often leads to individuals considering and accepting less attractive career alternatives, perhaps even alternatives they had previously ruled out. Gottfredson (1996) postulates that a decision taken at an earlier stage will be less likely to change and that individuals will be less likely to compromise on issues related to that stage as they become more deeply entrenched into the self-concept. From this it is understood that individuals first give up interests, then prestige, then gender type when making career decisions, showing why it is difficult to encourage girls and women to consider non-traditional careers. Very few career theorists have focussed on the compromises that individuals make when choosing an occupation.

Gottfredson (1981, 1996) has stated that career development encompasses both cognitive development and the development of the self-concept. Gottfredson identified four main stages in the development of the self-concept and of occupational aspirations. As the present participants find themselves in the third stage of development, extending from birth to approximately 9 to 14 years of age, the third stage will receive the major attention as it is of greater relevance for this study. The first stage of orientation to size and power occurs from the ages of 3 to 5 years. Children in this stage grasp the idea of becoming an adult by orientating themselves to the difference between the size of adults and themselves (Sharf, 2002). Furthermore, they also become aware of the fact that adults have occupational roles and they recognise observable differences between males and females. During the second stage, namely orientation to sex roles between the ages of 6 and 8 years, children develop an orientation to gender roles and become more aware of the diverse gender roles that males and females fulfil. It is in

this stage that the idea that women hold different occupational roles to men begins to emerge. Children's occupational aspirations are influenced by their perceptions of these roles and they begin to categorise occupations according to gender (Gottfredson, 1996).

The participants of the present study fall into the orientation to social valuation stage, which is the third stage of development. Social class and prestige now have a greater influence on children, as they are extremely sensitive to evaluation by their peers. The issue is no longer just male and female but also higher and lower status, as children begin to recognise the social symbols of prestige and class (Gottfredson, 1996). As a result, children tend to become more aware of social class and prestige during this stage of development and these conceptions are important in terms of their occupational aspirations. Children also become aware of what occupations their family and peers would reject as unsuitable and as too low in social standing. Thus they begin to sense that there is a ceiling and a floor to curb or enhance the level of their occupational success (Gottfredson, 1996). Occupations that are considered as too difficult, or as having low prestige attached to them, are often eliminated and this is incorporated into their self-concept. In other words, children develop a tolerable-level boundary below and a tolerable-effort boundary beyond which they will not venture (Gottfredson, 1996). Therefore it is surmised that their orientation to gender roles has already been established in the second stage, and that they are becoming aware of the prestige attached to various occupations.

Finally, the fourth stage occurring after 14 years of age is the orientation to the internal, unique self. In this stage adolescents eliminate the occupational choices that are not compatible with their interests, values and competencies and confine their exploration to acceptable alternatives (Gottfredson, 1996). The first three stages are thus devoted to rejecting unacceptable occupational alternatives, whilst this final stage is devoted to identifying which alternatives are most preferred and most accessible.

For the purpose of this study it is assumed that children in the third stage of development have incorporated both the idea of gender and prestige into their decision-making frameworks when making occupational aspirations and choices in accordance with Gottfredson's (1981, 1996) career development theory.

Evaluation of Gottfredson's theory

Gottfredson's (1981, 1996) theory has received both support and criticism. Gottfredson (1996) has continued to refine her theory in keeping with environmental and sociological changes and she has been complimented for a well-developed theory (Brown & Brooks, 1996). Gender stereotyping and its influence on occupational choice among children has been recognised as pervasive and the supposition that gender-role stereotyping occurs between the ages of 6 and 8 years has found a great deal of empirical support (Sellers, Satcher, & Comas, 1999). Trice, Hughes, Odom, Woods and McClellan (1995) have reported that girls were less likely than boys to choose careers based on financial rewards, prestige or danger. Stuart (1996) has established that sixth grade females were more likely to express cross-gender career preferences than their male counterparts who restricted their occupational aspirations to occupations dominated by men. Sellers et al. (1999) established that children tend to select occupations which are gender stereotyped and further proposed that these occupational choices were based on both environmental and sociological influences such as information received from the school counsellor.

There has also been criticism of Gottfredson's theory. Brown and Brooks (1996) state that Gottfredson's propositions relating to the various factors that lead to circumscription and compromise are too general and that Gottfredson (1996) does not describe what actually happens during the process of career choice and selection. Gottfredson's theory does not adequately explain the process by which people broaden their horizons, avoid stereotyping and select occupations that are not sex-typed. Sharf

(2002) further argues that Gottfredson's (1981, 1996) notion of compromise has not been sufficiently supported by empirical evidence. Sellers et al. (1999) dispute the proposition that status plays an important role in the occupational choices of children in the sixth grade as their study found that occupational choices in the sixth grade were based on gender roles.

Partial support for Gottfredson's (1996) theory was found by Blanchard (2001) who states that individuals who engage in a low degree of career compromise place greater emphasis on interests, followed by prestige and then gender. Individuals who engage in a high degree of career compromise considered gender to be most important followed by prestige and then interests. Asian American college students were more likely to compromise gender-type for prestige than prestige for gender-type (Leung, 1993). Gottfredson (1996) is of the opinion that the reason for the inconsistency in support of the compromise aspect of her theory could be explained by whether the compromises considered were major or minor, real or artificial. Brown and Brooks (1996) state that Gottfredson (1996) provides adequate descriptions of the interrelations among the constructs and outcomes that she forecasts and further suggest that she focus on factors that influence self-concept which in turn have an influence on occupational choice.

Dean (1998, 2001) and Grobler (2000) have both established support for Gottfredson's observations that children are aware of gender differences and that the reasons for rejecting occupations were related to gender. They explored Gottfredson's theoretical propositions within a South African context and found them to be supported. In addition, the fact that Gottfredson considers social class is important, as most career theorists do not focus on this aspect that may be imperative within the South African context. It is for these reasons that Gottfredson's theory was chosen as a base for the present study.

The researcher chose to employ both Super (1980) and Gottfredson's (1981, 1996) theories as they complement each other and are the most suitable bases for the present study. Super (1980) and Gottfredson (1981, 1996) suggest that occupational aspirations are shaped and influenced during childhood by a number of factors. Super's (1980) theory highlights the value of curiosity and exploration in children, as this is considered a significant career activity. Gottfredson's theory highlights the development of gender-role stereotyping during childhood. Furthermore she focuses on the impact that gender roles and status have when it comes to making occupational choices. Thus both theories emphasise the importance of career exploration in a non-restrictive environment, allowing children to develop to their full potential.

Summary

Although all developmental theorists agree that human development proceeds according to prescribed stages throughout life they differ on what needs to be attended to in each stage. Erikson proposes that the conflict that arises between an individual's biological needs and environmental demands develops into a crisis, which has to be resolved at each developmental stage before the individual can successfully move on to the next stage of development. Subsequent development takes place when individuals successfully resolve the crisis they are faced with at each stage of development. It is during this developmental process that occupational aspirations begin to emerge. Piaget, on the other hand, maintains that cognitive development occurs through a series of sequential stages. In each of these stages certain skills have to be mastered before an individual can move onto the next stage. Accordingly, once children are able to think logically and reasonably they will be able to solve the problem of deciding on an occupation.

Career theorists such as Super (1980) and Gottfredson (1996) agree that occupational aspirations are formed during early childhood and that these become more realistic as the individual matures. Furthermore, they agree that a variety of factors shape the development of human beings and impact on their self-concept which, in turn, has an effect on occupational choice. As a consequence, both the theories of Super (1980) and Gottfredson (1996) have been chosen as bases for this study. Super's theory offers a broader framework of career development, while Gottfredson's theory offers a more specific structure as to how occupational aspirations develop from early childhood through to the stage where the adolescent is ready to make an occupational choice. Both career theorists concur that it is important for children to explore various occupations without being restricted by gender role boundaries. Thus it can be appreciated that Super and Gottfredson's theories complement each other and together provide a more encompassing view of career development.

Having described developmental and career developmental theories that provide a conceptual basis for this study, the next chapter examines international and South African research that is available on the occupational aspirations of children.

CHAPTER 3

RESEARCH REVIEW

Although career development is a lifelong process, little attention has been paid to this process during preadolescence (Trice et al., 1995; Wahl & Blackhurst, 2000; Whiston & Brecheisen, 2002). While there has been some research regarding the career development of early and middle school populations, there is relatively little research to support the theory of childhood experiences in career development when compared with the theory of adolescent and adult career development (Trice et al., 1995; Whiston & Brecheisen, 2002). In fact, it appears as if most career theorists assume that adolescents emerge with occupational aspirations that are modified by life events, active career exploration, and career counselling at the end of childhood without taking cognisance of how these occupational aspirations have developed (Holland, 1997). The origins of occupational aspirations appear to be vague, with most international and national research in this career field focussing on adolescents and adults.

Ginzberg was one of the pioneers who recognised this theoretical deficit and included early childhood in his career theory that was based on personal development (Ginzberg, Ginsburg, Axelrad, & Herma, 1951). Ginzberg's concept of occupational choice was that it is a developmental process commencing in early childhood and that it consists of a series of decisions based on interest, ability and opportunity. Since Ginzberg's initial study there has been a marked increase in research on the career development of children (Brown & Brooks, 1996; Gottfredson, 1981, 1996; Hackett, Lent & Greenhaus, 1991; McMahon, Gillies, & Carroll, 1999; Super, 1990).

Despite this increase, there remain only a few researchers who have studied career development in the preadolescent years. Of these, most have highlighted the fact that children as young as five years

can express occupational dreams and that many important attitudes are formed early and persist relatively unchanged throughout life (Dorr & Lesser, 1980; Jordan, 1977; Lavine, 1982; McCallion & Trew, 2000; Seligman, Weinstock & Heflin, 1991; Seligman, Weinstock & Owings, 1988; Stroeher, 1994). Such research indicates that an awareness of occupations, as well as the orientations towards them, is formed early on in human development.

Taking this indication into account, it becomes essential to consider contextual factors, as suggested by international research (Tracey & Ward, 1998; Trice et al., 1995), such as socioeconomic status, culture and ethnicity, and how these contextual factors may impact on the career development of children. Although research has considered such contextual factors regarding the occupational aspirations of children, it has focused mainly on personal variables, such as gender and age (Roe, 1956; Super, 1990; Vondracek, Lerner, & Schulenberg; 1986). The present study, while considering the occupational aspirations of Xhosa-speaking children in terms of the personal variables of age and gender, will also consider the social context of the participants.

There is some evidence to show that ethnicity has a direct impact on the socioeconomic status of individuals in Western society (Bobo, Hildreth & Durodoye, 1998; Leung, 1995; Reisman & Banuelos, 1984). It is therefore significant to consider this potential variable and its effect on the career development of children. Sharf (2002) states that, within the study of the career development of children, there is a notable absence of research on issues that confront children of colour in their career development. In addition, studies that have examined the effects of cultural expectations and ethnicity in children's occupational aspirations have noted that these factors do have some influence on the occupational aspirations of children and that there is a great need for additional research in this area (Betz, 1991; London & Greller, 1991).

Super et al. (1996) have affirmed that career development occurs within a social and economic context with socioeconomic factors influencing the development of the self-concept. This in turn has an effect on the career development of an individual. There is widespread agreement amongst career theorists that socioeconomic status is in fact a contextual factor that is likely to influence occupational aspirations and choice (Amundson, 1995; Awender & Wearne, 1990; Bobo et al., 1998; Gottfredson, 1981, 1996; Miller & Stanford, 1987; Phipps, 1995; Super, 1990). Despite such agreement, there has been limited research concerning the influence of socioeconomic status on the occupational aspirations of children (Sellers, Satcher, & Comas, 1999).

Research on the influence of age in the career development of children has been given some consideration and has shown that career choice is significantly narrowed during childhood and that early occupational aspirations are associated with actual career choices in later life (Gottfredson, 1981, 1996; Helwig, 1998c; Seligman, Weinstock, & Heflin, 1991; Trice, 1991). Gender and gender-role stereotyping of children's occupational aspirations, however, has been the most widely researched aspect of career development in children (Phipps, 1995; Wahl & Blackhurst, 2000). Numerous studies have shown that there is a relationship between occupational aspirations and gender, with gender influencing occupational aspirations and eventual career choice (Heppner, Burnett & Anderson, 1995; Feingold, 1988; Gianakos, 1995; Gottfredson, 1981; McKenna & Ferrero, 1991; Miller & Stanford, 1987; Phipps, 1995).

All of the research cited above is international. Within the context of South African career research, limitations have been found in many areas. The majority of South African research focuses on the career development of white adolescents and adults, with research on the career development of preadolescent black children being limited (De Bruin & Nel, 1996; Stead & Nqweni, 1999). There is widespread agreement amongst South African career researchers that there is insufficient research into

the career development of black children in South Africa (Cloete, 1980; Dean, 2001; Grobler, 2000; Horn, 1995; Watson, 1984). According to De Bruin and Nel (1996), research into the occupational aspirations of black South African learners constitutes only five percent of career research in the previous decade, with only one percent of this research actually focussing on preadolescent black children. Grobler (2000) has consequently called for the acquisition of baseline data with regards to the occupational development of preadolescents of all population groups within the South African context.

It can therefore be seen that a critical gap exists in South African career research in terms of its lack of focus on preadolescent children and, more specifically, black children. This national research deficit seems to echo international research. According to Watson and McMahon (2003), while research into occupational aspirations has received a good deal of attention during the last three decades, the majority of this research has focused on North American white children. Furthermore, the most consistently researched aspects of career development of children have been occupational aspirations and occupational gender stereotyping (Phipps, 1995; Wahl & Blackhurst, 2000).

This review chapter will therefore reflect the skewed focus of past career research, while taking cognisance of more general influences on the career development of children. The following section reviews the variables that previous researchers have considered as having an impact on the development of children's occupational aspirations. These variables include age, ethnicity, socioeconomic status and gender.

General influences on children's career development

According to Gysbers (1996), most children have little opportunity to develop their career identities as they have inadequate occupational role models. International research has been conducted in order to determine where children first learn about the occupations they aspire to and who influences

their aspirations the most. The role models with whom children have had contact or what they have seen on television seems to have a direct impact on their occupational aspirations (McMahon, Gillies & Carroll, 1999). More than 30 years ago Roe (1956) hypothesised that parental influence had an impact on children's occupational preferences. Since then, most research in this area has examined whether children's occupational aspirations are similar to their parents' occupations (e.g. Helwig, 1998a). Additional research suggests that, while parental influence on children's academic and social interests is strong, it is only one of several influences on occupational aspirations (Seligman et al., 1991). For instance, Trice and Knapp (1992) found in a study of preschool children that, while direct suggestion by significant others such as parents and teachers played an important role in the occupational aspirations of children, these suggestions played a diminishing role with age.

International research indicates that occupational aspirations are strongly related to parental occupations (Bandura, Barbaranelli, Caprara & Pastorelli, 2001; Birk & Blimline, 1984; Helwig, 1998b). It has been established that parents are somewhat restrictive with regards to their aspirations for their children's occupational future (Birk & Blimline, 1984). Parental biases and stereotypes are conveyed to children through encouragement or lack thereof toward certain career fields and through their willingness to give financial support to some career interests and not to others. Furthermore, it appears as if parents influence their children toward gender-appropriate occupational goals. Earlier research indicates that both boys and girls aspire to the occupations of their father but more recent research has established that children especially aspire to their mothers' occupation (Helwig, 1998b; Trice & Knapp, 1992; Trice et al., 1995). The reason for this may be that children have more first-hand knowledge of their mother's occupation. Overall, research findings suggest that children's gender-role attitudes towards occupations are changing, reflecting more macro changes in society (Dorr & Lesser, 1980; McMahon & Patton, 1997; Sandberg, Erhardt, Mellins, Ince & Meyer-Bahlburg, 1987). However,

there is research that suggests that children report traditional sex-role occupational aspirations despite their parents' educational levels and occupations (Zuckerman & Sayre, 1982).

Despite the frequency of occupational role portrayals on television, relatively little is known about what children learn from such exposure. Earlier research has suggested that watching television has an influence on children's occupational aspirations (Wright, Huston, Truglio, Fitch, Smith, & Piemyat, 1995). McMahon and Patton (1997) reported that their sample of 55 Australian children, ranging from the ages of 3 to 18 years, found media such as television, radio and print to have a significant influence on children's occupational aspirations. In their study of second- and fifth-graders, Wright et al. (1995) found evidence that points to children's occupational aspirations being influenced by television. Their findings indicated that children aspired more readily to occupations that they had positive ideas about, whether these ideas were realistic or not. This suggests that children may view the occupational role images they are exposed to by television as realistic.

Children spend the majority of their time in the classroom so it is reasonable to ask what effect their teachers may have on their occupational aspirations. Various studies, on children of different age groups, have shown that the attitudes of teachers and guidance counsellors towards certain occupations may have a considerable impact on the occupational aspirations of children (Rogers, 1982; Smith & Croom, 2000). Olson, Roese, and Zanna's study (1996) inferred that teachers manifested their personal beliefs and expectations in their behaviour towards children. In their study of second grade students, Smith and Croom (2000) found that teachers endorsed the occupational aspirations of boys more readily than those of girls, leading to a higher career self-concept in boys.

In contrast to the above-mentioned international research, there has been limited South African research that considers the significant influences on the occupational aspirations of children.

Furthermore, there has been no research to date on the age group within which the participants in the

present study fall. Thus far South African research on pre-primary and primary school children has found that neither parents nor television have a significant influence on the occupational aspirations of children (Dean, 1998, 2001; Grobler, 2000). According to Dean's (1998, 2001) research, the greatest influence on the occupational aspirations of children was related to their school environment. More than half the pre-primary and primary school children in Dean's study had not expressed their occupational aspirations to their parents and the majority of children had identified with their teachers.

There seems to be some inconsistency between South African and international research regarding the influence of role models on the occupational aspirations of children. Some researchers are of the opinion that parents are a major influence on their children's occupational aspirations, while other researchers believe that the major source of influence lies outside the home with schoolteachers and the media.

From this it can be seen that children's occupational aspirations are influenced by a wide variety of societal and environmental sources. Such sources exert varying amounts of influence on children's occupational aspirations depending on the children's age, gender, socioeconomic status and ethnicity. These variables will now be described in greater detail.

Age

The present study focuses on children who are in grades six and seven and between the ages of 10 and 14 years. According to Gottfredson's (1981, 1996) theory of circumscription and compromise, children's occupational aspirations follow a developmental sequence and their reasons for eliminating occupational aspirations will also follow this same developmental sequence. It is therefore important to address the influence that age may have on children's occupational aspirations both in terms of how

occupational aspirations may change as children mature, as well as how age impacts on the reasons why children narrow (i.e. circumscribe) their occupational aspirations.

It has been widely agreed that important growth takes place in the career development of preadolescents, with research suggesting that children of ten years of age have thought considerably about their future and can clearly articulate their occupational aspirations (Seligman, Weinstock, & Heflin, 1991). Earlier research (Dorr & Lesser, 1980) has established that even preschool children are aware of and generally accept the world of work, a prestige hierarchy for occupations, and gender stereotyping with regard to who can hold which occupations.

As children grow they begin to develop an understanding of the world of work. This understanding is directly related to their cognitive development, which in turn is influenced by their experiences. In an early study of nursery school children and third graders, Nelson (1978) found evidence that the process of career development is related to cognitive development and that children's occupational aspirations and reasoning are an indication of their changing modes of understanding the world. More recently, career research over a one-year time-span by McCallion and Trew (2000) investigated this relationship and found that with increasing age, cognitive abilities and skills, children's ability to express their thoughts relative to the future increased proportionally. Thus, children were able to express a greater number of future-related hopes regarding work as their ages increased.

In early childhood, occupational aspirations are considerably narrowed as children have less access to information and interaction from other sources. A natural consequence of children maturing and acquiring knowledge and skills is that they increasingly project themselves into adult roles and characterise these adult roles according to occupations. This has a direct impact on the types of occupations that they aspire to (Dorr & Lesser, 1980; Lent, Brown, Hackett & Lent, 1991; McMahon & Patton, 1997; Super, 1990). As they mature children also tend to accommodate their own abilities and

interests and become more autonomous in their occupational choice as they do not aspire only to the occupations that their parents have suggested (Helwig, 1998b; Seligman et al., 1991; Super, 1990). Thus children's occupational aspirations become more realistic as they aspire more towards adult careers and less towards fantasy occupations. Together these studies demonstrate that children identify with adulthood and occupational involvement early on, with younger children having less flexible occupational classification systems than older children (Helwig, 1998a).

A study on the career development of children by Trice et al. (1995) has supported and confirmed Gottfredson's theory, with age being established as an important predictor of how children will accommodate gender and social status when expressing their occupational aspirations. Trice et al. (1995) found that elementary school children eliminated more occupations with age and that their reasons for rejection followed the developmental sequence suggested by Gottfredson (1981, 1996). Thus, as children aged they increasingly included ability and status as factors in choosing certain occupations. Various researchers, who focused on children of all ages, have also studied the impact of age on occupational gender stereotyping and have found that children's age and developmental phase have an impact on the degree to which they gender stereotype the occupation they aspire to (Gerstein, Lichtman & Barokas, 1993; Liben, Bigler & Kroch, 2001; Riley, 1981; Stroehrer, 1994). For instance, Stroehrer (1994) found that the majority of five or six year olds in her study had already developed traditional notions of gender roles and viewed certain careers as gender-specific by the age of five years. From this study it is noted that children are aware of gender roles and that they discount certain occupations for themselves because they believe that they are unable to perform them due to their gender. In a study of primary school children Liben et al. (2001) found further evidence to support the notion that younger children show greater interest in occupations that are traditionally viewed by society as belonging to a specific gender. Thus girls demonstrated a higher interest in occupations that are

viewed as being traditionally feminine and boys demonstrated a similarly high interest in occupations that are viewed as masculine. It is, however, interesting to note that by middle childhood (which is the stage of the present participants) girls begin to show more interest in culturally masculine occupations and that boys continue to remain more interested in culturally masculine occupations.

Therefore with regards to children's concept of status, as they emerge into middle childhood they appear to place greater value on masculine over feminine jobs and the shift in girls' interest from feminine to masculine occupations can be ascribed to the notion that society perceives masculine occupations as carrying a higher status level than female occupations (Liben et al., 2001). According to Liben et al. (2001), this trend appears to expand in middle childhood and continues into adulthood. Gottfredson's theory is also in accord with Phipps' (1995) findings that the most frequently stated occupational preferences in her study of 8 to 11 year olds were for professions that implied high status. Bobo et al. (1998) confirm these findings and the theory of Gottfredson (1981, 1996) in their study of 1611 sixth graders in which they established that, as children matured, they seemed to aspire to less gender-stereotyped occupations and to base their occupational aspirations on the status level of the occupations. Several researchers have found that this is especially true for girls (Bobo, et al., 1998; Helwig, 1998a; Sandberg et al., 1987).

There are also contradictory findings that do not support the above research. Tremaine, Schau and Busch (1982) found that older children were more sex-typed than preschoolers in their occupational aspirations. They ascribed this to the fact that older children understand the cultural sex-typing norms more accurately than younger children do. In addition, another body of research suggests that, although children's occupational aspirations change over time, the career choices decided on in early childhood are as likely to result in career realisation as choices made during adolescence (Dorr & Lesser, 1980;

Gottfredson, 1981, 1996; Trice, 1991; Trice & McClellan, 1993; McCallion & Trew, 2000; Seligman, Weinstock, & Heflin, 1991).

Within the South African context, research regarding age as a factor that may influence occupational aspirations appears to have focused mainly on the adolescent and adult developmental stages (Erwee, 1980; Kuzwayo, 1990). Dean (1998, 2001) and Grobler (2001) studied the influence of age on both white and black preschool children's occupational aspirations and found that fantasy choices declined with increasing age and that the range of children's occupational aspirations tended to increase. Both found that the children in their studies were able to name the occupations that they aspired to. Horn's (1995) findings were in conflict with the above as she found that South African adolescents had unrealistic occupational aspirations and that realism did not increase with age.

International research places an emphasis on age as an important factor to consider with regards to occupational aspirations. It should be noted that, although there is a gap in South African career research, there seems to be some consensus regarding age as a factor that may influence the occupational aspirations of children. This study hopes to narrow this research gap in providing much needed baseline data with regards to this developmental age.

Gender and gender stereotyping

There is research that indicates that occupational aspirations are formed early in childhood and that gender and gender stereotyping remains an influential factor in the occupational aspirations of individuals throughout their lives (Gerstein et al., 1993; Vondracek, et al., 1986). According to Gottfredson's (1981, 1996) theory of circumscription and compromise, gender has an influence on the occupational aspirations of children over the age of six years. Gender stereotyping can be described as the assumptions that individuals make about the appropriate attitudes, behaviours and personality

characteristics ascribed to being male or female (Sellers et al., 1999). The participants of this study should therefore already have formed a concept of their gender, which will have an impact on their occupational aspirations. Gender and gender-role stereotyping have been the focus of the majority of studies on the career development of children to date (Biehler, 1982; Bobo et al., 1998; Phipps, 1995; Wahl & Blackhurst, 2000; Watson & McMahon, 2003).

A considerable focus of research on children's occupational gender stereotyping is the nature of the occupations that children aspire to. Gregg and Dobson (1980) reported that the impact of occupational gender stereotyping is of greater consequence for girls than for boys but more recent research informs us that gender stereotyping may be more significant for boys than for girls (Liben et al., 2001; Sandberg et al., 1987). Research in this regard has been contradictory. International studies have demonstrated that children's occupational aspirations are relatively conservative in terms of gender stereotyping and that they learn early on which work roles are associated with which gender (Bobo et al., 1998; Gottfredson, 1981, 1996; Helwig, 1998a; Looft, 1971; Riley, 1981).

Numerous researchers have examined gender differences in the occupational aspirations of children and have indicated that boys express more preferences for gender-stereotyped jobs than girls (Lavine, 1982; McMahon & Patton, 1997; Phipps, 1995; Sandberg et al., 1987). In support of this, recent research (e.g. Bobo et al., 1998; Helwig, 1998a; Sandberg et al., 1987) reflects earlier research findings by Gregg and Dobson (1980) and indicates that, with advancing age, girls aspire more to male dominated occupations. This suggests that girls have a more liberal view about non-traditional occupations than boys do. This could be ascribed to the fact that occupations commonly held by males have higher prestige attached to them than those traditionally held by women and that as girls mature they aspire to occupations of higher prestige (Gottfredson, 1981, 1996; Liben et al., 2001).

Factors such as societal influences on the gender stereotyping of occupational aspirations have received some research attention. A number of studies have examined these factors and their influence over time and have pointed out that occupational gender stereotyping has declined in recent decades (Bobo et al., 1998; Helwig, 1998b; Zuckerman & Sayre, 1982). The significance of these factors is demonstrated by the examples of the research conducted to determine whether the women's movement has had an influence on the occupational aspirations of boys and girls. In comparison to an earlier study by Biehler (1982) in which boys listed more occupational choices than girls, later studies have increasingly indicated that girls are listing more occupations than boys. Furthermore, both boys and girls are listing occupations that have not previously been perceived as suitable for their specific genders (Bobo et al., 1998). This could indicate that the range of occupations initially deemed as acceptable by both boys and girls has increased and that there has been a decline in the gender stereotyping of occupational aspirations.

Nevertheless, it is interesting that research suggests that, while children have developed more liberal attitudes with regards to occupational gender stereotyping, this has not been manifested in their own occupational aspirations (Arap-Maritim, 1984; Bobo et al., 1998; Stroehrer, 1994; Zuckerman & Sayre, 1982). The general decline in gender stereotyping of occupational aspirations has been attributed to a number of factors. Children, in general, are increasingly exposed to a greater variety of occupations, both real and vicarious (for example, watching television where males and females are observed in a diversity of non-traditional careers). In addition more women are moving into occupations previously reserved for men, thereby creating a broader range of role models for girls (Bobo et al., 1998). In this way, girls have been granted greater latitude by society to express gender atypical behaviour (Sandberg et al., 1987).

In contradiction to these findings, Phillips, Cooper and Johnson (1995) established that girls identified a much narrower range of professional occupations than boys. Of the professional occupations identified, girls were much more likely than boys to choose nursing and secretarial careers. Interestingly, earlier studies have also found that, although girls nominate and aspire to non-traditional occupations, their liberal attitudes do not reflect their expectations regarding their own futures (Gregg & Dobson, 1980; Zuckerman & Sayre, 1982). Such research demonstrates that, although girls found it acceptable for either men or women to be doctors or nurses, they would personally choose to be a nurse and believed that boys should be doctors.

In South Africa the majority of research into gender and gender stereotyping in occupational aspirations has focused on adolescent and adult population groups. In an earlier study conducted by Hamblin (1979), young adult females perceived certain occupations to be reserved almost exclusively for females and agreed with the compatibility of such occupations with their gender role. A more recent study into the occupational aspirations of Afrikaans-speaking adolescents demonstrates that a majority of girls were of the opinion that there are insufficient career opportunities for girls (Marais & Havenga, 1989).

There has been limited research into the impact of gender on the occupational aspirations of preadolescent children. Gender studies by Dean (1998, 2001) and Grobler (2000) on South African pre-primary and primary school children support the notion that preadolescent children classify occupations in terms of their suitability for males and females, as well as for their status levels. A pilot study conducted by Dean (1998) mirrored Gregg and Dobson's (1980) international research and found that both South African preschool boys and girls accepted that people could work within fields that were not traditionally gender stereotyped but that they were not prepared to accept such occupations for themselves. Dean's results also indicated that boys tended to choose occupations that were more

physically orientated and that girls preferred more social type occupations. Grobler's (2000) study of 44 white and 43 black pre-school children confirmed Dean's (1998) finding that both preschool South African boys and girls aspired to occupations that fell into the social typology but that a higher percentage of girls aspired to such jobs, with a higher percentage of boys aspiring to realistic occupations (with girls rarely aspiring to such occupations). Dean (1998) also established that a higher percentage of boys aspired to high status jobs, whilst a higher percentage of girls aspired to middle status level occupations. A more recent longitudinal study conducted by Dean (2001) indicates that both occupational aspirations and occupational gender stereotyping occur much earlier than theoretically expected in South African children and remain stable over time. This suggests that gender stereotyping and occupational aspirations do occur at an early age and may be influenced by differential socialisation processes that begin early in children's career development.

It can thus be concluded that research emphasises gender as an important factor in the development of the occupational aspirations of preadolescent children. As it has been demonstrated that there is conflicting evidence with regards to gender studies continued research in this area is therefore both essential and relevant (Trice, 1991; Wahl & Blackhurst, 2000). In addition, there is a need for longitudinal data which will confirm whether or not the occupational aspirations of childhood correspond with their actual career attainment during adulthood.

Socioeconomic status and ethnicity

International research on the career development of children has thus far focused primarily on white North American children, with only a few studies focusing on Australian, British, Finnish, Irish, Italian and Kenyan children (Watson & McMahon, 2003). As a result, variables such as socioeconomic status and ethnicity in relation to occupational aspirations have rarely been investigated. For the purpose

of this study, the terms ‘ethnicity’ and ‘ethnic group’ will be employed as they encompass the constructs of nationality, language, culture and race (Betancourt & Lopez, 1993). It follows that socioeconomic status and ethnicity will be considered together since there is evidence that demonstrates ethnicity and socioeconomic status may influence one another (Bobo et al, 1998; Leung, 1995; Reisman & Banuelos, 1984). One of the early researchers who has focused on this is Holland (1981). Holland proposed that ethnicity, as an independent variable, does not have as important an impact on the career attitudes of individuals as race and socioeconomic status combined, both of which are significant indicators of individuals’ career attitudes. Perhaps a more significant reason for considering these two variables together is that the participants of the present study have been drawn from a specific ethnic group that, for historical reasons, has been identified as lower socioeconomic status. In addition, Leung (1995) has established that the barriers constructed by socioeconomic status have a negative effect on the career development of ethnic minorities.

A pioneering study by Clark (1965) established that black boys and girls from lower socioeconomic status groups do not stereotype their occupations in the same way as white boys and girls, and that black children devalue their own abilities and thus aspire to lower status occupations than white children do. In general it was found that children from lower socioeconomic status families held more traditional views about occupations than their counterparts from higher socioeconomic status families. Furthermore research has also revealed that, although occupational accomplishment is lower for minority groups, parental aspirations for such children are generally as high as those held for white children (Dorr & Lesser, 1980). It should be noted that these results are dated and should therefore be viewed with caution.

More recently, Gottfredson’s theory (1981, 1996) has been the first major attempt to explore how the concept of social class becomes part of the developing self-concept, and how children between the

ages of 9 and 14 years are characterised by an awareness of social differences that is expressed in their occupational aspirations. There has been considerable evidence in other studies that has supported Gottfredson's theory.

Research indicates that many important attitudes are formed early in life and persist relatively unchanged throughout life. As early as the second grade (i.e. 7 years), African-American boys' occupational aspirations reflect the realities that they see around them. When aspiring to occupations children inadvertently recreate the social divisions that they observe and experience (Cook, Church, Ajanaku, Shadish, Kim, & Cohen, 1996). There is further evidence to illustrate that, despite improvements in the living conditions of minority groups, individuals from such groups continue to be concentrated in low status jobs and earn considerably less than whites (Hotchkiss & Borrow, 1990). Several studies reinforce the conclusion that children's occupational aspirations are limited to their own experiences which, in turn, are a consequence of their environment (Bobo et al., 1998; Dorr & Lesser, 1980; Malone & Shope, 1978; Phillips et al., 1995; Stroeher, 1994).

Bobo et al. (1998) established that children from Anglo-American higher socioeconomic status families chose a wider range of occupations than children from lower socioeconomic and minority families, indicating that the former may have been exposed to a wider range of experiences due to the advantages inherent in higher socioeconomic families. This supports previous research that has found that children from higher socioeconomic status backgrounds were more career mature than children from lower socioeconomic status backgrounds (Holland, 1981).

In researching socioeconomic status, findings show that children's occupational aspirations are not significantly related to socioeconomic status, but that socioeconomic status patterns are observed in the reasons children expressed for their occupational aspirations (Phipps 1995). Specifically, higher

socioeconomic status children are motivated more by their interests or altruism and lower socioeconomic status children by role models or economics.

While considering environmental influences it is significant to note that a wide variety of studies show that children across all socioeconomic status groups in the age group between 9 and 14 years of age aspire to high status level occupations as indicated by Gottfredson's theory (Bobo et al., 1998; Liben et al., 2001; Phipps, 1995; Stroehrer, 1994). Another factor to consider in combination with socioeconomic status and ethnicity is language. An early study by Gurevich (1975) has suggested that differences between the language or dialect of home and that of school influences success in school and ultimately has a limiting effect on the occupational aspirations and choices of children from impoverished linguistic minorities. The participants in the present study are all first language Xhosa speakers and this may have some impact on their achievement at school, where the language of instruction is English, which in turn may affect their occupational aspirations.

Within the South African context, research with regard to socioeconomic status and ethnicity has once again focused largely on adolescent and young adult age groups, with limited research available on the preadolescent child. The few South African studies that have explored the influence of socioeconomic status and ethnicity indicate that both are significant influences in the occupational aspirations of high school students. More specifically, the lower the socioeconomic status, the lower the status level of occupations adolescents aspire to (Cloete, 1980; Grobler, 2000; Westaway, 1983). Such studies have also indicated that the socioeconomic conditions of the majority of black South Africans have compelled them to pursue any career that does not require tertiary education (Grobler, 2000; Horn, 1995).

Munro (1984) indicates that career development differs for black and white South African children. He hypothesises that those traditional aspects of black South Africans' culture such as the

belief that individuals should live to help others (i.e. ubuntu), have influenced black children's occupational aspirations. Such a belief may be reflected in black adolescents' occupational aspirations towards the social fields. Studies conducted by Cherian (1991), Nel and Mkhabela (1987) and Watson, Foxcroft and Stead (1997) support the finding that the majority of black South African adolescents aspire to the helping professions with fewer aspiring to occupations in the engineering, technical and information technology fields.

Grobler (2000) and Dean (1998, 2001) both found that South African preschoolers from higher socioeconomic status groups named more artistic occupational types while children from lower socioeconomic status groups named more investigative and social occupational types and tended to choose more traditional careers. Grobler's (2000) study is specifically significant as her sample included black pre-primary school children who fell predominantly into the lower socioeconomic status group. These black children mostly aspired to high status level social type occupations.

Ethnic and socioeconomic status groups may come to an early recognition of the stereotyped and discriminatory patterns of occupational attainment amongst adults, and this could affect their own occupational aspirations and expectations. In conclusion it becomes clear that the occupational aspirations of black children are limited by various factors and this warrants further investigation.

Summary

Children's occupational aspirations are formed through a complex process involving the interplay of societal and personal attitudes, behaviour and the environment. It is evident that the majority of research cited in the present review has been conducted internationally and that many of the studies have investigated similar variables in an attempt to explore the occupational aspirations of children. However, there remains a gap in the research literature, especially in terms of the effects of ethnicity and

role models on children's occupational aspirations. In the South African context, there is also a considerable lack of research within the field of occupational aspirations in general. More specifically, there has been no research into the occupational aspirations of Xhosa-speaking children in the preadolescent age group and there is thus a definite need to explore how such children's occupational aspirations are influenced and change over time. It is anticipated that the present study will provide valuable information in this regard. The following chapter will discuss the methodology used in the present study.

CHAPTER 4

METHODOLOGY

The previous chapters have provided a theoretical outline and research review that offered a context for understanding the broader framework on which this study is based. This chapter will describe the methodology employed in conducting the present study. The chapter is divided into subsections beginning with a formulation of the problem. It then moves on to a discussion of the research method, a description of the participants and the measure, the procedure employed for collecting and coding the data, and finally a description of the statistical analysis employed. A brief discussion of the problem formulation is provided in the next subsection of the chapter.

Problem Formulation and Aims

The review of the research presented in Chapter Three highlights the fact that there is a lack of baseline information regarding the career development of South African children in general. So far career research in South Africa has focussed largely on white adolescents and it is worth noting that the majority of children attending South African schools belong to the black population group (Dean, 2001; Horn, 1995; Schonegeval, 1997; Stead, 1988, 1996). Further, the research review established that no studies on the career development of preadolescent black South African children could be traced. This is problematic as it indicates that career programmes in schools are presently not informed and guided by research that describes the realities of the children who participate in such programmes.

With the implementation of a new educational framework in all government schools (as discussed in Chapter One), life skills is now a compulsory subject for children at both primary and secondary educational levels. Included in such life skills training is career education. In order for career

education to benefit learners it is imperative that it is based on research on the learners for whom the programmes are designed. It is therefore necessary to explore the career development needs of specific age and cultural groups.

The present study is the first of its kind. Given its exploratory and descriptive nature, it is appropriate to formulate aims to guide the methodology rather than stating hypotheses. The present study's primary aim was to describe the occupational aspirations and occupational gender stereotyping of Xhosa-speaking South African senior primary school learners. More specifically, the aims may be stated as follows:

1. To describe and compare the occupational aspirations, in terms of their typology and status level, of male and female Xhosa-speaking senior primary school learners, and
2. To describe and compare the occupational gender stereotyping of male and female Xhosa-speaking senior primary school learners.

The findings from the present study will provide much needed baseline information that can be utilised to inform the development of career education programmes. The following section describes the research methodology adopted for the present research.

Research Method

The present study is quantitative in nature as the responses to the questionnaire utilised were coded into nominal categories and treated in a quantitative manner. Within this quantitative approach exploratory, descriptive and comparative research methods were considered to be the most appropriate for obtaining baseline information on Xhosa-speaking South African children's occupational aspirations and occupational gender stereotyping. Each of the methods utilised will be discussed in turn below.

The present study was exploratory in nature. The objective of an exploratory study is to explore unfamiliar research areas; therefore exploratory research is often the first stage in a sequence of studies. Exploratory research has further been described as research that explores a research question about which very little is known in order to expose generalisations and develop hypotheses which can be examined in greater depth at a later stage (Fouche & De Vos, 2000). Thus the aim of an exploratory study is to gain familiarity with a phenomenon and to achieve new insights into that phenomenon. The researcher has to become familiar with the basic setting, facts and concerns of the participants in order to generate new ideas and hypotheses. In addition, exploratory research assists with the development of new techniques for locating future data (Neuman, 2003). The present study was exploratory as no previous South African career research exists for the age and cultural group investigated. A disadvantage of exploratory research is that it rarely yields definitive answers. Bias is also a potential disadvantage of exploratory research, as researchers may allow pre-conceived ideas to influence the manner in which they conduct the research (Neuman, 2003; Whitley, 2002).

Descriptive research and exploratory research have many similarities and often overlap in practice. Descriptive studies are a method of providing more detail and meaning about phenomena that exist, the frequency with which they occur, as well as a method for the categorising of new information (Neuman, 2003; Struwig & Stead, 2001). The present study was descriptive in nature as it aimed to describe the occupational aspirations and occupational gender stereotyping of male and female Xhosa-speaking senior primary learners. Essentially a descriptive study focuses on and hopes to provide an answer to “how” and “who” questions. Why something is happening is of less concern for descriptive researchers. Thus, descriptive research does not endeavour to describe cause-and-effect relationships but focuses on collecting information about a situation as it exists (Harris, 1998).

The advantages of a descriptive approach are that it is specific, accurate and objective. The disadvantages of this approach are that there is no way of controlling for extraneous variables and consequently no cause-and-effect conclusions can be drawn. Furthermore, one cannot progressively investigate one aspect of an independent variable after another in order to get closer to the real cause (Neuman, 2003).

The present study may also be described as comparative since the aims of the study were to compare the occupational aspirations and occupational gender stereotyping of Xhosa-speaking senior primary school boys and girls. Neuman (2003) describes comparative research as an orientation rather than a separate research technique. The focus of comparative research is on the similarities and differences between variables (Neuman, 2003). The advantages of comparative research are that a comparison between two groups sharpens the focus of analysis of the research subject through the identification of gaps in knowledge. This may point the researcher in new directions and suggest insights and perspectives that had not previously been considered. Thus, comparative research is useful in generating hypotheses about unexplored subject areas (Bailey, 1994). A limitation of comparative research is that it does not provide the safeguards that are necessary for making strong inferences about causal relationships. This could lead to the results being influenced by rival explanations. In considering the present study it may be possible that the boys and girls differ on a variety of other variables, other than gender, that may have influenced their occupational aspirations (Bailey, 1994). While this section has discussed the advantages and disadvantages of the research method employed, the next section will investigate the characteristics of the learners who participated in the present study.

Participants

The present study has drawn its participants from the black African population and more specifically the Xhosa language group who reside in the Nelson Mandela Metropole. There are 5 369 672 Xhosa-speaking people living within the borders of the Eastern Cape region. Of this, 574 490 reside in the Nelson Mandela Metropole, 272 242 of whom are males while another 302 248 are females. According to the Department of Health (2003), the Eastern Cape region has the worst health and socioeconomic indicators in the country. This can be attributed to an unemployment rate of 48.5%, which has been ranked as the highest in the country. Furthermore, according to the Census (2001) results, 74.3 % of the black African population in the Eastern Cape region live in poverty (Department of Health, 2003). This poverty index has been assessed according to infant mortality rate, literacy levels and income bracket. In the present sample, 67 (24.45%) of the participants reported that both parents were unemployed, while 128 (46.71%) of the participants reported that one parent was unemployed. Eleven participants reported that both parents were deceased while another 30 reported that one parent was deceased. It is also worth noting that the majority of the participants whose parents are employed are employed in semi-skilled occupations. It is from this social milieu that the participants of the present study were drawn. This, in turn, impacts directly on the educational setting within which the participants find themselves.

The researcher consulted the Specialised Educational Services in order to assist with the selection of schools. Presently there are 287 government schools in the Nelson Mandela Metropole. Of these, 84 cater entirely for Xhosa-speaking children of primary school age. The schools catering for Xhosa-speaking children are all in township or farming areas and cater for the lower socioeconomic status levels. Consequently, these schools are state funded and do not charge school fees. As a result, the socioeconomic status levels of the learners enrolled in a school are assessed according to the geographic

location and the fee-paying structure of the schools. Thus, the schools catering for Xhosa-speaking children that were identified by the Specialist Educational Services division of the Department of Education are reflective of the lower socioeconomic status level in the Eastern Cape Region. The total enrolment figure for the 84 primary schools in the Nelson Mandela Metropole is 54 980, which is made up of 28 130 boys and 26 850 girls. The participants of the present study were drawn from two urban township schools within the Nelson Mandela Metropole.

A two-stage process of sampling was utilised in order to select participants for the present study. During the first stage of the sampling process schools were identified according to a purposive sampling method and contacted. The researcher's judgement is used in selecting a sample according to a purposive sampling method (Strydom & De Vos, 2000). The advantage of purposive sampling is that it is possible for the researcher to use prior knowledge to choose the research participants. The major disadvantage of purposive sampling is that the researcher cannot ensure that the participants who are selected represent the population from which they are chosen (Neuman, 2003). Two co-educational primary schools, with an enrolment of exclusively Xhosa-speaking learners, from a township in the Nelson Mandela Metropole were selected according to suitability and availability factors. Suitability factors included schools that had a total enrolment of Xhosa-speaking learners, were willing to participate in the study and were able to make time available during the school day for answering questionnaires. In addition, it was important that the learners were able to understand written instructions.

In the second stage of the sampling process, the participants for the present study were drawn according to a non-probability convenience sampling method from the two selected primary schools. Children in grades five and six who were in attendance on the day that the data collection took place were included in the sample. This made it convenient in terms of both time and financial expenses for

the researcher. Harris (1998) defines non-probability or convenience sampling as a sampling process in which the researcher selects a sample “primarily because it is accessible and reasonably representative of the population of interest” (p. 257). This sampling technique is advantageous as it saves time and money. It is also less complicated than probability sampling methods because it takes advantage of respondents who are already available. The disadvantages of non-probability sampling are that it is a less precise technique as no indication is given of possible bias and therefore it limits the possibility of generalising the results of the study beyond the specific sample researched (Bailey, 1994; Schonegeval, 1997).

The age range of the participants was predetermined as falling between 10 and 14 years of age. This ensured that all participants fell within Gottfredson’s (1981, 1996) third stage of development, as well as ensuring that the learners’ ages are educationally appropriate for the grade level that they are in. Thus outlier ages were excluded from the present study. The initial sample included 346 participants who all completed the Career Survey questionnaire as they were present on the day of administration. Seventy-two participants, (48 boys and 24 girls) were removed from the sample as their ages fell outside of the predetermined age range required for the study. The final sample size was 274, of which 157 participants were female and 117 participants were male. The age range of the sample was 10 years and 8 months to 13 years and 11 months. The mean age for the entire sample was 12 years and 4 months, while the standard deviation for the total sample was 10.38 months. The mean age for the boys was 12 years and 6 months and the standard deviation was 9.08 months. The mean age for the girls was 11 years and 7 months and the standard deviation was 11.07 months.

All the participants in the present study were classified within the lower socio-economic status level due to the geographic area that they lived in and the schools they attended. The total enrolment figures for Xhosa-speaking primary schools in the Nelson Mandela Metropole are higher for boys than

for girls. This sample was therefore not fully representative of the population. Furthermore, the sampling technique employed does not allow for the results to be generalised to the greater population. Moreover, the sample was relatively small, representing only two primary schools from the Nelson Mandela Metropole. However, the results can identify trends in the occupational aspirations and gender stereotyping of children in this developmental stage.

This section has provided a detailed description of the selection procedure as well as the demographic characteristics of the participants. In the following section the measure employed in the present study will be described.

The Measure

The measure utilised in the present study is an example of a self-report questionnaire (See Appendix A). The Career Survey, a measure developed by McMahon and Watson (2001) for use in both Australia and South Africa, is an adaptation of the Career Awareness Survey developed by Gillies, McMahon, and Carroll (1998). The Career Awareness Survey was utilised to gather information regarding children's knowledge and understanding of the world of work. The measure was also developed to establish whether or not children gender stereotype what males and females are able to do occupationally (McMahon & Watson, 2001).

Adaptation was necessary to ensure that the occupations listed in certain subsections of the measure were appropriate in South Africa and Australia. Three elementary school guidance counsellors in Australia and three senior primary school teachers in South Africa were consulted with regards to the appropriateness of the adapted questionnaire. All parties agreed that the questionnaire was appropriate for use with senior primary school learners. In addition, a Xhosa-speaking senior primary school teacher was consulted about the readability of the survey. From this consultation, numerous words were

identified that necessitated additional Xhosa translations. Two urban and two rural children from each country and at each at end of the age range were asked to read the questionnaire to establish its comprehension and readability levels. The results indicated that all eight children could read and comprehend the questionnaire (McMahon & Watson, 2001).

The revised measure consists of five sections, that is Forms 1 to 5. The content of Form 1 focuses on personal-social knowledge, and measures children's knowledge of occupational options and factors that could influence their occupational aspirations. The Form is comprised of eight open-ended questions that focus on what occupations children are interested in, what personal qualities they possess that would make them good at their favourite occupations, and what could influence their choice of occupation. Form 2 focuses on gender stereotyping. In this Form, children are required to generate their own list of occupations that each gender is capable or not capable of, as well as list occupations both males and females can do. Their responses determine whether or not children gender stereotype what males and females are capable of doing.

Form 3 focuses on learners' occupational stereotyping of occupations. This form was designed to determine whether or not children gender stereotype a specified list of twelve occupations. Children are required to indicate whether jobs could best be done by males, females or both genders. The occupations specified represent a professional and non-professional job for each of Holland's occupational types (Holland, 1997; McMahon & Watson, 2001). Form 4 focuses on the coding of occupations, and whether or not children can identify similarities or relationships between different types of occupations. Six occupational groups that are representative of Holland's occupational typologies (Holland, 1997) were selected. For example, children were asked to identify what a builder, hairdresser and gardener have in common. Form 5 was designed to determine if children see a possible relationship between what they learn at school and how this could be helpful to them in their future occupations. Six occupations were

listed each representative of a different Holland occupational typology. Children were asked to write down things that they do at school that may be helpful in the specified occupation.

For the purpose of this study Form 1, which poses specific questions (questions 1 and 2) related to learner's occupational aspirations, and Forms 2 and 3, which focus on gender and occupational gender stereotyping of occupations, will be employed to meet the specified aims of the present study.

The biographical questionnaire was included as the first page of the Career Survey and was filled in by the learners. The biographical questionnaire was constructed in order to gather data on important biographical variables, namely gender, age, parental employment and school attended. The biographical section of the questionnaire was provided in Xhosa as well as English, with both versions of the items placed side-by-side. A more detailed description of the back-translation method involved in translating questions is provided in the following section. The items included in the questionnaire were constructed in such a manner as to facilitate easy understanding as well as easy coding for statistical analysis. Names of the participants were included in the questionnaire. This was to ensure that all the questions were answered and so that the field workers could check the responses of each learner at the end of the session. If field workers needed clarification of answers they could check this with the individual involved. However, confidentiality of all information was assured.

Language and the Career Survey

As both the schools sampled consisted exclusively of Xhosa-speaking learners it was decided that the questions of the Career Survey should be translated into Xhosa. Although Xhosa-speaking learners are taught through the medium of English, it was felt that providing a Xhosa translation of the Career Survey would enhance the accuracy of the results.

According to Brislin, Lonner and Thorndike (1973), cross-cultural investigators should be concerned with the communication of many aspects of their research. These aspects include the

introduction of the research to the participants, the instructions, the questionnaires and participants' responses. Therefore cross-cultural research demands clear wording in one language and the subsequent translation into another. Werner and Cambell (1970) suggest that back-translation provides the researcher with a great deal of control over the questionnaire at the developmental stage of one's research.

For the purpose of this study, the Career Survey was translated into Xhosa by means of a back translation technique (Brislin, 1970; Foxcroft, 1985). This technique involves translating the survey from English to Xhosa and back to English again. Two bilingual, Xhosa-speaking psychology postgraduate students were involved in the back translation. One translator translated the information from the source language to the target language, while the other translated it from the target language back to the source language. In this way the translators could discuss any translation errors that were detected and resolve their differing opinions. According to Horn (1995) and Dean (2001), this translation technique has been successfully employed in translating from English into Laotian, French and Navajo languages. In South Africa the back translation technique has been successfully employed in translations from English into Afrikaans and Xhosa (Dean 1998, 2001; Foxcroft, 1985; Grobler, 2000; Hawke, 1986).

While few problems were reported for the Xhosa translation of the questionnaire, the following was highlighted:

- the title of the occupational aspiration measure remained in English as there was no suitable Xhosa translation;
- there is no suitable Xhosa translation for the word "accountant" and the word employed in Xhosa is "accountant" thus this term was retained;

- there is no suitable Xhosa translation for the word “model” and the word employed in Xhosa is “model” thus this term was also retained.

For the present study it was decided that the Xhosa items be placed side by side with the English items to ensure that learners had a fair opportunity to read and understand the questions in the language that they were most comfortable with. Learners were encouraged to respond in the language of their choice. Of the 274 participants, 115 responded entirely in English, while 117 responded utilising a combination of English and Xhosa. Only 42 participants chose to respond exclusively in Xhosa.

Procedure

Various schools in a township in the Nelson Mandela Metropole were contacted in order to determine their willingness to take part in the study. A clear description of the nature of the study as well as the confidential and voluntary nature of the research was provided for each principal. Furthermore principals were informed that feedback, in the form of a workshop, would be provided to the staff of the schools that had participated in the study. Permission was requested from the relevant authorities in the Department of Education. The schools selected to participate in the proposed study were contacted telephonically and informed that they had been selected for the study. Letters of confirmation of dates and times were sent to the schools. It is important to note that prior to the commencement of the study the researcher ensured that the present study fulfilled the ethical standards of the Ethics Committee of the University of Port Elizabeth.

However, due to the nature of the social problems in the area where the schools were situated, it was decided by the principals that they would sign for consent “in loco parentis”. This is ethically acceptable as the school takes parental responsibility for the learners in attendance. It had been decided in consultation with the school principals and staff that the questionnaires would be administered in a

group context. At the beginning of each session the learners were informed of the voluntary nature of the research. None of the learners decided not to participate.

Fouché (2000) stipulates that the major disadvantage of group-administered questionnaires is obtaining a suitable venue and time slot that suits all the respondents. Fortunately this was not a major concern for the present study. The schools in which the questionnaires were administered were disposed to providing classrooms as venues. However they stipulated a time limit of two hours in which the learners could complete the questionnaires in order not to unnecessarily disrupt lessons. The time provided was sufficient within which to complete the questionnaires as well as for breaks.

Xhosa-speaking postgraduate psychology students volunteered to participate in the fieldwork. They were trained in the administration of the questionnaire in a classroom context as none of them had had prior experience of working with primary school children. On the day of the fieldwork one field worker, one test administrator and one teacher was in attendance in every classroom. Each learner received a pencil and questionnaire while field workers and test administrators were provided with erasers and sharpeners.

A standard set of instructions for every section was provided to each test administrator. Learners responded to the questionnaires according to a structured format provided by the test administrators. Test administrators supplied instructions, explained each section to the learners and clarified possible uncertainties. Field workers were on hand to assist learners if necessary and to check that learners were able to keep up with the speed at which the survey was being administered. According to Fouché (2000), this method of administration should be reserved for exceptional circumstances in order to limit the possibility of bias, as the test administrators may include their own opinions or examples in the instructions. Unfortunately this was the only manner in which the questionnaire could be administered because the children were young and had no previous experience in completing questionnaires of this

nature. Within this situation it was ensured that all the learners would be given standardised explanations as well as the opportunity to respond to the questions if they were not sure what they meant.

Furthermore this method was selected as it saved the researcher time and money.

Data Coding

The aim of the statistical analysis of the data was to provide a description of the participants' occupational aspirations and occupational gender stereotyping. In order to quantify the learners' occupational aspirations, responses to questions were coded according to Holland's (1985; 1997) theory of occupational interest types. Holland's theory is based on the hypothesis that individuals' career interests are an expression of their personality. Specific occupational environments are therefore sought by individuals in order to allow them the opportunity to demonstrate their skills and abilities, to communicate their values and attitudes and to take on acceptable problems and roles (Holland, 1985; 1997). Holland described people as belonging to six personality types, each with a matching type of work and interpersonal environment. Every occupational aspiration will be given a single letter from Holland's six letter codes (Realistic, Investigative, Artistic, Social, Enterprising or Conventional). The following is a brief description of the six personality and environmental types:

Realistic Type

Realistic individuals have a preference for activities that involve the methodical manipulation of machinery, tools or nature. Such individuals could possibly lack social skills and would consequently favour working with things and ideas rather than people. Their work environment would ideally include concrete tasks encompassing mechanical skills, practical activities and physical strength. Typical occupations include engineering, trades, wildlife manager, and navy and air force personnel.

Investigative Type

Investigative individuals are described as being analytical, curious, methodical and precise, preferring to utilise complex and abstract thought processes to solve problems. These individuals value making use of their intellect and are more likely to enjoy scientifically based activities. Furthermore they are more likely to avoid social situations and they tend to lack leadership and persuasive skills. These individuals are prone to thrive in environments where the development of cautious and critical thinking is encouraged through the observation and investigation of physical, biological, or cultural occurrences. Therefore their ideal occupations will be intellectual and scientific in nature where independent and rational thinking is highly valued.

Artistic Type

Artistic individuals can be described as individualist, introspective and expressive in nature. They value expressing themselves in a liberated and unmethodical manner, through art, music or writing. Artistic occupational environments encourage the expression of personal and emotional issues rather than logical expression.

Social Type

Social individuals are interested in helping people through teaching, assisting with personal or occupational problems or by providing services to those in need. These individuals value solving problems through open discussion rather than through the allocation of tasks to specific individuals. They tend to shy away from occupations that require working with machines. The environment in which these individuals thrive reinforces social skills and requires that they are social change agents. Occupations considered are more altruistic and idealistic and include teachers, social workers, counsellors and nurses.

Enterprising Type

Enterprising individuals enjoy interacting with other people where they are provided with the opportunity to use their verbal skills in order to sell, persuade or lead. They thrive in environments where they are encouraged to use aggressive social and leadership skills to attain organisational or self-interest goals. They need to be rewarded for displaying their values of power and status through monetary means. Occupations that interest them focus on the acquisition of wealth through power and persuasion such as politics, salespeople, managers and lawyers.

Conventional Type

Conventional individuals relate to the systematic manipulation of data in a structured environment. They tend to be highly organised, dependable, accurate and neat. They value working in a structured environment that requires routine processing of verbal or numerical data. Typical occupations would require high levels of organisation and dependability such as banking, accounting and clerical work.

The majority of South African occupations have been coded according to Holland's typology in the South African Dictionary of Occupations (Taljaard & Von Mollendorf, 1987). Such descriptions are coded for three typologies, with the first letter of the code usually representing the major occupational type (Holland, 1973, 1985). The researcher, according to the first letter representing the main occupational type, coded the responses of the present sample. The participants' occupational aspirations were further coded according to the status level or level of training required for successful entry into a particular career. An occupational status level code, also provided by the South African Dictionary of Occupations, was ascribed to each occupation (Taljaard & Von Mollendorf, 1987). Status level codes range from 1 for professional and high-level workers through to 5 for unskilled workers. These status levels are presented in Table 1.

Table 1

Status Levels of Occupational Aspirations

Level	Description
1	High-level workers (e.g., university degree, technikon diploma).
2	Middle-level workers (e.g., college diploma – nursing / teaching).
3	Skilled workers (e.g., technical college, matric).
4	Semi-skilled workers (e.g., standard 6, 7 or 8).
5	Unskilled workers (e.g., primary school or no education).

The present sample also named occupations that did not appear in the South African Dictionary of Occupations. These were classified under the term ‘non codeable occupations’. These occupations were ascribed level 5 status, as they do not require specific education or training. The ‘non codeable occupations’ category included options such as prostitute and thief. To increase reliability of the coding a second rater coded. This second rater was a registered career counsellor who was trained in Holland’s theory and classification system. The inter-rater reliability between the researcher and second rater was 98%.

Data Analysis

Descriptive statistics are concerned with summarising and describing the sample and are useful as the data is presented in a tabular format so that the information is presented concisely and comprehensibly to the reader (Bailey, 1994; Gravetter & Wallnau, 1995). Descriptive statistics (i.e.,

frequency counts and percentages) were computed for the coded occupational aspiration typology and status levels. Frequency counts were first obtained for the typology data and then converted to percentages for reporting. Occupational aspirations according to Holland's typology and status level were then cross-tabulated for the sample as a whole as well as for gender to allow an examination of inter relationships. Initially the total number of occupational aspirations was examined. This provides the reader with a fuller spectrum of specific occupations that the participants were aware of. The five most popular occupational aspirations were then cross-tabulated with respect to typology and status level in order to enhance the quantitative findings.

Frequency counts were also coded in order to describe the data on occupational gender stereotypes. Cross tabulations were computed to allow the researcher to examine the interrelations between gender and occupational gender stereotyping. This occurred in order to ascertain whether the participants gender stereotype what males and females are capable of doing and whether they gender stereotype a specified list of occupations.

As the variable of gender was unevenly distributed in the sample, the researcher made the decision not to use inferential statistical tests in order to examine the significance of the observed differences between the gender groups. None the less, the researcher was aware that employing descriptive statistics thus limits the inferences and generalisations that can be made from the sample to the population. The findings of the present study are reported in the following chapter.

CHAPTER 5

RESULTS

The primary aim of this study is to explore, describe and compare the occupational aspirations and occupational gender stereotyping of a sample of male and female Xhosa-speaking South African senior primary school learners. More specifically, the study aimed to explore, describe and compare these occupational aspirations and occupational gender stereotyping in terms of their typology and status level. The results from the present study will be described according to these aims.

The first section of this chapter will explore the occupational aspirations of the participants according to Holland's (1985) typology of occupations and occupational status levels. The second part of the chapter will explore occupational gender stereotyping in terms of Holland's typology of occupations and occupational status levels. It will also report on whether the sample holds gender-stereotypical views regarding certain occupations. The sample consisted of more girls than boys; consequently the boys and girls could not be statistically compared to each other. The results in each section of the chapter are first reported for the entire sample then for each gender. The results will be reported by means of frequency counts (and percentages) and tables will be used to illustrate the findings.

The researcher will report on the results by referring to traditional male and traditional female occupations. Occupational choices were categorised as traditional and non-traditional according to criteria established by Statistics South Africa (2002). Riley (1981) defined traditional female occupations as those that characteristically provided lower incomes, lower status and fewer opportunities for promotion than male occupations do. There are a variety of thresholds from as low as 30 to as high as 70 (Rainey & Borders, 1997). The researcher utilised the higher limit which states that if

more than 70% of workers in an occupation are either male or female, the occupation is considered as traditional for that predominant gender. Examples of traditional female occupations include domestic worker, nurse, teacher, social worker and kitchen worker. Examples of traditional male occupations include police officer, doctor, engineer, gardener and builder.

Occupational Aspirations

In this section of the chapter the occupational aspirations of the male and female Xhosa-speaking senior primary school learners will be discussed in terms of Holland's typology and status level classification system. The results for the occupational aspiration frequencies are provided below.

Occupational Aspiration Frequency

Occupational Typology

Initially, participants were asked what occupations they were interested in doing when they grew up, and they were invited to write down all the occupations that they were interested in. While some learners named up to ten possible occupations, the majority named three possible occupations that they aspired to. This relates to a mean response of 2.7 for the whole sample and explains why the total number of responses (N=729) adds up to more than the total number of participants (N=274). Table 2 provides a summary of the occupational aspirations of the boys and girls in the sample.

Table 2

Frequency Counts (and Percentages) of All Occupational Aspirations Named: Holland's Typology and Gender

Holland's Typology	Total Responses (N= 729)	Gender	
		Boys (n= 298)	Girls (n= 431)
Realistic	31 (4.25%)	22 (7.38%)	9 (2.02%)
Investigative	292 (40.05%)	134 (44.97%)	158 (36.66%)
Artistic	41 (5.63%)	10 (3.36%)	31 (7.20%)
Social	336 (46.09%)	115 (38.59%)	221 (51.28%)
Enterprising	23 (3.16%)	15 (5.03%)	8 (1.88%)
Conventional	6 (0.82%)	2 (0.67%)	4 (0.96%)

An examination of the descriptive data indicates that occupations that fell within Holland's Social typology were most frequently aspired to, followed by Investigative types of occupations. Artistic, Realistic and Enterprising types of occupations were less frequently aspired to and aspirations towards Conventional types of occupations were minimal. An examination of the occupations the boys aspired to indicates a trend towards Investigative types of occupations more than any other typology, with Social types of occupations being almost as popular. Realistic, Artistic and Enterprising types of

occupations were aspired to far less frequently with only two Conventional types of occupations being aspired to.

Girls differed in the frequency of occupational aspirations mentioned when compared to the boys. Occupations that fell within Holland's Social typology were most popular with girls, with just over half of all occupations aspired to falling within this typology. Investigative types of occupations reflected the second highest number of aspirations, with over a third of all listed occupations aspired to falling into this typology. Less than ten percent of occupations aspired to fell within Holland's remaining typologies.

Status Level

The frequency counts and percentages of the participants' occupational aspirations in terms of the status level of the occupations are provided in Table 3. The total numbers of responses add up to more than the sample size as participants were invited to name an unlimited amount of occupations that they aspired to.

Of the total sample four-fifths of the participants aspired to occupations that fall into the high status level, while almost a fifth aspired to occupations that fall into the middle status level. Less than one percent of the occupations that the participants aspired to fell into each of the skilled, semi-skilled and unskilled status levels.

Table 3

Frequency Counts (and Percentages) of All Occupational Aspirations Named: Status Level and Gender

Status Level	Total Responses (N=729)	Gender	
		Boys (n=298)	Girls (n=431)
High	590 (80.93%)	224 (75.17%)	366 (84.92%)
Middle	125 (17.15%)	66 (22.15%)	59 (13.69%)
Skilled	6 (0.82%)	4 (1.34%)	2 (0.46%)
Semi-skilled	4 (0.55%)	3 (1.00%)	1 (0.23%)
Unskilled	4 (0.55%)	1 (0.34%)	3 (0.70%)

Three-quarters of all occupations that the boys aspired to fall within the high status level, while less than a quarter of the occupations aspired to fall within the middle status level. Less than two percent of the occupations aspired to fall within each of the skilled, semi-skilled and unskilled status levels. More than four-fifths of the occupations that the girls aspired to fall within the high status level, with over ten percent of the occupations aspired to falling into the middle status levels. Less than one percent of the occupations that the girls aspired to fall into each of the skilled, semi-skilled and unskilled status levels. The following section of the chapter will focus on the participants' favourite occupations.

Favourite Occupational Aspirations

Occupational Typology

In order to narrow the range of occupations that the participants aspired to, they were asked to select their favourite occupation from the list of occupations they had previously named. Table 4 presents the frequency counts and percentages for the participants' favourite occupational aspirations according to Holland's occupational typology and gender.

When the participants were asked to choose their favourite occupation from the list that they had generated, most favourite occupational aspirations fell within Holland's Investigative and Social typologies. This is similar to the results presented in Table 2, in which the participants named all the occupations that they were interested in. It is worth noting that when the participants had the opportunity to name more than one occupational aspiration the majority of such aspirations fell into Holland's Social typology of occupations, but when they selected their favourite occupational aspiration the majority fell within Holland's Investigative typology of occupations.

The results for both the boys' and girls' favourite occupational aspiration responses followed a similar trend to the aspirations in Table 2. More than half of the boys aspired to Investigative types of occupations, while a third of the boys aspired to occupations that fell within Holland's Social typology of occupations. Less than ten percent of the boys' favourite occupational aspiration fell into the Realistic typology of occupations, with less than five percent of boys' favourite occupational aspirations falling into Holland's remaining typologies of Enterprising, Artistic and Conventional.

Table 4

Frequency Counts (and Percentages) of Favourite Occupational Aspirations: Holland's Typology and

Holland's Typology	Total (N=274)	<u>Gender</u>	
		Boys (n=117)	Girls (n=157)
Realistic	12 (4.38%)	9 (7.69%)	3 (1.90 %)
Investigative	134 (48.91%)	61 (52.14%)	73 (46.50%)
Artistic	12 (4.38%)	2 (1.71%)	10 (6.40%)
Social	104 (37.96%)	39 (33.33%)	65 (41.40%)
Enterprising	7 (2.55%)	4 (3.42%)	3 (1.90%)
Conventional	5 (1.82%)	2 (1.71%)	3 (1.90%)

Slightly less than half of the girls' favourite occupational aspirations fell into the Investigative type of occupations, while over 40% fell within Holland's Social typology of occupations. Over five percent of girls' favourite occupational aspirations fell into the Artistic typology, while less than two percent fell into the remaining typologies of Realistic, Enterprising and Conventional.

Status Level

The frequency counts and percentages of the participants' favourite occupation that they aspire to in terms of status level and gender are provided in Table 5. These results follow the same trend as the results presented in Table 3, with the majority of the total sample aspiring to high status level occupations, followed by middle status level occupations. Less than two percent of the participants aspired to skilled, semi-skilled and unskilled occupations.

Table 5

Frequency Counts (and Percentages) of Favourite Occupational Aspiration: Status Level and Gender

Status Level	Total (N=274)	Gender	
		Boys (n=117)	Girls (n=157)
High	228 (83.21%)	93 (79.49%)	135 (85.98%)
Middle	41 (14.96%)	21 (17.95%)	20 (12.74%)
Skilled	1 (0.37%)	1 (0.85%)	0 (0%)
Semi-skilled	3 (1.09%)	2 (1.71%)	1 (0.64%)
Unskilled	1 (0.37%)	0 (0%)	1 (0.64%)

Further similarities to the results in Table 3 are evident in the results for boys and girls. Four-fifths of the boys aspired to occupations falling into the high status level, while slightly less than a fifth aspired to middle status level occupations. Less than three percent of the boys' favourite occupational aspirations fell into the skilled, semi-skilled and unskilled status levels.

More than four-fifths of the girls' favourite occupational aspirations fell into high status level occupations, followed by just over ten percent in the middle status level. Less than two percent of girls' favourite occupational aspirations fell into the skilled, semi-skilled and unskilled status levels.

Table 6 provides a breakdown of the five most popular occupations chosen by the participants according to Holland's typology and status level. The participants provided a list of 33 occupations that they aspired to and these are provided in Appendix B. The results presented in Table 6 indicate that for more than a third of the participants 'doctor' is their favourite occupational aspiration. This fell into Holland's Investigative typology and is classified as being a high status level occupation. 'Lawyer' and 'teacher' were both named as the second most popular occupational aspirations with a fifth of the entire sample selecting these occupations. The third most popular occupational aspiration was 'social worker' with just under a tenth of the total sample selecting it. The fourth and fifth most popular occupations aspired to were 'police officer' and 'nurse'.

Table 6

Five Favourite Occupations according to Holland's Typology and Status Level: Total Sample

Occupation	Typology	Status	Total (N=274)
1. Doctor	Investigative	High	96 (35.04%)
2. Lawyer	Investigative	High	30 (10.95%)
... Teacher	Social	High	30 (10.95%)
3. Social worker	Social	High	28 (8.26%)
4. Police officer	Social	Middle	18 (6.57%)
5. Nurse	Social	Middle	15 (5.47%)

Given that there were more girls in the sample, the results for the total sample were probably skewed because the boys and girls differ somewhat with regards to their favourite occupational aspirations. The boys' results for their five favourite occupations are presented in Table 7. There were four occupations that shared fifth position.

Table 7

Five Favourite Occupations according to Holland's Typology and Status Level: Boys

Occupation	Typology	Status	Boys (n=117)
1. Doctor	Investigative	High	50 (42.74%)
2. Police officer	Social	Middle	15 (12.82%)
3. Teacher	Social	High	7 (5.98%)
4. Pilot	Realistic	High	6 (5.13%)
5. Lawyer	Investigative	High	5 (4.27%)
Social worker	Social	High	5 (4.27%)
Professional sportsman	Social	High	5 (4.27%)
Traffic officer	Social	Middle	5 (4.27%)

Over 40% of the boys selected 'doctor' as their favourite occupation, followed by over a tenth aspiring to becoming a 'police officer'. Over ten percent of the boys were almost equally divided between selecting 'teacher' and 'pilot' as their favourite occupational aspiration. The remaining 20% of boys are equally split in their aspirations of becoming 'lawyers', 'social workers,' 'professional sportsmen' and "traffic officers."

The girls differed from the boys with regards to their favourite occupational aspirations. This information is presented according to frequency counts and percentages in Table 8.

Table 8

Five Favourite Occupations according to Holland's Typology and Status Level: Girls

Occupation	Typology	Status	Girls (n=157)
1. Doctor	Investigative	High	46 (29.30%)
2. Lawyer	Investigative	High	25 (15.92%)
3. Teacher	Social	High	23 (14.65%)
Social worker	Social	High	23 (14.65%)
4. Nurse	Social	Middle	15 (9.56%)
5. T.V. Presenter	Artistic	High	5 (3.18%)

Similar to the results of the boys, the girls also selected 'doctor' as their favourite future occupation. Just under half of the girls were almost equally split in their choices of 'lawyer', 'teacher' and 'social worker' as their favourite occupational aspirations while a little less than a tenth aspired to being 'nurses'. Lastly, just over three percent of the girls selected 'TV presenter' as their favourite occupational aspiration.

Thus when the learners were required to select their favourite occupation almost half of them aspired to occupations in Holland's Investigative typology, while just over a third of the learners aspired to occupations in Holland's Social typology. A higher percentage of boys than girls' selected Investigative types of occupations, while a higher percentage of girls named occupations that fell within

Holland's Social typology. Over 80% of the total sample aspired to occupations within the high status level, while slightly more than a tenth aspired to middle status level occupations. The remaining two percent aspired to occupations that fell into the skilled and semi-skilled status levels. None of the participants selected unskilled status level occupations.

Thus far this section has described the occupational aspirations of the total sample as well as for gender in terms of Holland's typology and status level classification system. The following section of the chapter will focus on the extent to which boys and girls gender stereotype specific occupations.

Occupational Gender Stereotyping

The second aim of the present study was to explore, describe and compare the occupational gender stereotyping of Xhosa-speaking senior primary school boys and girls. Participants were invited to write down occupations that they thought women could do. They were then asked to write down occupations they thought women could not do. The same questions and procedure were followed in terms of men and suitable occupations. Finally the participants were asked to write down occupations that they thought both women and men could do. The results from these questions are described below.

Occupations that women can do

Participants were invited to write down as many occupations as they could think of that women can do. Thus frequencies add up to more than the total number of participants. Furthermore, some participants could not think of any occupations and replied "I do not know", while others were of the opinion that both men and women could do all occupations and replied "there is nothing they can't do" or "they can do everything." The latter responses will be discussed further on in this chapter. Some of the occupations such as 'thief' and 'prostitute' could not be coded according to Holland's (1985)

typology of occupations and classification of status levels. These occupations are recorded as “non codeable” in subsequent tables.

Table 9 represents the frequency counts and percentages of the occupational gender stereotypes that the total sample of boys and girls hold concerning the types of occupations that women can do. Responses are coded according to Holland’s typology of occupations and for gender. A list of all occupations named per typology, status level and gender is available in Appendix C. Of the 274 participants, three males and four females responded “I do not know” and one female participant replied that women could do any occupation. All of the occupations named were codeable.

Half of the occupations named by the total sample as suitable occupations for women fell into Holland’s Social typology with another quarter of the occupations named falling into the Realistic typology. Less than ten percent of the occupations named fell into the Investigative typology, while even lower percentages were evident for the remaining typologies of Artistic, Enterprising and Conventional.

Half of the occupations named by boys as occupations that women can do fall within Holland’s Social typology of occupations, while close to a third of the occupations fall into Holland’s Realistic typology of occupations. Less than a fifth of the occupations named fell into Holland’s remaining occupational typologies of Investigative, Artistic, Enterprising and Conventional typology.

Table 9

Occupations Women Can Do according to Holland's Typology and Gender

Holland's Typology	Total Responses (N=723)	Gender	
		Boys (n=294)	Girls (n=429)
Realistic	187 (25.58%)	93 (31.31%)	94 (21.66%)
Investigative	70 (9.58%)	21 (7.07%)	49 (5.76%)
Artistic	39 (5.34%)	14 (4.71%)	25 (11.29%)
Social	398 (54.45%)	157 (52.86%)	241 (55.53%)
Enterprising	21 (2.87%)	7 (2.36%)	14 (3.23%)
Conventional	8 (1.09%)	2 (0.67%)	6 (1.38%)

Similar to the results for the boys, girls were also of the opinion that women were most suited to follow Social types of occupations, with just over half of all occupations named falling within this typology. Just over a fifth of the occupations named by the girls as suitable for women fell into the Realistic type of occupations, while over 10 percent of the occupations named by the girls as suitable for women were Artistic types of occupations. Less than six percent of the occupations named by girls fell within each of Holland's remaining occupational typologies of Investigative, Enterprising and

Conventional. From the results presented in Table 9 it would seem as if boys and girls are largely in agreement that Social and Realistic types of occupations are most suitable for women.

Table 10 provides a breakdown of the five most frequently named occupations for women according to Holland's typology and status level for occupations for the total sample. Appendix D presents a more detailed description of all the occupations named.

Table 10

Most Frequently Named Occupations that Women Can Do according to Holland's Typology and Status

Level: Total Sample

Occupation	Typology	Status	Total (N=723)
1. Domestic worker	Social	Unskilled	102 (13.95%)
2. Nurse	Social	High	101 (13.82%)
3. Teacher	Social	High	75 (10.26%)
4. Kitchen work	Realistic	Unskilled	42 (5.75%)
5. Doctor	Investigative	High	41 (5.61%)

When further examining the specific occupations that were named as occupations that women could do, it is interesting to note that the results indicate that almost half of the occupations named are considered as traditional female occupations. 'Domestic worker' and 'nurse' were the most frequently named occupations for women with just over a quarter of the responses indicating this. A tenth of the responses named 'teacher' as an occupation that women could do and the remaining ten percent of

named occupations consisted of ‘kitchen worker’ and ‘doctor’. It is worthwhile noting that three of the occupations fell within the high status level while the other two fell within the unskilled status level.

The five occupations that the boys named most frequently as occupations that women could do are presented in Table 11.

Table 11

Most Frequently Named Occupations that Women Can Do according to Holland’s Typology and Status

Level: Boys

Occupation	Typology	Status	Boys (n=294)
1. Domestic worker	Social	Unskilled	44 (14.82%)
2. Nurse	Social	High	39 (13.13%)
3. Teacher	Social	High	24 (8.08%)
4. Kitchen work	Realistic	Unskilled	17 (5.72%)
5. Doctor	Investigative	High	13 (4.38%)

The occupations ‘domestic worker’ and ‘nurse’ each received just over a tenth of the responses. Less than a tenth of the responses indicated that women can also be ‘teachers,’ while the remaining ten percent of responses were almost equally split between ‘kitchen worker’ and ‘doctor’. Three of the occupations fell within Holland’s Social typology while the remaining two occupations each fell into the Realistic and Investigative typologies. With regards to the status levels of the occupations three fell within the high status levels and two fell in the unskilled status levels.

The five occupations that the girls named as most suitable for women are presented in Table 12 and differ in order to the boys' results.

Table 12

Most Frequently Named Occupations that Women Can Do according to Holland's Typology and Status

Level: Girls

Occupation	Typology	Status	Girls (n=427)
1. Nurse	Social	High	62 (14.29%)
2. Domestic worker	Social	Unskilled	58 (13.36%)
3. Teacher	Social	High	51 (11.75%)
4. Doctor	Investigative	High	28 (6.45%)
5. Kitchen worker	Realistic	Unskilled	25 (5.76%)

'Nurse' and 'domestic worker' were most frequently named by the girls as occupations that women could do with just under a third of the responses indicating this. A little over a tenth of the responses named 'teacher' as the third most popular occupation for women while the remaining responses indicated that 'doctor' and 'kitchen worker' were also popular occupational choices for women. It is worthwhile noting that the results presented in Table 4 differ somewhat to the results of Table 12. The majority of the female participants indicated that they aspired to becoming a 'doctor' but when asked to name some occupations that women can do, 'doctor' was only named as the fifth most popular occupation. None of the girls aspired to becoming 'domestic workers' when choosing their

favourite occupations, but when asked to name some occupations that women can do they have selected it as the second most popular occupation after 'nurse'.

The above section examined the participants' perceptions with regards to occupations that women can do. The following section will explore what the participants perceive as occupations that women cannot follow.

Occupations that women cannot do

This section of the chapter focuses on the types of occupations the participants' view as unsuitable for women. These results are presented according to Holland's typology of occupations, status level and gender. Table 13 represents the frequency counts and percentages that the total sample named as occupations that women cannot do. Four male and nine female participants responded with "I do not know" and two male and eight females responded that "women can do any occupation."

The majority of occupations (i.e., 70%) named by the total sample as occupations that women cannot do fell within Holland's Realistic typology of occupations, while close to a fifth of the occupations fell into Holland's Social typology. Less than seven percent of the occupations named by the participants fell within Holland's Investigative typology and less than three percent fell into Holland's remaining typologies of Enterprising, Artistic and Conventional.

Over 70% of the occupations named by the boys as occupations that women cannot do fell into Holland's Realistic typology and over ten percent fell within Holland's Social typology of occupations. Less than five percent of the remaining occupations named fell into each of Holland's typologies of Investigative, Enterprising, Artistic and Conventional.

Table 13

Occupations Women Cannot Do according to Holland's Typology and Gender

Holland's Typology	Total Responses (N=488)	Gender	
		Boys (n=211)	Girls (n=277)
Realistic	358 (70.06%)	158 (72.81%)	200 (68.03%)
Investigative	34 (6.65%)	18 (3.52%)	16 (5.44%)
Artistic	3 (0.59%)	1 (0.46%)	2 (0.68%)
Social	85 (16.63%)	30 (13.82%)	55 (18.71%)
Enterprising	4 (0.78%)	2 (0.92%)	2 (0.68%)
Conventional	2 (0.39%)	2 (0.92%)	0 (0%)
Non codeable occupations	2 (0.41%)	0 (0%)	2 (0.36%)

Just fewer than 70% of the occupations named by the girls as occupations that women cannot do fell within Holland's Realistic typology, while nearly a fifth fell into of the Social typology. Just over five percent of the occupations named fall into Holland's Investigative typology, while less than one percent fell into each of the Artistic and Enterprising typologies. None of the girls named Conventional

types as occupations that women cannot do. Thus the majority of participants of both genders do not expect women to work in occupations that fall into Holland's Realistic typology.

Table 14 presents the frequencies and percentages of the five occupations that were most frequently named by all participants as occupations that women cannot do according to Holland's typology of occupations and the classification of status levels.

Table 14

Most Frequently Named Occupations that Women Cannot Do according to Holland's Typology and Status Level: Total Sample

Occupation	Typology	Status	Total N=(488)
1. Gardener	Realistic	Semi-skilled	65 (12.72%)
2. Builder	Realistic	Skilled	64 (12.52%)
3. Police officer	Social	Middle	29 (5.68%)
4. Mechanic	Realistic	Skilled	28 (5.50 %)
5. Engineer	Investigative	High	18 (3.52%)

The participants named 71 different occupations that women could not do (see Appendix D for a full list of these occupations). The five most frequently named occupations can all be considered as traditional male occupations. Of these occupations three fell within Holland's Realistic typology, one fell into Holland's Social typology and the remaining occupation fell into Holland's Investigative

typology. Of the five occupations one falls into the high status level, one in the middle status level, two in the skilled status level and one in the semi-skilled status level.

The five occupations that the boys considered as most unsuitable for women are presented in Table 15. Although there were some similarities to the previous table's results with regards to the occupations the boys named as unsuitable for women there were also differences.

Table 15

Most Frequently Named Occupations that Women Cannot Do according to Holland's Typology and

Status Level: Boys

Occupation	Typology	Status	Boys n=(211)
1. Gardener	Realistic	Semi-skilled	30 (13.82%)
2. Builder	Realistic	Skilled	24 (11.06%)
3. Mechanic	Realistic	Skilled	12 (5.53%)
Engineer	Investigative	High	12 (5.53%)
4. Security guard	Social	Middle	8 (3.84%)
5. Police officer	Social	Middle	7 (3.23%)

The boys named 'gardener' as the occupation that women would be least able to do, with just over 13% indicating this. 'Builder' was named as the second least suitable occupation for women as indicated by a tenth of the responses. The remaining occupations named all represented low percentages.

Of these occupations three fell into Holland's Realistic typology, one fell into Holland's Investigative typology and the remaining two occupations fell into Holland's Social typology. Of the five most frequently named occupations that women cannot do one fell into the high status level, two in the middle status level, another two in the skilled status level and one in the semi-skilled status level.

Table 16 represents the five least likely occupations that women could follow according to the girls. Just under 14% of the responses indicated that the girls were of the opinion women were least likely to become 'builders,' with a little over a tenth of the responses indicating that they also did not consider 'gardener' as a suitable occupation for women.

Table 16

Most Frequently Named Occupations that Women Cannot Do according to Holland's Typology and

Status Level: Girls

Occupation	Typology	Status	Girls n=(277)
1. Builder	Realistic	Skilled	40 (13.47%)
2. Gardener	Realistic	Semi-skilled	35 (11.90)
3. Police officer	Social	Middle	22 (7.48%)
4. Mechanic	Realistic	Skilled	16 (5.40%)
5. Painter	Realistic	Unskilled	14 (5.05%)

The remaining occupations named all represented low percentages. The majority of the occupations that were named as occupations that women could not do fell within Holland's Realistic typology of occupations, while only one occupation named by the girls fell into Holland's Social typology. The occupations named fell within the following status levels: one fell into the middle status level, two in the skilled status level, one in the semi-skilled status level and the remaining occupation fell into the unskilled status level.

The majority of the participants were of the opinion that women could not work in Realistic occupations such as 'gardener', 'builder' and 'mechanic' which fell into the skilled and semi-skilled status levels. This section of the chapter has explored the types of occupations that the participants perceive as suitable or unsuitable for women. The following section will focus on the occupations that men can and cannot do.

Occupations that men can do

Table 17 presents the frequencies and percentages of the gender stereotypes that all participants hold concerning the types of occupations that men can do. Of the 274 participants, one female participant responded "men can do any occupation". Over half of the occupations named by all participants fell into Holland's Realistic typology. This result reflects the reverse findings presented in Table 13 where participants indicated that women could not do Realistic types of occupations. A quarter of the occupations named fell within Holland's Social typology, while just over a tenth indicated that men were suited to occupations that fell into Holland's Investigative typology. Less than three percent of the occupations named fell into Holland's Enterprising and Artistic typologies while none of the participants named Conventional types of occupation as suitable for men.

Table 17

Occupations Men Can Do according to Holland's Typology and Gender

Holland's typology	Total Responses (N=743)	Gender	
		Boys (n=333)	Girls (n=410)
Realistic	451 (60.62%)	196 (58.90%)	255 (62.04%)
Investigative	95 (12.77%)	49 (14.72%)	46 (11.20%)
Artistic	6 (0.81%)	3 (0.90%)	3 (0.73%)
Social	181 (24.33%)	80 (24.02%)	101 (24.57%)
Enterprising	8 (1.08%)	5 (1.50%)	3 (0.73%)
Conventional	0 (0%)	0 (0%)	0 (0%)
Non code able occupations	2 (0.27%)	0 (0%)	2 (0.49%)

In terms of the boys' responses, over half were of the opinion that men could work primarily in Realistic types of occupations. A quarter of the responses indicated that Social types of occupations were also suitable for men, while less than 15% indicated that Investigative occupational types were appropriate for men as well. Fewer than three percent of the responses indicated that occupations in the Artistic and Enterprising typologies were suitable for men while no participants selected Conventional types of occupations for men.

Just over 60% percent of the girls' responses indicated they were in agreement with the boys as they also named Holland's Realistic typology as the most suitable occupational typology for men. A further quarter of the responses indicated that men could do Social types of occupations, with just over a tenth indicating that Investigative types of occupations were also suitable for men. Less than two percent of the responses indicated that Artistic and Enterprising occupational types were suitable for men and not one participant named an occupation within Holland's Conventional typology as suitable for men.

Table 18 lists five specific occupations named by the total sample as most suitable for men according to Holland's typology and status levels. Appendix E provides a more detailed list of the occupations named. The two most popular occupations named for men were 'builder' and 'gardener,' both of which fall within Holland's Realistic typology with the former categorised as a semi-skilled and the latter an unskilled status level occupation. This finding corresponds with 'gardener' and 'builder' being named as two of the least suitable occupations for women. The third most popular occupation named for men was 'police officer'. The remaining occupations named all reported low percentages. Thus four of the occupations named as suitable occupations for men fell within Holland's Realistic typology, two fell into the Social typology and one fell into the Investigative typology. Furthermore, two of the occupations named were in the high status levels, one fell into the middle status level, three into the skilled status level and one into the unskilled status level.

Table 18

Most Frequently Named Occupations that Men Can Do according to Holland's Typology and StatusLevel: Total Sample

Occupation	Typology	Status	Total (n=743)
1. Builder	Realistic	Skilled	80 (10.75%)
2. Gardener	Realistic	Semi-skilled	79 (10.62%)
3. Police officer	Social	Middle	56 (7.53%)
4. Doctor	Investigative	High	44 (5.91%)
Mine worker	Realistic	Skilled	44 (5.91%)
5. Mechanic	Realistic	Skilled	32 (4.30%)
Teacher	Social	High	32 (4.30%)

Table 19 represents the frequency counts and percentages for the five occupations chosen by boys as being most suitable for men. The boys named 'builder' and 'gardener' as the most suitable occupations for men, with a fifth of the responses indicating these two occupations. Just over six percent of the responses placed 'police officer' in third position, while the remaining occupations all reported low percentages. Four of the five occupations that were named as suitable for men fell into the Realistic typology, two fell into the Social typology and the remaining one fell into Holland's Investigative typology of occupations. With regards to the status levels of the occupations that the boys perceived as

being most suitable for men, two were classified as high status level, one as middle status level, three as skilled status level and one as unskilled status level occupations.

Table 19

Most Frequently Named Occupations that Men Can Do according to Holland's Typology and Status

Level: Boys

Occupation	Typology	Status	Boys (n=333)
1. Builder	Realistic	Skilled	34 (10.21%)
2. Gardener	Realistic	Semi-skilled	31 (9.31%)
3. Police officer	Social	Middle	22 (6.61%)
4. Doctor	Investigative	High	19 (5.71%)
Mine worker	Realistic	Skilled	17 (5.12%)
5. Mechanic	Realistic	Skilled	14 (4.20%)
Teacher	Social	High	14 (4.20%)

The results for the girls differed from the boys and are presented in Table 20 according to frequency counts and percentages for the five occupations that are most suitable for men.

Table 20

Most Frequently Named Occupations that Men Can Do according to Holland's Typology and StatusLevel: Girls

Occupation	Typology	Status	Girls (n=410)
1. Gardener	Realistic	Semi-skilled	48 (11.70%)
2. Builder	Realistic	Skilled	46 (11.19%)
3. Police officer	Social	Middle	34 (8.27%)
4. Mine worker	Realistic	Skilled	27 (6.57%)
5. Doctor	Investigative	High	25 (6.08%)

'Gardener' and 'builder' were deemed as the two most suitable occupations for men as demonstrated by just over a fifth of the responses. 'Police officer' was named as the third most popular choice for men, receiving a little over eight percent of the responses. The remaining occupations named all reported low percentages. Of the occupations named three fell in Holland's Realistic typology, and the remaining two each fell within the Social and Investigative typologies. One occupation fell in the high status level, one in the middle status level, two in the skilled status level while the most popular occupation fell in the semi-skilled status level.

In summary, the participants indicated that they perceived men as more likely to work in occupations that fell into Holland's Realistic typology, with four of the careers mentioned falling into this category, namely 'builder', 'gardener', 'mineworker' and 'mechanic'. The second most popular occupational typology named by the participants for men were occupations that fell into Holland's

Social typology, with two of the most popular occupations falling into this typology, namely ‘police officer’ and ‘teacher’. Furthermore, the majority of the most popular occupations named fell within the skilled status levels, followed by the high and middle status levels.

Occupations that men cannot do

This section of the chapter focuses on the types of occupations that the participants perceive as unsuitable for men. Table 21 represents the frequency counts and percentages that all participants named as occupations that men cannot do according to Holland’s typology and status level. Appendix F provides a comprehensive list of occupations named by the participants. Nine boys and 21 girls responded that they “do not know” what occupations men could not do. Half of the occupations named fall within Holland’s Social typology, while a third fall into Holland’s Realistic typology. Less than five percent of the occupations named fell into the Enterprising and Artistic typologies and less than one percent of the participants named occupations that fell into Holland’s Conventional and Investigative typologies.

Similar to the results for the total sample, half of the occupations that the boys named fell within Holland’s Social typology, while a third fell into Holland’s Realistic occupational typology. Five percent of the named occupations fell within Holland’s Investigative, Artistic and Enterprising typologies of occupations. None of the boys named Conventional types of occupations as unsuitable for men.

Table 21

Occupations Men Cannot Do according to Holland's Typology and Gender

Holland's Typology	Total Responses (N=387)	Gender	
		Boys (n=175)	Girls (n=212)
Realistic	148 (33.94%)	69 (36.32%)	79 (32.11%)
Investigative	1 (0.23%)	1 (0.53%)	0 (0%)
Artistic	8 (1.83%)	3 (1.58%)	5 (2.03%)
Social	219 (50.23%)	98 (51.58%)	121 (41.19%)
Enterprising	9 (2.06%)	4 (2.11%)	5 (2.03%)
Conventional	2 (0.46%)	0 (0%)	2 (0.81%)

The results for the girls differed slightly from the boys as 40% of the occupations named by girls fell within Holland's Social typology, while a third fell into Holland's Realistic occupational typology. Artistic and Enterprising types of occupations were named infrequently with these typologies receiving less than five percent of the responses, while less than one percent of the occupations fell into Holland's Conventional typology of occupations. None of the girls named Investigative types of occupations.

Table 22 provides a summary of the five occupations that the participants specifically named as least suitable for men, according to Holland's typology, status level and gender.

Table 22

Most Frequently Named Occupations that Men Cannot Do according to Holland's Typology and StatusLevel: Total Sample

Occupation	Typology	Status	Total (N=386)
1. Domestic worker	Social	Unskilled	84 (19.27%)
2. Nurse	Social	Middle	53 (12.16%)
3. Cook	Realistic	Skilled	35 (8.03%)
Kitchen worker	Realistic	Unskilled	35 (8.03%)
4. Cleaner	Social	Unskilled	25 (5.73%)
5. Dish washer	Realistic	Unskilled	20 (4.59%)

The specific occupations that the participants named as unsuitable for men seem quite similar in that they may all be considered as traditionally female occupations. Furthermore, four of the five occupations named are occupations where some form of domestic cleaning occurs. A fifth of the responses designated 'domestic worker' as the occupation that is least suitable for men, while the second least suitable occupation was 'nurse' with just over a tenth of the responses indicating this. 'Cook' and 'kitchen worker' were in third place with just under a fifth of the responses. The remaining occupations named all reported low percentages. The occupations named as unsuitable for men were equally distributed amongst Holland's Social and Realistic occupational typologies. The majority fell into the unskilled status level while the remaining two occupations fell into the middle and skilled status levels.

Table 23 represents the frequency counts and percentages for the five most frequently chosen occupations by the boys as being unsuitable for men.

Table 23

Most Frequently Named Occupations that Men Cannot Do according to Holland's Typology and Status

Level: Boys

Occupation	Typology	Status	Boys (n=178)
1. Domestic worker	Social	Unskilled	39 (20.53%)
2. Nurse	Social	Middle	21 (11.05%)
3. Cook	Realistic	Skilled	17 (8.95%)
4. Kitchen worker	Realistic	Unskilled	16 (8.42%)
5. Cleaner	Social	Unskilled	12 (6.32%)

The boys named 'domestic worker' as the occupation that was least suitable for men with a fifth of the responses indicating this. Just over a tenth of the responses indicated that boys perceived 'nurse' as an occupation that men could not do. The remaining occupations named all reflected low percentages. Three of the occupations that were named as unsuitable for men fell in Holland's Social typology while two occupations fell in the Realistic typology. Three unskilled status level, one middle status level and one skilled status level occupations were named as unsuitable for men.

Table 24 provides the frequency counts and percentages for the five occupations that the girls perceived as most unsuitable for men.

Table 24

Most Frequently Named Occupations that Men Cannot Do according to Holland's Typology and StatusLevel: Girls

Occupation	Typology	Status	Girls (n=208)
1. Domestic worker	Social	Unskilled	45 (18.29%)
2. Nurse	Social	Middle	32 (13.01%)
3. Kitchen worker	Realistic	Unskilled	19 (7.72%)
4. Cook	Realistic	Skilled	18 (7.32%)
5. Cleaner	Social	Unskilled	13 (5.28%)
Dish washer	Realistic	Unskilled	13 (5.28%)

A little less than a fifth of their responses indicated that they believed that men could not be 'domestic workers', while over a tenth of the responses indicated that men could not be 'nurses'. Just under a fifth of the responses indicated that girls believed that men could not be 'cooks' or 'kitchen workers'. The remaining occupations named reflect low percentages. The occupations named fell equally within Holland's Realistic and Social occupational typologies. With regards to status levels, four fell in the unskilled status level, one in the skilled status level and one occupation fell in the middle status level.

In summary, the results indicate that many of the occupations that men cannot do fell into Holland's Social typology of occupations. It is interesting to note that the specific occupations named in this regard fell within the traditional roles that women hold, such as cooking and cleaning. The majority

also fell into the unskilled status level, with only one being classified as a middle status level occupation. Furthermore, of the six occupations named half fell into Holland's Realistic and Social occupational typologies.

The results indicate that both boys and girls agree that women can do occupations that fall into Holland's Social typology such as 'domestic worker', 'nurse' and 'teacher', while men cannot do occupations that fall into this typology. Furthermore, it is indicated that men can work in occupations that fall into Holland's Realistic typology, such as 'builder' and 'gardener', while women cannot do these types of occupations. From these results it can be seen that both the boys and girls gender stereotype occupations. The following subsection reports on occupations that are perceived as suitable for both gender groups.

Occupations suitable for both men and women

This section focuses on occupations that the participants perceive as suitable for both genders. Participants were invited to write down as many occupations as they could think of in which both men and women could work. Table 25 presents the frequency counts and percentages of occupations named as fitting both men and women according to Holland's typology and gender for the total sample as well as the boys and girls. Of the 274 participants, eight males and thirteen females responded that they did not know what occupations males and females could both do, while one male and two females responded that both men and women "can do everything."

Table 25

Occupations that Men and Women Can Do according to Holland's Typology and Gender

Holland's typology	Total Responses (N=546)	Gender	
		Boys (n=237)	Girls (n=309)
Realistic	148 (25.96%)	64 (26.02%)	84 (25.93%)
Investigative	103 (18.07%)	44 (17.89%)	59 (18.21%)
Artistic	19 (3.33%)	10 (4.07%)	2.78% (9)
Social	245 (42.98%)	107 (43.50%)	138 (42.60%)
Enterprising	20 (3.51%)	7 (2.85%)	13 (4.01%)
Conventional	11 (1.93%)	5 (2.03%)	6 (1.85%)

The typology that the participants considered to be most suitable for both males and females is Holland's Social typology, with more than two fifths of the total sample's responses indicating this. A quarter of the responses indicated that both men and women can do Realistic types of occupations while just under a fifth of the responses suggest that Investigative types of occupations can be done by both genders. Less than a tenth of the responses indicated that Holland's Artistic, Enterprising and Conventional occupational typologies could be performed by both men and women.

Just over 40% of the boys' responses indicated that both men and women could do occupations that fell within Holland's Social typology, while another quarter of the responses indicated that occupations in Holland's Realistic typology were suitable for both genders. Less than a fifth of the responses indicated Investigative occupational types as suitable for both genders. Fewer than five percent of the responses indicated that men and women could do Artistic types of occupations, with the remaining five percent of responses indicating that Enterprising or Conventional occupational types were inappropriate for both genders.

The girls' responses were similar to the boys. Two-fifths of their responses indicated that both genders can do Social types of occupations, and another quarter of the responses indicated that both genders can do Realistic types of occupations. Slightly less than a fifth of the responses indicate that men and women can do occupations that fall within Holland's Investigative typology. The remaining tenth of the responses indicate that the girls did not believe that men and women can do occupations that fall within Holland's Enterprising, Artistic and Conventional occupational typologies. Both the boys and the girls' responses indicate that occupations that fell within Holland's Social typology are most suitable for men and women.

Table 26 describes the five occupations most frequently named by the total sample as being suitable for both genders. For a comprehensive list of these occupations see Appendix G.

Table 26

Most Frequently Named Occupations that Men and Women Can Do According to Holland's Typology and Status Level: Total Sample

Occupation	Typology	Status	Total (N=546)
1. Teacher	Social	High	93 (16.32%)
2. Doctor	Investigative	High	68 (11.93%)
3. Police officer	Social	Middle	50 (8.77%)
4. Nurse	Social	Middle	36 (6.32%)
5. Cook	Realistic	Skilled	29 (5.09%)

A little more than a fifth of the responses indicated that the participants considered 'teaching' as an occupation that would suit both men and women with 'doctor' being named second most often and receiving just over a tenth of the responses. Together 'police officer', 'nurse' and 'cook' received almost a fifth of the responses, indicating that these occupations were also considered as suitable for men and women. It is worth noting that a number of the occupations named were also selected as occupations that men cannot do such as 'nurse' and 'cook'. Three of the occupations named as being suitable for both genders fell within Holland's Social typology, while the remaining two fell into the Investigative and Realistic occupational typologies. Two occupations fell in the high status level, two in the middle status level and one in the skilled status level.

Table 27 presents the frequency counts and percentages for the five most suitable occupations for both genders according to the boys.

Table 27

Most Frequently Named Occupations that Men and Women Can Do according to Holland's Typology and Status Level: Boys

Occupation	Typology	Status	Boys (n=237)
1. Teacher	Social	High	42 (17.07%)
2. Doctor	Investigative	High	26 (10.57%)
3. Police officer	Social	Middle	24 (9.76%)
4. Lawyer	Investigative	High	13 (5.48%)
5. Nurse	Social	Middle	12 (4.88%)

A little less than a fifth of the responses indicated that the boys thought that 'teacher' was the best occupation for both men and women to do, while just over a tenth of the responses indicated that 'doctor' was another occupation that both genders could do. Just under a tenth of the responses indicated that both men and women could be 'police officers', while a little more than five percent of the responses indicated that both genders could be 'lawyers'. The fifth most suitable occupation for males and females was 'nurse' which represented less than five percent of the responses. Three occupations fell into Holland's Social typology while the remaining two fell into the Investigative occupational

typology. Furthermore, three occupations fell within the high status level with the remaining two being categorised as middle status level occupations.

Table 28 represents the frequency counts and percentages for the five most suitable occupations for both genders according to the girls.

Table 28

Most Frequently Named Occupations that Men and Women Can Do according to Holland's Typology and Status Level: Girls

Occupation	Typology	Status	Girls (n=309)
1. Teacher	Social	High	51 (15.74%)
2. Doctor	Investigative	High	42 (12.96%)
3. Police officer	Social	Middle	26 (8.02%)
4. Nurse	Social	Middle	24 (7.41%)
5. Cook	Realistic	Skilled	21 (6.48%)

As with the boys, the girls' responses indicated that they thought 'teaching' and 'doctor' were the most suitable occupations for both genders, with just under a third of the responses indicating this. 'Police officer' received just under a tenth of the responses and was considered as the third most likely occupation to suit both genders. The occupations of 'nurse' and 'cook' fell into fourth and fifth place with less than 15% of all responses combined. Of the five most suitable occupations for both genders

three fell into Holland's Social occupational typology, while the remaining two fell within the Investigative and Realistic typologies. With regards to the status levels of the occupations, two fell into the high status level, another two fell in the middle status level and one fell in the skilled status level.

In summary, the participants indicated that the types of occupations that both men and women could do, fell mainly into Holland's Social and Realistic occupational typologies and high and middle status levels. The most popular occupational choices for men and women were 'teacher' and 'doctor.' This was true for the total sample as well as for the boys and girls. This reflects the results presented in Table 6, as 'teacher' and 'doctor' were named as occupations that both boys and girls aspired to.

Occupational gender stereotyping of specific occupations

As part of aim two, participants were also provided with a list of occupations for which they were required to indicate whether each occupation is best suited for a male, female or both. The results of how the participants gender-stereotype an occupation are presented in Table 29. The results are discussed according to each gender group.

Over 90% of the boys indicated that the occupation of 'electrician' was best suited to men, with just over five percent indicating that it was an occupation that was suited to both men and women and less than two percent selecting it as an occupation for women only. The majority (over 80%) indicated that 'medical scientist' was an occupation suited to both genders, with a tenth indicating that only men could do it and just over five percent indicating that only women could do it. While just under half of the boys indicated that being a 'detective' was mostly suited to men another 47% indicated that it was an occupation suited to both genders and less than five percent were of the opinion that only women could be detectives. 'Dentist' was also a popular choice as an occupation that both men and woman can do with just under three-quarters of the boys indicating this, an additional quarter were of the opinion that it was best suited to men with less than five percent indicating that it was suited to women only. Similar to

the results for 'detective', just under half of the boys were of the opinion that only men could be 'jewellers', another half indicated it was suited to men and women while the remaining six percent elected it as an occupation best suited to women. 'Reporter' was another occupation viewed as being suitable for both genders, with just over 80% indicating this, a small percentage (slightly over eight percent) indicated that it was best suited to women and the remaining seven percent elected it as an occupation that only men could do. It is worth noting that over half of the boys elected 'sports coach' as an occupation suited to both genders, just over 40% indicated that only men could do it while only one boy indicated that it was an occupation that suited women best. Just under ninety-five percent of the boys indicated that 'teacher' was an occupation that both men and women could do, five percent elected it as an occupation for women only with a single one boy indicating that it was best suited to men.

Table 29

Specific Occupations that are Stereotyped according to Gender

OCCUPATION	GENDER	Men can do it	Women can do it	Both can do it
Electrician	Boys	107 (91.45%)	2 (1.71%)	8 (6.84%)
	<u>Girls</u>	132 (84.07%)	1 (0.64%)	24 (15.29%)
Medical scientist	Boys	12 (10.26%)	8 (6.84%)	97 (82.90%)
	<u>Girls</u>	11 (7.01%)	12 (7.64%)	133 (84.71%)
Detective	Boys	57 (48.72%)	5 (4.27%)	55 (47.01%)
	<u>Girls</u>	63 (40.13%)	6 (3.82%)	88 (56.05%)
Dentist	Boys	29 (24.79%)	4 (3.42%)	84 (71.79%)
	<u>Girls</u>	53 (33.76%)	10 (6.37%)	93 (59.24%)
Jeweller	Boys	53 (45.30%)	8 (6.84%)	56 (47.86%)
	<u>Girls</u>	61 (38.85%)	17 (10.83%)	79 (50.32%)
Reporter	Boys	9 (7.69%)	10 (8.55%)	98 (83.76%)
	<u>Girls</u>	8 (5.09%)	20 (12.74%)	129 (82.17%)
Sports coach	Boys	51 (43.59%)	1 (0.85%)	65 (55.56%)
	<u>Girls</u>	80 (50.95%)	4 (2.55%)	73 (46.50%)
Teacher	Boys	1 (0.85%)	6 (5.13%)	110 (94.02%)
	<u>Girls</u>	3 (1.91%)	10 (6.37%)	144 (91.72%)
Bank manager	Boys	42 (35.90%)	6 (5.13%)	69 (58.97%)
	<u>Girls</u>	44 (28.02%)	6 (3.82%)	107 (68.16%)
Lawyer	Boys	30 (25.64%)	1 (0.85%)	86 (73.50%)
	<u>Girls</u>	18 (11.46%)	11 (7.01%)	128 (81.53%)
Prison officer	Boys	77 (65.81%)	9 (7.70%)	31 (26.49%)
	<u>Girls</u>	95 (60.51%)	10 (6.37%)	52 (33.12%)
Accountant	Boys	10 (8.55%)	11 (9.40%)	95 (81.20%)
	<u>Girls</u>	13 (8.28%)	20 (12.74%)	124 (78.98%)

More than half the boys indicated that 'bank manager' was an occupation that both men and women could do while a little over a third selected it as an occupation for men only. The remaining five percent indicated that they were of the opinion that it was an occupation that only women could do. A little over 70% of the boys elected 'lawyer' as an occupation suited to both genders, a quarter indicated that it suited men best while a single boy indicated that it was an occupation that only women could do. The boys considered being a 'prison officer' as an occupation that was most suited to men, with just over two thirds indicating this. A little over a quarter elected it as an occupation that men and women could do while just over seven percent were of the opinion that it was best suited to women. The majority (80%) of boys were of the opinion that both men and women could be an 'accountant', the remaining twenty percent were split in their opinion that only men or only women could do this occupation. Thus the boys tended to gender stereotype some occupations more than others.

Although the results indicate that there are some similarities between the boys and the girls there also seem to be differences. Over 80% of the girls indicated that 'electrician' was an occupation best suited to men, another 15% were of the opinion that it was suited to both genders and less than one percent indicated that only women could do it. Over 80% of the girls indicated that 'medical scientist' was an occupation suited to both genders, with less than a fifth indicating that either only men or only women could do it. More than half of the girls were of the opinion that the occupation of detective was suitable for both genders, another forty percent indicated that it was most suited to men while just over three percent indicated that it was best suited to women. A third of the girls indicated that they were of the opinion that 'dentist' was an occupation mostly suited to men, about six percent indicated that it was best suited to women, while a little under 60% indicated that both men and women could be 'dentists'.

Half of the girls elected 'jeweller' as an occupation suited to both genders, just over a third indicated that it was best suited to men and the remaining ten percent thought it was best suited to

women. The girls held similar opinions to the boys with regards to ‘reporter’ with just over 80% electing it as an occupation for both genders. Percentage wise more girls than boys were of the opinion that it was suitable for women only as over a tenth of the girls indicated this, the remaining five percent elected it as an occupation mostly suited to men. Half of the girls were of the opinion that being a ‘sports coach’ was an occupation suited to men only, just less than half elected it as an occupation that men and women could do, while under three percent indicated that it was mostly suited to women. The girls responded similarly to the boys with regards to the occupation of ‘teacher’. Just over ninety percent indicated that ‘teacher’ was an occupation that both men and women could do, a little over five percent elected it as an occupation for women and less than two percent indicated that it was best suited to men. A little more than two thirds of the girls selected ‘bank manager’ as an occupation that both men and women can do, with just over a quarter selecting it as an occupation that only men can do. The remaining four percent indicated it was an occupation that only women could do. Just over 80% of the girls indicated that ‘lawyer’ was an occupation that both men and women could do, a tenth responded that it was best suited to men while seven percent were of the opinion that only women could be ‘lawyers’. Two thirds of the girls responded that ‘prison officer’ was an occupation best suited to men, a third indicated that both genders could do it and just over six percent elected it as an occupation that only women could do. The girls responded similarly to the boys with regards to the occupation of ‘accountant’ with a little less than eighty percent indicating that it was suitable for both genders. The remaining twenty percent were split in their opinions with eight percent indicating that only men could be accountants and 12% electing it as an occupation for women only.

The above results demonstrate that the occupations that were selected as appropriate for both genders (by the boys and the girls) were ‘teacher’, ‘medical scientist’, ‘reporter’, ‘lawyer’ and ‘accountant’. It also seems as if both boys and girls acknowledge that most occupations could be done

by both genders; nonetheless there is still a level of occupational gender stereotyping that exists for some occupations.

The occupations that are being gender stereotyped by the participants are generally those that are considered as traditionally male or female occupations. It seems as if both boys and girls prefer traditional male occupations for boys. With regards to which gender group is stereotyping occupations, it appears as if there is an equal split, while boys seem more likely to accept girls into traditionally male occupations than the girls are in receiving boys into traditionally female occupations.

Overview of Results

Overall the results indicate that both boys and girls mostly aspire to Investigative and Social types of occupations. In general, both boys and girls aspire to high status level occupations with slightly more high status level occupations named by the girls than the boys, and with boys naming more middle status level occupations than the girls. Furthermore, it seems as though boys are slightly more likely to accept girls into traditional masculine occupations than the girls are likely to receive boys into traditional feminine occupations.

This chapter has explored and reported the participants' responses. The next chapter will discuss the data with specific reference to theory and previous research. Furthermore, the limitations and recommendations for future research will be considered.

CHAPTER 6

DISCUSSION AND CONCLUSION

The results of the present study were reported in Chapter Five. In this chapter the results are discussed in relation to human development theory, career development theory and previous career research. Furthermore, conclusions are drawn and the limitations of the present research, as well as recommendations for future research, are explored. The primary aim of this study was to describe and compare the occupational aspirations and occupational gender stereotyping of Xhosa-speaking South African senior primary school learners. More specifically, the aims were to:

- Describe and compare the occupational aspirations, in terms of their typology and status level, of male and female Xhosa-speaking senior primary school learners, and
- Describe and compare the occupational gender stereotyping, in terms of their typology and status level, of male and female Xhosa-speaking senior primary school learners.

Given the fact that no career development research has been conducted on Xhosa-speaking senior primary school learners within South Africa to date, the present research presents the first attempt to provide some initial baseline information.

The discussion of the results of the present study is organised according to the aims of the study. Occupational aspirations will be discussed first followed by gender stereotyping of occupations, the limitations of the study and finally the recommendations for future research in this area.

Occupational Aspirations

All the participants in the present study were able to name more than one occupation that they aspired to. The majority of the occupations aspired to fell within Holland's Social typology, followed by

Investigative types of occupations. An examination of the occupations that boys aspired to indicates a trend towards Investigative types of occupations, while the girls aspired mostly to occupations that fell within Holland's Social typology. More than 80% of the total sample aspired to occupations that fell into the high status level.

When the participants selected their favourite occupational aspiration the majority fell within Holland's Investigative typology of occupations. When examining the favourite occupational aspirations of boys and girls, both genders named Investigative types of occupations more frequently than any other occupation. Just over half of the boys' favourite occupational aspirations fell into the Investigative typology, while just under half of the girls indicated that their favourite occupational aspiration also fell into this typology. When selecting their favourite occupational aspiration the majority of the total sample aspired to high status level occupations, followed by middle status level occupations. Similar results were indicated for both genders in terms of status levels, with three-quarters of the boys' favourite occupational aspirations and more than 80% of the girls' favourite occupational aspirations falling within the high status level. The most frequently stated occupational aspirations fell into a narrow range of professions that required some form of tertiary education (i.e., 'doctor', 'lawyer', 'teacher', 'social worker' and 'nurse'). As the present participants belong to the lower socioeconomic status group, it is likely that they will experience considerable difficulty in financing a tertiary education that would equip them with the ability to achieve their occupational aspirations. Therefore, across the entire sample, the majority of the participants aspired to occupations of a higher level than they are likely to achieve. These results will now be examined in terms of existing developmental and career developmental theories as well as in terms of previous career research.

The participants in the present study were between 10 and 14 years of age and could thus be considered to be in transition from Erikson's (1950,1985) fourth stage of "Industry versus Inferiority"

(spanning from the age of 6 through to 11 years) to his fifth stage of “Identity versus Role-Confusion” (spanning from 11 to 18 years of age) of psychosocial development. Thus, the present participants should by this age range have developed a sense of industriousness and achievement through producing, organising and applying information, and placing objects into categories. They should also be beginning to define their interests in terms of career choices, further education, trade skills and raising a family. In essence children of this age range are finding out who they are and where they fit into society. The entire sample of present participants were able to express a number of occupational aspirations and select a favourite aspiration from this list. They are thus beginning to define their personal interests and abilities in terms of future career choices. It is through this that they are able to project themselves into adult roles and to form an idea of who they might become. Thus, Erikson’s developmental theory is supported by the findings of the present study.

Within the context of Piaget’s (1972, 1977) cognitive development theory, the participants of the current study are in transition from his third stage of “Concrete Operations” (extending from age 7 to 11 years of age) to his fourth stage of “Formal Operations” (starting at around the age of 11 years and reaching completion during adulthood). It would be expected, therefore, that the present participants ought to be projecting themselves into future adult roles, although the future options that they are considering may not have a basis in reality. They should no longer be restricted by what is physically present or by previous experience but should be able to imagine the totality of a situation and postulate on how it could be different. The participants in the present study have demonstrated that they are able to think about their occupational future and thus to project themselves into adult roles. They also selected their favourite occupational aspiration indicating that their level of cognitive development is such that they are beginning to think about hypothetical situations that may differ from the reality within which they find themselves. None of the parents of the present participants work in the types of

occupations that the participants aspire to. The participants are therefore beginning to look at other career options for themselves even though they may not always be realistic.

Although Piaget emphasised cognitive development as being an important factor in making a career choice, he attributed this developmental task to adolescence. The findings of the present study indicate that occupational awareness and the ability to make a tentative career choice is present in children in middle childhood and early adolescence, which is earlier than predicted by Piaget. However, overall the findings of the present study appear to be supportive of human development theory and the concept that development occurs in distinct stages.

The present study also offers support for both Super (1990) and Gottfredson's (1981, 1996) career theories, both of whom maintain that career development begins in early childhood. In the context of Super's theory, the participants in the present study were in the Growth stage of development, a stage in which they begin to identify with key figures in their environments. Super's (1990) theory is thus supported by the present study that found, for example, that a large number of participants aspired to becoming 'doctors', 'teachers', 'social workers', 'police officers' and 'nurses'. The participants of the present study live in an environment where the adults who are most visible are doctors, teachers, social workers, police officers and nurses. Furthermore, the black community views an individual who works in one of the above-mentioned occupations with a certain level of prestige (Watson, & Stead, 1993).

The present study also supports the career developmental theory of Gottfredson (1981, 1996) as over 80% of the participants aspired to occupations that fell within the high socioeconomic status levels, with another 10% aspiring to occupations in the middle status levels. In terms of Gottfredson's theory the participants in the present study are in their third stage of Orientation to Social Valuation. In this stage children begin to recognise the social symbols of prestige and class and are more influenced by social class than by their gender (Gottfredson, 1996). Gottfredson's description of this stage could

therefore provide an explanation of why the socioeconomic status of the present participants have not notably impacted on the status levels of their occupational aspirations. The findings of the present study will now be discussed with regards to previous research findings.

The results of the present study are both consistent and inconsistent with aspects of extant research in the field of career development of children. The findings of the present study support those of McMahon et al. (1999) who indicated that career development occurred for all their participants (ranging between 10 years six months to 12 years 11 months). This was evidenced by their ability not only to list occupations that they would like to do but also to identify a favourite occupation from this list.

Most of the participants in the present study aspired to Investigative and high status level occupations when asked to identify their favourite occupational aspiration. However, previous international career development studies have found that children in this age group generally aspire to Social and high status level occupations regardless of whether they named a number of occupational aspirations or only their favourite occupational aspiration (Bobo et al., 1998; Brown & Hackett, 2002; Helwig, 1998abc; McMahon & Patton, 1997; Phipps, 1995). Previous South African career development studies also found that children and adolescents generally aspired to occupations falling into the Social typology (Dean, 2001; Horn, 1995; Watson et al., 1997; Westaway, 1983). However, the previous South African studies not only focussed on different developmental stages but also examined a different cultural and/or language group compared to the present study and this could be one of the possible reasons for the contradictions in the findings.

The specific types of occupations (i. e., doctor, lawyer, teacher, social worker, police officer and nurse) that the total sample aspired to can be broadly described as the helping professions (Watson, Foxcroft, & Stead, 1997). This is consistent with previous research findings that have demonstrated that

the majority of black South African adolescents aspire to the helping professions, with few aspiring to occupations in the engineering, technical and information technology fields (Cherian, 1991; Nel & Mkhabela, 1987; Watson et al., 1997). However, in contradiction to such research, the results from Grobler's (2000) study appear to support the findings of the present study. Grobler's study found that black South African pre-primary school children who fell predominantly into the lower socioeconomic status level, aspired more to Investigative types of occupations. Furthermore, these children also mostly aspired to high status level occupations. In contradiction to the present findings and those of Grobler, previous international studies have found that black children devalue their own abilities and aspire to lower status occupations than white children do (Clark, 1965; Cook, et al., 1996; Leung, 1995).

The fact that the girls appeared to differ from the boys with regards to both the types and status levels of the occupations they aspired to is consistent with previous international research. For instance, both Bobo et al., (1998) and Gottfredson (1981, 1996) established that as children mature, they aspire less to gender-stereotyped occupations and base their occupational aspirations more on the status level of the occupations. Several researchers have found that this is especially true for girls who seem to ascribe to higher status traditionally male occupations (Bobo et al., 1998; Helwig, 1998b; Liben et al., 2001; Phipps, 1995; Sandberg et al., 1987).

To date no research has been conducted on black senior primary school children in South Africa. In their studies of pre-primary school children both Dean (1998, 2001) and Grobler (2000) established that a higher percentage of boys aspired to high status occupations, whilst a higher percentage of girls aspired to middle status occupations. This is in contradiction with the findings of the present study where a higher percentage of girls aspired to high status occupations and may be ascribed to the age and developmental stage of the present participants (Liben et al., 2001). The previous research by Dean (2001) and Grobler (2000) focussed on children who were younger than the present participants.

Research has shown that as girls mature they tend to aspire more to occupations that are perceived as traditionally male occupations because these occupations are generally ascribed with a higher status level (Gottfredson, 1996). This could explain why the girls in the present sample are aspiring to higher status occupations.

With regard to how socioeconomic status levels influence children's occupational aspirations, an interesting observation can be made based on the present findings. Both international (Bobo et al., 1998; Cook et al., 1996; Leung, 1995; Phipps, 1995) and South African (Cherian, 1991; Cloete, 1980; Grobler, 2000; Horn, 1995; Westaway, 1983) career research on children of various ages have found socioeconomic status level and culture to be significant factors in shaping the occupational aspirations of children from lower socioeconomic status backgrounds. Generally, research indicates the lower the socioeconomic status level of the children the lower the status level of the occupations they aspire to. Given that the participants were from a lower socioeconomic status background, one would have expected them to aspire to lower status level occupations, based on previous research. This was not the case in the present study. It is also important to note that South Africa is presently undergoing a political transition. This may have impacted positively on the participants' occupational aspirations and increased the perception that anything might be possible. Previously, high status level occupations were not open to black South Africans who by and large were and still are categorised as falling within the lower socioeconomic status level group. However, some previous research findings differ from those mentioned above and suggest that while considering environmental and sociological influences it is significant to note that assorted studies show that children across all socioeconomic status groups in the age group between 10 and 14 years of age aspire to high status level occupations as indicated by Gottfredson's theory (Liben et al., 2001; Strocher, 1994).

Thus, Xhosa-speaking South African children are presently aspiring more to Investigative and high status occupations than was established in previous research. Previous researchers have voiced concern that South African black children tend to aspire to unrealistic occupations and that the South African labour market requires more technical workers (Chuenyane, 1990; Stead, 1996; Stead & Nqweni, 1999). There is however still some reason for concern as the specific occupations (i.e., ‘doctor’, ‘lawyer’ and ‘teacher’) that the present participants aspire to remain somewhat unrealistic in terms of their socioeconomic status levels and the requirements of the labour market in South Africa.

Gender Stereotyping of Occupations

The second aim of the present study was to investigate whether the participants held gender stereotypical perceptions about occupations and whether there were gender differences in this regard. Once again, in order to organise this discussion it is easier to refer to traditional male and female occupations. Furthermore the same criteria that were utilised to distinguish between traditional male and traditional female occupations in Chapter Five will be adhered to in this subsection of the chapter. Occupational choices were categorised as traditional and non-traditional according to criteria established by Statistics South Africa (2002). The researcher used the criterion of considering an occupation as traditionally male or female if more than 70% of workers in an occupation are either male or female. Examples of traditional female occupations include domestic worker, nurse, teacher, social worker and kitchen worker. Examples of traditional male occupations include police officer, doctor, engineer, gardener and builder.

The findings concerning this aim of the study will be discussed firstly in terms of career development theory, specifically with reference to Gottfredson’s theory. Thereafter the focus of the discussion will shift to comparing the findings of the present study to previous career research.

Half of the occupations named by the total sample as suitable occupations for women fell into Holland's Social typology. When further examining the specific occupations that were named as occupations that women could and could not do, it is interesting to note that most of the occupations considered as suitable for women are traditional female occupations such as 'domestic worker', 'nurse', 'teacher', and 'kitchen worker'. It can be noted that although three of the occupations named fell within the high status level another two fell within the unskilled status level. The top five occupations named as unsuitable for women can all be considered as traditional male occupations and they fell largely into the Realistic typology such as 'gardener', 'builder', 'mechanic', 'police officer' and 'engineer' with none falling within the unskilled level of occupations.

Over half of the occupations named by the participants as most suitable for men fell into Holland's Realistic typology of occupations and are considered as traditionally male occupations such as 'builder', 'gardener', 'police officer', 'doctor', 'mine worker', and 'mechanic'. The occupations that were named as unsuitable for men fell within Holland's Social typology and are all considered as traditionally female occupations; such as 'domestic worker', 'nurse', 'cook', 'kitchen worker', 'cleaner' and 'dishwasher'. The majority fell into the unskilled status level and only one was classified as a middle status level occupation. The majority of the occupations considered by the total sample as being the most suitable for men and women fell into Holland's Social typology, which includes occupations such as 'teacher', 'police officer', 'nurse' and 'cook'. It is worth noting that 'nurse' and 'cook' were both named as occupations that men could not do and 'police officer' was named as an occupation that women could not do.

Furthermore, the occupations named fell into a wide range of status levels within the typology. Thus one occupational status level did not hold possibilities for only one gender but the present

participants perceived all status levels within the typology as capable of providing suitable occupations for both genders.

Although the boys and girls responded similarly throughout, slight differences were noted with the boys generally naming more occupations than the girls as unsuitable for men and as being suitable for women. The boys named six possible occupations as unsuitable for women, with ‘security guard’ being named as an additional occupation that women could not do. The boys also named more occupations as suitable for men than the girls, as they included ‘mechanic’ and ‘teacher’ in their list. Furthermore, the girls named ‘dish washer’ as an additional occupation that was perceived as unsuitable for men. The boys’ and girls’ responses differed slightly with regards to occupations that were perceived as suitable for both genders with the boys naming ‘lawyer’ and the girls naming ‘cook’ as occupations that were suitable for both genders.

When the participants were given the opportunity to select whether a named occupation was suitable for either gender or for both genders the results demonstrated that the occupations that were selected as occupations that both genders could do (by the boys and the girls) were ‘teacher’, ‘medical scientist’, ‘reporter’, ‘lawyer’ and ‘accountant’. It seems as if both boys and girls acknowledge that most occupations could be done by both genders; nonetheless there is still a level of occupational gender stereotyping that exists for some occupations. The results of the present study indicate that the occupations that are being gender stereotyped by the participants are generally those that are considered as traditionally male or female occupations. It seems as if both boys and girls prefer traditional male occupations for boys. With regards to which gender group is stereotyping occupations, the boys seem more likely to accept girls into traditionally male occupations than girls are in receiving boys into traditionally female occupations. The results of the present study indicate that Xhosa-speaking South

African children are in fact aware of gender stereotyping with regard to occupations. These results will now be examined in terms of existing career development theory.

Super's theory of childhood career development deals with gender issues in a broad general manner. However, Gottfredson's (1981, 1996) theory is concerned with the development of occupational gender stereotyping during childhood. The findings of the present study agree with Gottfredson's notion that young children realise the existence of adult roles and that they categorise such roles according to gender appropriateness. The participants of the present study correspond with the third stage of Gottfredson's developmental theory, namely 'Orientation to Social Valuation,' as their orientation to gender roles has already been established. In this third stage of career development the social symbols of prestige and class exerts more influence on children than male and female gender roles. It is therefore also expected that children's social backgrounds will have an influence on their occupational aspirations and the level to which they gender stereotype occupations. Both gender and social background can be perceived as limiting factors in the development of occupational aspirations, and occupations that are considered as too difficult or as having low prestige attached to them, are often eliminated (Gottfredson, 1996). Such thinking thus limits career opportunities for both gender groups.

The findings in the present study supports international research which has found that the notion of gender is developed by the age of six years and that it continues to influence the occupational aspirations of individuals throughout their lives (Gottfredson, 1981, 1996; Liben et al., 2001). The present study's findings support research that has found that the types of occupations that are perceived as desirable for men and women by boys and girls within this age group are associated more with gender than other factors such as ability and personal preference (Arap-Maritim, 1984; Liben et al., 2001; McGee & Stockard, 1991; Sellers et al., 1999). Thus the girls indicated that occupations suitable for

women are those that are traditionally feminine whereas the boys indicated that occupations suitable for men were those traditionally viewed as masculine.

Research has indicated that the shift toward egalitarianism has disparate consequences for males and females (Bailey & Nihilen, 1990). The girls in the present sample seem to be less liberal than the boys in their views about the types of jobs women and men can do. As a consequence the results of this study do not support the notion that girls are more likely than boys to accept males into traditionally female occupations (Bobo et al., 1998; Helwig, 1998a; McMahon & Patton, 1997). The present study's results are more in line with findings which have indicated that it was more appropriate for women to enter traditionally male careers than it was for men to enter traditionally female careers and that specifically the girls demonstrated this attitude (Greene, Sullivan & Beyhard-Tyler, 1982; Phillips et al., 1995; Vincenzi, 1977).

There may be a variety of reasons for this. There has been considerable evidence indicating that girls are given greater freedom to express cross-gender behaviour than boys (Sandberg et al, 1991). Henderson, Hesketh and Tuffin (1988) suggest that boys may experience more social disapproval for participating in feminine activities than girls do for participating in masculine activities. This attitude may also be attributed to the cultural group to which the participants belong. For example, Xhosa-speaking males are not usually assigned tasks such as cooking, cleaning and childcare. In contrast, Xhosa-speaking females have not only been held responsible for these homemaking tasks, but have also participated in the labour market outside of their homes in order to assist their families to manage financially (Hickson & White, 1989; Schonegeval, 1997). Thus they have had more exposure to traditionally male-related activities outside the home. In future research it would be worth observing whether the present level of unemployment amongst the Xhosa-speaking men in South Africa will have

an influence on the attitudes that both genders hold with regards to traditional male and female occupations.

To date there has been no South African research with regards to the present age group in terms of gender stereotypical perceptions. However, research on adolescents' gender stereotypical perceptions regarding occupations has indicated that adolescents and young adults classify occupations within the context of their suitability for males and females (Horn, 1995; Marais & Havenga, 1989). Research on the gender stereotyping of occupations amongst South African pre-primary and junior primary school children supports the notion that children also classify occupations in terms of their suitability for males and females, as well as for their status levels (Dean, 1998, 2001; Grobler, 2000). The present study's results were similar to those of Dean (1998) who also indicated that boys tend to choose occupations that are more physically orientated for men and that girls choose more social type occupations for women. Dean's study also found that, as with the present study, boys appear to be less gender stereotyped than girls and that they are more likely to accept girls into traditional male occupations.

The present study does not support the finding of international research that occupations within the lower status levels are perceived as being appropriate for females while occupations at the higher status levels are perceived as being appropriate for males (Helwig, 1998a; Liben et al., 2001). The findings from this study indicate that both boys and girls demonstrated that occupations within all status levels were perceived as suitable for males and females.

Having briefly summarised and discussed the results of the present study, the following sections will address the limitations of the present study as well as offer recommendations for future research.

Limitations of the Present Study

The limitations of the present research need to be understood against the context of the present research in that it is a first attempt to provide baseline information about the occupational aspirations and gender stereotyping of South African Xhosa-speaking senior primary school learners. Thus, it has been described as exploratory-descriptive research with all the associated methodological issues that such a research design presents.

One of the limitations of this type of research is that extraneous variables cannot be controlled for. Although the field workers were all trained in the same manner it was not possible to ensure that all the field workers would establish the same level of rapport with the children. The language barrier may have impacted on the present study's findings. Although attempts were made (i.e. the translation of the questionnaire into Xhosa and the employment of Xhosa-speaking field workers) to lessen the impact of language on the results it still remained a problem for a few children. It is also possible that trained field workers speaking in Xhosa may have said more than intended. The researcher does not speak Xhosa and could therefore not control for this.

A limitation of the present study lies with its sample which possesses attributes that limit the generalisability of the results. Although the sample consisted of a fairly large number of participants it cannot be considered as representative of all Xhosa-speaking senior primary learners. In addition, intact classes (from only two primary schools) were utilised rather than randomly selected participants. Furthermore, the participants were also restricted to a limited geographical area of South Africa. The sample consisted of a specific language group, Xhosa-speakers, who have a culture that is distinct from other black South Africans. Lastly, the sample was also unequal in its representation of boys and girls, which allowed for restricted gender comparisons.

Another limitation of the present study is that it could not take sufficient cognisance of the factors that could have influenced the development of occupational aspirations and gender stereotyping. South Africa is a country in transition and it is less stable than more developed countries. This could impact on people in various ways. It becomes complicated to identify extraneous variables that may occur as a result of such a macro transition, but it must be assumed that they can occur. There remains a need for further research into other variables that could be influential in the development of the occupational aspirations of Xhosa-speaking senior primary learners in South Africa. For example, the prevalence of HIV/AIDS is high in the Eastern Cape region and this might impact on the present participants' occupational aspirations, with a large percentage of the participants aspiring to become doctors. It could be therefore that certain occupations become more visible during certain times.

Lastly, employing descriptive rather than inferential statistics is limiting in that it is only possible to summarise and describe the data as there is no basis for making predictions or estimates about what is likely to happen in the future with regards to the situation that has been observed. However, the type of statistical analysis chosen was linked to the fact that only nominal level data were gathered in the present study.

Recommendations

The literature review as well as the results of the present study indicate a need for further research in this area. The present research study, as well as existing career theory, indicate that children between the ages of 10 and 14 years are able to clearly state what they want to be when they grow up and in this manner project themselves into adult roles. Furthermore, they gender-stereotype occupations that may limit them in their occupational aspirations and future choices. The findings of the present study also indicate that occupational awareness and the ability to make a tentative occupational choice is

present in children in middle childhood and early adolescence, which is earlier than previously considered. With the implementation of the new educational framework in South African schools, career education is compulsory and has been included in the Life Orientation learning area which aims to provide learners with an awareness of themselves and the skills to make informed career decisions. The results from this study can be a useful guide in assisting teacher counsellors and curriculum developers in the development of career programmes as it provides much needed baseline information on which to base future career guidance programmes. Sharf (1997) maintains that as children develop a future orientation, career programmes assist them in constructing a sense of planfulness with regards to the future.

Future research should focus on addressing some of the limitations of the present study. Continued research into the influence of occupational gender stereotyping, cultural group, and socioeconomic status on children's career development seems warranted. It would be beneficial to evaluate how different cultural groups in South Africa compare with regards to occupational aspirations and occupational gender stereotyping. A longitudinal study may also be useful to explore how occupational aspirations and occupational gender stereotyping change over time. The role of societal factors and of the family, particularly the influence of parental occupations on occupational aspirations and gender stereotyping, could then be explored in greater detail. With regards to gender comparisons, it is recommended that future samples include more equivalent numbers of boys and girls so as to make statistical comparisons possible.

Although the present study does not claim to provide substantial answers with regard to the occupational aspirations and occupational gender stereotyping of senior primary school Xhosa-speaking boys and girls, it has made a start in obtaining much needed baseline information. The researcher hopes that the results obtained from this study will prove useful and that the study will provide programme

developers with meaningful information to assist in the designing of future career development programmes.

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APPENDICES

APPENDIX A

Career Survey

We are interested in finding out what young people think about careers and work, and we would like you to help us by answering the questions contained in this booklet. There are no right or wrong answers. Please write the best and most honest answer that you can think of.

Sinomdla wokufumanis ukuba ulutsha lucinga ntoni nge-careers nomsebenzi, singathanda usincede ngokuphendula lemibuzo ikule ncwadana. Akukho mpendulo zilungileyo akanye ezingalunganga. Nceda abhale eyonayona mpendulo emsulwa onothi ucinge ngayo.

Gender: (please circle) Male Female

Name: _____

Igama: _____

Father's work _____

Mother's work _____

Date of Birth: _____

Usuku lokuzalwa: _____

School: _____

Isikolo: _____

Class: _____

Ibanga:

Today's Date: _____

Usuku lanamhlanje:

Form 1

1. What jobs are you interested in doing when you grow up?
Yeyipi imisebenzi onomdla wokuyenza xa usele umdala / ukulile?

2. Of those jobs you wrote down, which one is your favourite?
Kule uyibhale phantsi – ngowuhi owuthanda kakhulu?

3. What is it about you that would make you good at your favourite job?
Yintoni ngawe enokwenza ughube kakhule kulomsebenzi uwuthanda kakhulu?

4. Who could influence you toward or away from choosing jobs?
Ngubani onokwenza ukhethe okanye ungakhethi imisebenzi?

5. What could influence you toward or away from choosing jobs?
Yinto enokwenzaukhethe okanye ungakhethi imisebenzi?

6. How did you find out about those jobs that you wrote down?

Ufumanise njani ngalemisebenzi uyibhale phantsi?

7. How else could you find out information on jobs?

Ungaphinde waziswe njani ngemisebenzi?

8. When you think about jobs, what information do you need to find out?

Xa ucinga ngemisebenzi, udinga oluphi ulwazi onokuthi ulusebenzise?

9. What do you do at school that might help prepare you for the jobs that interest you?

Yintoni oyenzayo esikolweni enokuthi ikuncede ekuzilungiselenteni kulemisebenzi uyifumanisa inomdla?

Form 2

1. Write down some jobs you think women **can** do.

Bhala phantsi eminye yemisebenzi ocinga abafazi **anokuyenza**.

2. Write down some jobs you think women **cannot** do.

Bhala phantsi eminye imisebenzi ocinga abafazi **awanako** ukuyenza.

3. Write down some jobs you think men **can** do.

Bhala phantsi eminye imisebenzi ocinga amadoda **anako** ukuyenza.

4. Write down some jobs you think men **cannot** do.

Bhala phantsi eminye imisebenzi ocinga amadoda **awanako** ukuyenza.

5. Write down some jobs you think both men and women **can** do.

Bhala phantsi eminye imisebenzi ocinga amadoda nabafazi **anokuyenza** kunye.

Form 3

Think about whether you think the following jobs could be best done by males, females or both. If you think the job would be best done by a male, tick the box under the heading **Male**. If you think the job would be best done by a female, tick the box under the heading **Female**. If you think the job could be done equally well by males and females, tick the box under the heading **Both**.

Cinga ngotzuba, ucinga lemisebenzi ilandelayo inokwenziwa bhetele / kakuhle ngabantu besilisa, abangamabhinqa okanye ngabo bobabini na. Ukuba ucinga ukuba umsebenzi ungenziwa bhetele / kakuhle ngumntu wesilisa, korekisha ibhokisi esezantsi kwesibhalo **Male**. Ukuba ucinga ukuba umsebenzi ungenziwa bhetele / kakuhle libhinga, korekisha ibhokisi esezantsi kwesibhalo **Female**. Ukuba ucinga umsebenzi ungenziwa ngokulinganayo / kakuhle ngamadoda nabafazi, korekisha ibhokisi esezantsi kwesibhalo **Both**.

		Male	Female	Both
Example:	teacher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Umzekelo:	umfundisi-ntsapho			
a)	electrician umsebenzi wombane	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	medical scientist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	detective umcuphi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	dentist ugqirha wamazinyo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Male	Female	Both
e) jeweller umenzi wobucwwebe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) reporter umthuthi-ndaba	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) sports coach i-coach wezemidlalo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) teacher umfundisi-ntsapho	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) bank manager i-manejala yebhanka	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) lawyer igqwetha	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k) prison officer i-ofisa yasejele letilonweni	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l) accountant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Form 4

For each of the groups of jobs below, write down something that they **ALL** have in common. If you don't think they have anything in common write "nothing". See the examples below before starting. Circle any words you don't understand.

Kwi "group" ngange yemisebenzi esezantsi, bhola phantsi into efanayo kuzo **ZONKE**. Ukuba ikhona into efumanekayo kuzo bhala ukuba "ayikho". Jonga imizekelo esezantsi phambi kokuba uqalise. Yenza isangqa kumagamo ongawaqondiyo.

Example:

Umzekelo:

builder, gardener, hairdresser = work with their hands

Umakhi, umlini, umenzi wenwele = basebenza ngezandla zabo

ambulance officer, police officer, bus driver = they help people

ambulance officer, i-ofisa yamapolisa, umqhubi webhasi = banceda abantu

teacher, truck driver, scientist = nothing

umfundisi-ntsapho, umqhubi wetrakha, scientist = ayikho

a) motor mechanic, hairdresser, pilot =

umakhenikhi / mlungisi wemoto, umenzi wenwele, umqhubi wengola matutha =

b) vet, doctor, scientist = ugqirha wezilwanyana, ugqirha, scientist =

- c) actor, fashion designer, singer =
umdbuli, wasesifeuil, imuumi / umlonji =

- d) teacher, nurse, receptionist =
umfundisi-ntsapho, umongi (kazi), i-receptionist =

- e) lawyer, sales assistant, bank manager =
igqwetha, umncedisi-mthengisi, i-manejara yebhanka =

- f) secretary, accountant, bank worker =
unobhala, accountant, umsebenzi wasebhankeni =

Form 5

Write down things a student may learn or do at school that might be helpful in the following jobs.

Bhala phantsi izinto umfundi angazifunda okanye azenz e esikolweni ezinobaluncedo kulemisebenzi ilandelayo.

a) police officer

i-ofisa yamapolisa

b) vet

ugqirha wezilwanyana

c) model

d) ambulance officer

i-ofisa yesithuthi sabagulayo

e) lawyer
igqwetha

f) secretary
unobhala

Thank you for answering these questions
Enkosi ngokuphendula lemibuzo

APPENDIX B

Favourite occupations aspired to per Holland's typology, status level and gender

<u>Typology</u>	<u>Career</u>	<u>Status level</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>
Realistic	Seamstress	4	1	0	1
	Computer programmer	1	1	0	1
	Kitchen work	5	1	0	1
	Pilot	1	6	6	0
	Electrician	3	1	1	0
	Car manufacturer	4	1	1	0
	Truck driver	4	1	1	0
			12	9	3
Investigative	Doctor	1	96	50	46
	Lawyer	1	30	5	25
	Judge	1	1	0	1
	Vet	1	1	0	1
	Engineer	1	5	5	0
	Psychologist	1	1	1	0
			134	61	73
Artistic	T.V. presenter	1	5	0	5
	Musician	1	1	0	1
	Fashion designer	1	1	0	1
	Artist	1	1	0	1
	Journalist	1	1	0	1
	Singer	1	2	1	1
	Actor	1	1	1	0
			12	2	10
Social	Social worker	1	28	5	23
	Teacher	1	30	7	23
	Police officer	2	18	15	3
	Nurse	2	15	0	15
	Professional sportsperson	1	6	5	1
	Traffic officer	2	5	5	0
	Health inspector	1	1	1	0
	Security guard	2	1	1	0
			104	39	65
Enterprising	Manager	1	5	3	2
	Shop assistant	2	1	0	1

	President	1	1	1	0	
			7	4	3	
Conventional	Accountant	1	4	2	2	
	Bank clerk	2	1	0	1	
			5	2	3	
Do not know			0	0	0	
Everything			0	0	0	
Non codeable			0	0	0	
			274	117		157

APPENDIX C

Occupations that women can do according to Holland's typology, status level and gender

<u>Typology</u>	<u>Career</u>	<u>Status level</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>
Realistic	Ambulance driver	4	2	1	1
	Baker	3	3	0	3
	Builder	3	1	0	1
	Clothes washer	5	35	17	18
	Cook	3	36	19	17
	Delivery person	4	1	0	1
	Dolphin trainer	4	1	0	1
	Dish washer	5	22	12	10
	Factory worker	4	1	1	0
	Farm worker	5	2	1	1
	Gardener	4	6	5	1
	Hair dresser	3	5	1	4
	Janitor	5	3	2	1
	Kitchen work	5	42	17	25
	Machine operator	4	1	0	1
	Mine worker	3	2	1	1
	Petrol pump attendant	3	1	1	0
	Pilot	1	3	2	1
	Rubbish collector	5	1	1	0
	Seamstress	4	9	6	3
	Soldier	2	1	1	0
	Street sweeper	5	6	2	4
	Window washer	5	3	3	0
Total			187	93	94
Investigative	Astronaut	1	1	1	0
	Dentist	1	1	0	1
	Doctor	1	41	13	28
	Lawyer	1	25	6	19
	Judge	1	2	1	1
Total			70	21	49
Artistic	Actor	1	6	5	1
	Fashion designer	1	20	6	14
	Journalist	1	3	1	2
	Photographer	1	1	0	1
	Psychologist	1	1	0	1
	Singer	1	4	2	2
	T.V. Presenter	1	4	0	4
Total			39	14	25
Social	Baby sitter	5	3	3	0
	Beautician	2	3	0	3

	Cleaner	5	23	10	13
	Domestic worker	5	102	44	58
	Fireman	2	1	0	1
	Hotel worker	5	3	2	1
	House Keeper	5	1	0	1
	Housewife	5	4	1	3
	Nanny	5	15	5	10
	Nurse	1	101	39	62
	Police officer	2	19	7	12
	Security guard	2	2	1	1
	Social worker	1	32	13	19
	Professional sportsperson	1	4	2	2
	Teacher	1	75	24	51
	Waitress	4	2	2	0
	Traffic officer	2	8	4	4
Total			398	157	241
Enterprising	Business man	2	3	2	1
	Cashier	2	2	0	2
	Hawker	2	5	1	4
	Model	2	1	1	0
	President	1	2	1	1
	Sales assistant	2	5	1	4
	Shop keeper	2	3	1	2
Total			21	7	14
Conventional	Administrative clerk	2	2	0	2
	Bank clerk	2	3	1	2
	Teller	2	3	1	2
Total			8	2	4
Do not know			7	3	4
Everything			1	0	1
Illegal occupations			0	0	0

APPENDIX D

Occupations that women cannot do according to Holland's typology, status level and gender

<u>Typology</u>	<u>Career</u>	<u>Status level</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>
Realistic	Animal slaughterer	4	1	1	0
	Brick layer	3	1	0	1
	Brick maker	4	3	2	1
	Builder	3	64	24	40
	Bus driver	4	1	0	1
	Butcher	4	1	0	1
	Car manufacturer	4	14	6	8
	Carpenter	3	7	4	3
	Car washer	5	10	6	4
	Construction worker	4	6	4	2
	Contract worker	2	1	0	1
	Cook	3	2	0	2
	Cow herder	5	2	1	1
	Delivery person	4	2	0	2
	Dog washer	5	1	1	0
	Dish washer	5	1	0	1
	Electrician	3	15	3	12
	Factory worker	4	3	3	0
	Farmer	2	1	1	0
	Farm worker	5	3	3	0
	Fisherman	4	2	0	2
	Gardener	4	65	30	35
	Glass fitter	4	1	0	1
	Hair dresser	3	3	1	2
	Handy man	3	2	0	2
	Hunter	2	2	1	1
	Iron smith	3	2	2	0
	Janitor	5	4	2	2
	Kitchen work	5	1	0	1
	Mechanic	3	28	12	16
	Mine worker	3	17	8	9
	Municipal worker	4	8	3	5
	Painter	5	17	3	14
	Physical labourer	5	3	2	1
	Pilot	1	3	1	2
	Plumber	3	2	2	0
	Rubbish collector	5	2	1	1
	Sailor	4	1	1	0
	Seamstress	4	1	0	1
	Shoe maker	4	5	3	2
	Street sweeper	5	9	2	7
	Soldier	2	11	4	7
	Taxi driver	4	5	4	1

	Telephone installer	3	1	1	0
	Tree feller	2	2	1	1
	Truck driver	4	2	2	0
	Tool packer	1	1	1	0
	Tyre builder	4	12	7	5
	Window washer	5	6	5	1
	Zoo keeper	4	1	0	1
Total			358	158	200
Investigative	Computer engineer	1	1	1	0
	Engineer	1	18	12	6
	Dentist	1	2	1	1
	Doctor	1	8	4	4
	Lawyer	1	4	0	4
	Judge	1	1	0	1
Total			34	18	16
Artistic	Artist	1	2	1	1
	Fashion designer	1	1	0	1
Total			3	1	2
Social	Body guard	2	1	1	0
	Cleaner	5	1	1	0
	Domestic worker	5	1	0	1
	Fireman	2	12	2	10
	Life saver	4	1	0	1
	Nurse	1	1	0	1
	Police officer	2	29	7	22
	Reverend	1	1	1	0
	Security guard	2	14	8	6
	Social worker	1	3	1	2
	Professional sportsperson	1	13	6	7
	Teacher	1	3	0	3
	Tour guide	2	1	1	0
	Traffic officer	2	2	1	1
	Train driver	4	2	1	1
Total			85	30	55
Enterprising	Bank manager	1	1	1	0
	Business man	2	1	0	1
	Politician	1	1	1	0
	President	1	1	0	1
Total			4	2	2
Conventional	Messenger	4	1	1	0
	Postman	4	1	1	0
Total			2	2	0
Do not know			13	4	9

Everything	10	2	8
Non codeable occupations			
Prostitute	1	0	1
Thief	1	0	1

APPENDIX E

Occupations that men can do according to Holland's typology, status level and gender.

<u>Typology</u>	<u>Career</u>	<u>Status level</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>
Realistic	Brewer	4	1	1	0
	Brick layer	3	1	0	1
	Brick maker	4	2	1	1
	Builder	3	80	34	46
	Bus driver	4	3	3	0
	Care taker	4	1	0	1
	Car manufacturer	4	16	10	6
	Carpenter	3	12	5	7
	Car washer	5	14	6	8
	Clothes washer	5	3	1	2
	Construction worker	4	11	4	7
	Contract worker	2	1	0	1
	Cook	3	2	0	2
	Cow herder	5	2	0	2
	Delivery person	4	1	0	1
	Dog washer	5	2	1	1
	Dish washer	5	2	0	2
	Electrician	3	22	6	16
	Factory worker	4	5	4	1
	Farmer	2	1	1	0
	Fisherman	4	4	0	4
	Gardener	4	79	31	48
	Glass fitter	4	2	0	2
	Graveyard digger	5	1	0	1
	Hair dresser	3	5	0	5
	Handy man	3	7	0	7
	Hunter	2	2	1	1
	Janitor	5	2	1	1
	Mechanic	3	32	14	18
	Mine worker	3	44	17	27
	Municipal worker	4	6	4	2
	Painter	5	8	4	4
	Petrol pump attendant	3	2	2	0
	Physical labourer	5	4	2	2
	Pilot	1	8	6	2
	Plumber	3	7	4	3
	Roofer	5	4	2	2
	Rubbish collector	5	2	2	0
	Shoe maker	4	6	3	3

	Street sweeper	5	6	3	3
	Soldier	2	9	4	5
	Taxi driver	4	8	5	3
	Telephone installer	3	1	0	1
	Tree feller	2	1	1	0
	Truck driver	4	3	3	0
	Tool packer	1	1	1	0
	Tyre builder	4	7	6	1
	Wood cutter	5	4	3	1
	Window washer	5	3	0	3
	Zoo keeper	4	1	0	1
Total			451	196	255
Investigative	Astronaut	1	2	2	0
	Engineer	1	24	18	6
	Dentist	1	5	3	2
	Doctor	1	44	19	25
	Lawyer	1	16	6	10
	Judge	1	3	1	2
	Surgeon	1	1	0	1
Total			95	49	46
Artistic	Artist	1	2	0	2
	Fashion designer	1	1	0	1
	Journalist	1	1	1	0
	Photographer	1	1	1	0
	Singer	1	1	1	0
Total			6	3	3
Social	Body guard	2	1	1	0
	Cleaner	5	3	2	1
	Fireman	2	11	2	9
	Hotel worker	5	1	0	1
	Life saver	4	1	0	1
	Nurse	1	5	3	2
	Police officer	2	56	22	34
	Principal	1	2	0	2
	Prison warder	2	2	2	0
	Reverend	1	3	2	1
	Security guard	2	23	10	13
	Social worker	1	11	6	5
	Professional sportsperson	1	20	10	10
	Teacher	1	32	14	18
	Traffic officer	2	8	5	3
	Train driver	4	2	1	1
Total			181	80	101

Enterprising	Bank manager	1	1	1	0
	Hawker	2	2	1	1
	Manager	1	3	2	1
	President	1	2	1	1
Total			8	5	3
Conventional			0	0	0
Do not know					
Everything			1	0	1
Non codeable occupations					
	Prostitute		0	0	0
	Thief		2	0	2

APPENDIX F

Occupations men cannot do according to Holland's typology, status level and gender.

<u>Typology</u>	<u>Career</u>	<u>Status level</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>
Realistic	Ambulance driver	4	1	0	1
	Baker	3	4	0	4
	Builder	3	2	1	1
	Carpenter	3	1	0	1
	Clothes washer	5	14	6	8
	Cook	3	35	17	18
	Dish washer	5	20	7	13
	Electrician	3	1	0	1
	Gardener	4	3	2	1
	Hair dresser	3	8	5	3
	Janitor	5	1	1	0
	Kitchen work	5	35	16	19
	Mine worker	3	2	1	1
	Painter	5	1	0	1
	Physical labourer	5	1	0	1
	Plumber	3	1	1	0
	Rubbish collector	5	1	0	1
	Seamstress	4	9	6	3
	Shoe maker	4	1	1	0
	Street sweeper	5	4	3	1
	Tea lady	5	2	2	0
	Tree feller	2	1	0	1
Total			148	69	79
Investigative	Doctor	1	1	1	0
Artistic	Fashion designer	1	6	2	4
	Journalist	1	1	0	1
	Singer	1	1	1	0
Total			8	3	5
Social	Baby sitter	5	12	3	9
	Beautician	2	1	1	0
	Cleaner	5	25	12	13
	Domestic worker	5	84	39	45
	Fireman	2	1	0	1
	Hotel worker	5	2	2	0
	House Keeper	5	1	0	1

	Housewife	5	1	0	1
	Nanny	5	15	7	8
	Nurse	1	53	21	32
	Social worker	1	13	6	7
	Professional sportsperson	1	4	3	1
	Teacher	1	5	3	2
	Waitress	5	2	1	1
Total			219	98	121
Enterprising	Accountant	1	1	1	0
	Hawker	2	3	1	2
	Manager	1	2	0	2
	Sales assistant	2	3	2	1
Total			9	4	5
Conventional	Cashier	2	1	0	1
	Secretary	2	1	0	1
Total			2	0	2
Do not know			19	6	13
Everything			30	9	21
Illegal occupations					
	Prostitute		0	0	0
	Thief		0	0	0

APPENDIX G

Occupations that men and women can do according to Holland's typology, status level and gender.

<u>Typology</u>	<u>Career</u>	<u>Status level</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>
Realistic	Baker	3	2	0	2
	Builder	3	3	1	2
	Car manufacturer	4	2	1	1
	Carpenter	3	1	0	1
	Car washer	5	2	0	2
	Clothes washer	5	13	6	7
	Computer programmer	1	1	1	0
	Cook	3	29	8	21
	Dish washer	5	13	8	5
	Electrician	3	1	0	1
	Factory worker	4	7	5	2
	Farm worker	5	3	2	1
	Fisherman	4	1	0	1
	Gardener	4	18	10	8
	Hair dresser	3	9	1	8
	Jeweller	3	2	0	2
	Mechanic	3	2	2	0
	Mine worker	3	3	0	3
	Painter	5	4	1	3
	Petrol pump attendant	3	4	2	2
	Pilot	1	6	3	3
	Rubbish collector	5	1	1	0
	Seamstress	4	1	1	0
	Street sweeper	5	4	1	3
	Soldier	2	2	1	1
	Taxi driver	4	9	6	3
	Truck driver	4	1	1	0
	Tyre builder	4	1	0	1
	Window washer	5	3	2	1
Total			148	64	84
Investigative	Astronaut	1	1	1	0
	Engineer	1	1	1	0
	Dentist	1	3	2	1
	Doctor	1	68	26	42
	Lawyer	1	28	13	15
	Judge	1	2	1	1
Total			103	44	59
Artistic	Artist	1	1	1	0

	Actor	1	6	4	2
	Academic	1	1	0	1
	Fashion designer	1	2	2	0
	Interior decorator	1	1	1	0
	Musician	1	1	0	1
	Photographer	1	1	0	1
	Radio DJ	1	1	0	1
	Singer	1	4	2	2
	T.V. Presenter	1	1	0	1
Total			19	10	9
Social	Baby sitter	5	2	2	0
	Cleaner	5	16	5	11
	Detective	2	1	0	1
	Domestic worker	5	4	1	3
	Fireman	2	4	1	3
	Hotel worker	5	1	0	1
	Housewife	5	1	1	0
	Inspector	1	1	1	0
	Interpreter	1	1	1	0
	Nanny	5	1	0	1
	Nurse	1	36	12	24
	Police officer	2	50	24	26
	Principal	1	3	1	2
	Security guard	2	5	5	0
	Social worker	1	16	5	11
	Professional sportsperson	1	4	3	1
	Teacher	1	93	42	51
	Traffic officer	2	5	2	3
	Waitress	5	1	1	0
Total			245	107	138
Enterprising	Accountant	1	1	0	1
	Bank manager	1	2	0	2
	Cashier	2	1	0	1
	Hawker	2	2	0	2
	Manager	1	2	0	2
	Politician	1	2	1	1
	President	1	2	1	1
	Sales assistant	2	6	4	2
	Shop keeper	2	1	0	1
	Shop owner	1	1	1	0
Total			20	7	13
Conventional	Administrative clerk	2	7	3	4
	Bank clerk	2	3	1	2
	Postman	4	1	1	0

Total	11	5	6	
Do not know	21	8	13	
Everything		3	1	2