

**EXPERIENCING A SENSE OF CALLING: THE INFLUENCE OF MEANINGFUL
WORK ON TEACHERS' WORK ATTITUDE**

Marietjie Willemse

BA(Hons)

Mini-dissertation submitted as partial fulfilment of the requirements for the degree Magister Artium in Industrial Psychology in the School of Behavioural Sciences at the North-West University (Vaal Triangle Campus).

Supervisor: Dr E. Deacon

Vanderbijlpark

May 2013

1. Remarks

The reader is reminded of the following:

- The references as well as the style as prescribed by the Publication Manual (6th edition) of the American Psychological Association (APA) were followed in this mini-dissertation. This practice is in line with the policy of the Programme in Industrial Psychology of the North-West University, Vaal Triangle Campus to use APA style in all scientific documents as from January 1999.
- The mini-dissertation is submitted in the form of a research article.

In memory of my father

Engels von Ludwig

2. Acknowledgements

First and foremost I thank God for granting me the strength, health, courage and inspiration to prosper in this endeavour and thus enriching my knowledge through hardships.

I would also like to express my sincere gratitude to the people who in one way or another contributed to the success of this study, with special reference to the following:

- To my loving and understanding husband, Alex. You are the star that gives light to this work. Your patience with me, love, encouragement, tolerance and silent confidence that I have the capability, warrant you to have co-authorship in this endeavour. I acknowledge that it was not always easy sacrificing your weekends and holidays while I was busy with this study. Thank you for your infinite love and support during this trying times.
- A special thank you to my supervisor, Dr Elmari Deacon, for her guidance, insight and encouragement in the writing and compilation of this work. Your invaluable support and patience throughout this journey has been unreal and is appreciated from the bottom of my heart.
- I wish to thank the statistical consultants of Optentia for their assistance and guidance throughout this journey.
- I thank the lecturing staff of the North-West University whose tutelage over the past years provided me with the necessary background skills to undertake and complete this study.
- A note of thanks to the Free State Department of Education for permission to make use of the schools for the purpose of this study. As well as all the principals and teachers in the Fezile Dabi District who acted willingly as respondents in this study.
- I wish to thank Sally van Heerden for providing me with valuable text books and articles over the research period.
- Cecilia van der Walt for the language editing.
- I thank my mother Ena von Ludwig and my late father Engels von Ludwig for instilling in me unquestionable values and morals. Thank you for your love, guidance and for always believing in me throughout the years.
- My sincere gratitude goes out to Anzet von Ludwig and Marlene van Heerden. I am humbled by your friendship. Thank you for your support, prayers and continuously enquiring about my progress for the duration of the study.

- A special thanks to my son, Wynand who has been asked every now and then to look for the misplaced articles and books. Thanks for your sacrifices and support when I was ever so busy with my studies.

Declaration

I hereby declare that “Experiencing a sense of calling: The influence of meaningful work on teachers’ work attitude” is my own work, that it has not been submitted for any degree or examination at any other institution of higher learning and that all references have, to the best of my knowledge been correctly reported. It is being submitted for the degree Master of Arts at the North-West University.

Full Name: Marietjie Willemse

Date: May 2013

Signed: _____

TABLE OF CONTENTS

LIST OF FIGURES	viii
LIST OF TABLES	ix
Chapter 1: Introduction	1
1.1 Introduction	1
1.2 Problem statement	1
1.2.1 Background.	1
1.2.2 Work attitude.	3
1.2.3 Experience a sense of calling.	4
1.2.4 Meaningful work.	5
1.3 Research questions	7
1.4 Research objectives	8
1.4.1 General objectives.	8
1.4.2 Specific objectives.	8
1.5 Research method	9
1.5.1 Phase 1: Literature review.	9
1.5.2 Phase 2: Empirical study.	9
1.6 Chapter division	15
1.7 Chapter summary	16
1.8 References	17
Chapter 2: Research article	22
Chapter 3: Conclusions, limitations and recommendations	57
3.1 Introduction	57
3.2 Conclusions from literature and empirical results	57
3.3 Limitations	59
3.4 Recommendations	60
3.4.1 Practical implications.	60
3.4.2 Future research.	62
3.5 Chapter summary	63
3.6 References	64

LIST OF FIGURES

Chapter 1

Figure 1: The hypothesised relationship between experiencing work as a calling, positive work attitude and meaningful work (adapted from Steger, et al., 2011) 7

Chapter 2

Figure 1: The hypothesised relationship between the experience of work as a calling and positive work attitude and the influence of meaningful work on this relationship (adapted from Steger et al., 2011) 32

Figure 2: Maximum likelihood estimates of the relation between sense of calling, meaningful work and work attitude 44

LIST OF TABLES

Table 1: Characteristics of the Participants ($n = 270$)	35
Table 2: Descriptive Statistics and Cronbach Alpha Coefficients of the Measuring Instruments	40
Table 3: Mean statistics	41
Table 4: Descriptive Statistics and Cronbach Alpha Coefficients of the Measuring Instruments	42
Table 5: Direct effects of Meaningful work and Work attitude	43
Table 6: Indirect effects of Meaningful work	45

Summary

Title: Experiencing a sense of calling: The influence of meaningful work on teachers' work attitude.

In the current South African context, negative work attitude of teachers has become a phenomenon to be reckoned with as it has a detrimental effect on the education system. Although research on this phenomenon is still scarce, a growing interest in work attitude and its different underlying constructs is obvious from the increase of work attitude research. It is now time to investigate ways to improve work attitude, one of which could be to invest in meaningful work.

The aim of this study is to expand on the understanding of the relationship between experiencing a sense of calling and work attitude as well as to determine the influence of meaningful work on this relationship. Through this study the researcher proposed an adapted model of Steger, Pickering, Shin and Dik (2011) which will serve as an academic tool for future research. This model will also be applicable as a management tool to understand and deal with teachers' negative work attitude.

A quantitative, cross-sectional survey design was used. The analysis was based on data from a representative sample of teachers recruited from primary and secondary schools in the Fezile Dabi district ($n = 270$) formerly known as the Northern Freestate School district. The following measuring instruments were administered: The Calling and Vocation Questionnaire (CVQ), The Work and Meaning Inventory (WAMI), The Work Preference Inventory (WPI) and The Career Decision Profile (CDP). The researcher used the analytic approach of structural equation modelling by means of the statistical program Mplus. The results revealed that a statistically significant relationship existed between the experience of a sense of calling and work attitude. Results also supported the hypothesis that meaningful work has an indirect effect on the relationship between the experience of a calling and work attitude.

The findings of this study indicated that positive work attitude tends to be enhanced by the addition of meaningful work. The Department of Education will have to take cognisance of ways to create meaningful work if they wish to succeed in educational transformation, as meaningful work has an indirect effect on the relationship between the experience of a calling

and work attitude of teachers. Future studies should include longitudinal studies to validate the proposed adapted model and to identify more predictors of positive work attitude.

Keywords: Experience a sense of calling, work attitude, meaningful work and teachers

Chapter 1: Introduction

1.1 Introduction

This mini-dissertation focuses on teachers in the Fezile Dabi educational district of South Africa and the impact of experience a sense of calling on work attitudes as well as the influence of meaningful work on that relationship. In order to set a research agenda for future research, an adapted theoretical model of teachers' sense of calling on work attitudes and the influence of meaningful work on this relationship within primary and secondary schools will be proposed.

In this chapter, the problem statement is discussed, whereupon the research objectives are set out. Following that, the research method is explained and in conclusion, the division of the chapters is presented.

1.2 Problem statement

1.2.1 Background.

Worldwide, education is regarded as the foundation of a developing nation such as South Africa (EduSwift South Africa, 2010; Motshekga, 2011; Timaeus, Simelane, & Letsoalo, 2011). It can be argued that the success of an education system is reliant on the quality of the teaching that takes place (Carl, 2002; Rademeyer, 2013). A thorough and effective educational system is of utmost importance to nurture the young minds that will become future global citizens (EduSwift South Africa, 2010). However, during the last few decades, dissatisfaction within the public education system has risen exponentially (Yero, 2011).

The South African government introduced policies to sort out the disorganised educational system (Yero, 2011). These policies ensure that quality education is provided to all learners (Department of Education, 2001; Kuyini & Desai, 2007; Nel et al., 2011; Rademeyer, 2013). Investigations recently indicated that policies, however sound they may be, do not ensure successful transformation in education (Kuyini & Desai, 2007). Therefore it is important to take note of barriers to transformation and successful learning.

The most pertinent learning barriers identified by various studies are: socio-economic challenges, unsafe school and home environments, violence in communities, non-involvement of parents, overfull classrooms, untrained teachers, teacher strikes, racism and an inappropriate mastery of language for learning and teaching purposes (Engelbrecht, Oswald, & Forlin, 2006; Jackson & Rothmann, 2005; Jackson & Rothmann, 2006; Jackson, Rothmann, & van der Vijver, 2006; Naicker, 2006; Nel et al., 2011).

The grim circumstances of the South African education system are exacerbated by other challenges that are curriculum related. Curriculum-related challenges that can be accentuated are: inadequate resources, a poorly defined career path, the HIV/AIDS pandemic, contractual employment, low remuneration and an excessive workload (Clair & Adgers, 2001; Lumadi, 2008; Talmor, Reiter, & Feigin, 2005). Consequently many teachers in South Africa are of the opinion that they are ill prepared to meet the needs of the diverse learners in their classrooms (Lumadi, 2008), resulting in the development of a negative work attitude towards the teaching profession (Eloff & Kgwete, 2007).

For purposes of this study, a teacher is described as a professional who teaches others in a confined classroom setting (Dictionary.com, 2010). Teachers are placed firmly at the centre of implementing government policies pertaining to the delivery of quality education to all learners (Department of Basic Education and Higher Education and Training, 2011; Jerlinder, Danermark, & Gill, 2010). Teachers are the change agents that must bring about educational transformation (Department of Basic Education and Higher Education and Training, 2011). Apart from the afore-mentioned barriers, the teachers' negative work attitude is definitely a factor that needs to be addressed as well, especially since Parry (2006) found that the human adult keeps himself busy with his work for more than one-third of his waking life. Therefore it can be argued that a teacher that displays a predominantly negative attitude towards his work will find it extremely difficult to be the change agent required in the classroom.

Moreover, successful education transformation needs the best possible researched and evidence-based practices, highly qualified and effective teachers, the best designed curricula and the most reliable assessment methods possible (Berliner, 2002; Rademeyer, 2013). However, relevant studies on transformation of teachers' behaviour conclude that research is mostly done on the observable behaviour of teachers (Berliner, 2002). Consequently the underlying individual attitude, belief and social structures that unconsciously drive the observable behaviours remain unexamined and therefore unchanged. True transformation

can only be reached once the entire format of the educational system is changed, not simply rearranging the existing format (Berliner, 2002).

Successful transformation of the South African educational system is reliant on the positive work attitude of teachers (Jerlinder et al., 2010). Teachers' work attitude either fosters optimal teaching and learning or hinders growth (Carl, 2002). Adding to this, it is reported that the teachers' intentions and behaviour in the class are directly influenced by their work attitude (Chambers & Forlin, 2010). Since modern researchers concluded that only a positive work attitude can sustain quality education, a negative work attitude can then be perceived as not conducive to quality education (Nel et al., 2011). From the above-mentioned it is evident that further research should be done on means to promote a positive work attitude among teachers, as this is crucial to ensure quality education for all learners in South Africa (Lumadi, 2008; Martinez, 2003).

1.2.2 Work attitude.

According to Chambers and Forlin (2010) as well as Nel et al. (2011) an attitude can be defined as a tendency to react positively or negatively to a certain object, be it a person, idea or situation. Therefore an attitude is closely related to a person's opinion and is based on previous, personal experiences (TIP: Concepts, 2010). The remarkable characteristic of an attitude is that it can change as the experience changes (Nel et al., 2011) or be adjusted as implicit learning takes place (Zimbardo & Leippe, 1991).

Recent studies propose that work attitude not simply relates to but significantly predicts career or work satisfaction as well (Dik & Duffy, 2009; Dik, Duffy & Eldridge, 2009; Steger & Dik, 2010). Work satisfaction varies substantially from person to person (Müller, Alliaata, & Benninghoff, 2009; Staw & Ross, 1985) and due to this variation in work satisfaction, researchers are left to debate that the personal experience of work satisfaction and meaningful work may also influence people's work attitude (Hall & Chandler, 2005).

For purposes of this study the researcher conceptualises work attitude in terms of a) work challenge and work enjoyment (Amabile, Hill, Hennessey, & Tighe, 1994) and b) career decidedness (Jones, 1989). Work challenge and work enjoyment is designed to report on a person's self-perception and motivation for choosing their specific type of work. This study focuses on motivation as intrinsic subscale since it is believed to be an advantageous attitude

towards work. Another important part of work attitude is career decidedness. Career decidedness assists a person in rethinking his choice of career as it measures the extent to which a person is certain about his career choice.

1.2.3 Experience a sense of calling.

Most of the time it is believed that individuals within social occupations such as teachers are more likely to experience their work as a calling (Wrzesniewski, McCauley, Rozin, & Schwartz, 1997). One important finding is that individuals that experience work as a calling find it easier to change their attitude towards their work (Hall & Chandler, 2005). Recent studies support this and add that people that approach their work as it being a calling generally testify to having a more positive work attitude (Duffy, Dik, & Steger, 2011; Elangovan, Pinder, & McLean, 2010; Hall & Chandler, 2005; Steger, Pickering, Shin, & Dik, 2011). This caused renewed interest in the notion of experiencing work as a calling (Steger et al., 2011). However, this thought-provoking research area is plagued with incongruent definitions of what does or does not constitute a sense of calling (Hirschi, 2011).

Elangovan et al. (2010) as well as Dik and Duffy (2009) are of the opinion that the origin of a sense of calling lies historically within the religious framework where the individual is said to receive a “transcendent summons, experienced as originating beyond the self, to approach a particular life role” (in this case work) (Dik & Duffy, 2009, p. 427). As research into this perception continued, the definition was altered to include any “honest” line of work as long as the individual was still motivated to serve the greater purpose and common good (Hunter, Dik, & Banning, 2010).

Unfortunately, psychologists regarded it not appropriate to discuss religious concepts with clients and therefore a sense of calling had to be conceptualized as a modern or secular concept (Bergin & Jensen, 1990). This ingrained the altering of the historical definition in such a way as to include a sense of purpose, direction, the desire to help and personal fulfilment (Dik, Duffy, & Eldridge, 2009; Elangovan et al., 2010; Hall & Chandler, 2005; Müller, Alliaata, & Benninghoff, 2009; Steger et al., 2011; Wrzesniewski et al., 1997). This altered definition is known as the secular view of a sense of calling and it recognizes people’s desire to contribute to the greater good of mankind (Dik & Duffy, 2009; Steger & Dik, 2010).

In line with this definition, the modern teacher's sense of calling may be viewed as the innate desire to help learners thrive and by doing that, teaching becomes socially valuable (Müller, Alliata, & Benninghoff, 2009). Finally, Duffy and Sedlacek (2007) are of opinion that two different groups exist within the bigger calling domain; the first group is individuals that experience a presence of a calling and the other group is those individuals that are actively searching for a calling.

In addition, researchers explore and propose benefits to experiencing one's work as a calling. Some benefits include increased levels of life satisfaction, zest and an overall feeling of contributing to the greater good (Müller, Alliata, & Benninghoff, 2009; Wrzesniewski et al., 1997). Furthermore, individuals with a sense of calling report the highest life- and work satisfaction as well as the lowest absenteeism rate compared to individuals with other work orientations (Wrzesniewski et al., 1997). It is therefore argued that work becomes socially valuable to the individual that experiences work as a calling – to that person, work becomes an end in itself; inextricable from the person's life (Duffy et al., 2011; Treadgold, 1999; Wrzesniewski et al., 1997). Quite recently, researchers suggested that a sense of calling must be recognised as a process in which individuals experience, maintain and seek their calling on a continuous basis (Dik, Eldridge, Steger & Duffy, 2012).

1.2.4 Meaningful work.

Meaningful work is theorised as work that is experienced as both significant and positive (meaningfulness) and has a eudemonic (growth and purpose oriented) focus (Rosso, Dekas, & Wrzesniewski, 2010). For purposes of this study, meaningful work is conceptualised as consisting of a) positive meaning in work: that captures the sense that people judge their work to matter and be meaningful, b) meaning-making through work: that is inclusive of self-directed actions in seeking meaningful work and facilitating personal growth and c) greater good motivations: that entails the desire to make a positive impact on the greater good (Dik & Duffy, 2009; Rosso et al., 2010).

Numerous theories have been proposed to explain the relationship between a sense of calling and meaningful work but it appears to be inconclusive (Dobrow, 2004). Researchers exploring meaningful work included questions on the influence of religion and other non-spiritual experiences on creating meaningful work (Dobrow, 2004; Steger, Dik & Duffy, 2012). Evidence indicated that people overall seem to approach their work as a source of

meaningfulness regardless of their religious orientation (Isaksen, 2000; Steger et al., 2012; Wrzesniewski et al., 1997). Therefore meaningful work is viewed as a major part of life (Dik & Duffy, 2009; Rosso, et al., 2010).

In line with the view that people want to experience meaningful work, Isaksen (2000) added that meaningful work results in less boredom and negative work attitude. O'Brien (1992) is of the opinion that finding meaningful work is as important to the individual as job security and a salary. This highlights the importance of understanding meaningful work because people's work attitude depends on the meaning they derive from their work (Steger et al., 2012; Wrzesniewski et al., 1997). Therefore, it can be argued that teachers who experience meaningful work will testify to lower levels of boredom and higher levels of job security. Ultimately, a more positive work attitude will result. It is imperative to address teachers' negative work attitude because it hampers progress towards successful education transformation – thus depriving learners of receiving quality education (Atkinson, 2004; Forlin, Loreman, Sharma & Earle, 2009; Müller, Alliata & Benninghoff, 2009; Rademeyer, 2013).

Little research has been done worldwide and especially in the South-African context to investigate whether teachers are more likely to experience their work as a calling as proposed by Wrzesniewski et al. (1997). Furthermore, worldwide transformation and change in education is placing increased demands on teachers, which could potentially have a negative impact on their work attitude. As previously outlined, this includes reducing their experience of work as a challenge, work as enjoyment and career decisiveness. Moreover, little research has explored the influence of meaningful work on the relationship between sense of calling and a person's work attitude. Similarly, limited research is available on whether different calling approaches, although complimentary, significantly alter the subjective experiences of work as being meaningful to the individual. Therefore the primary purpose of this study is to address the gap both in the South African literature and the international literature pertaining to the relationship between sense of calling and work attitude and the impact of meaningful work on this relationship.

The present study investigates the relationship between teachers' experience of a sense of calling and work attitude and the influence of meaningful work thereupon. This study proposes an adapted model in which the experience of meaningful work will have an influence on the relationship between experiencing work as a calling and a positive work attitude.

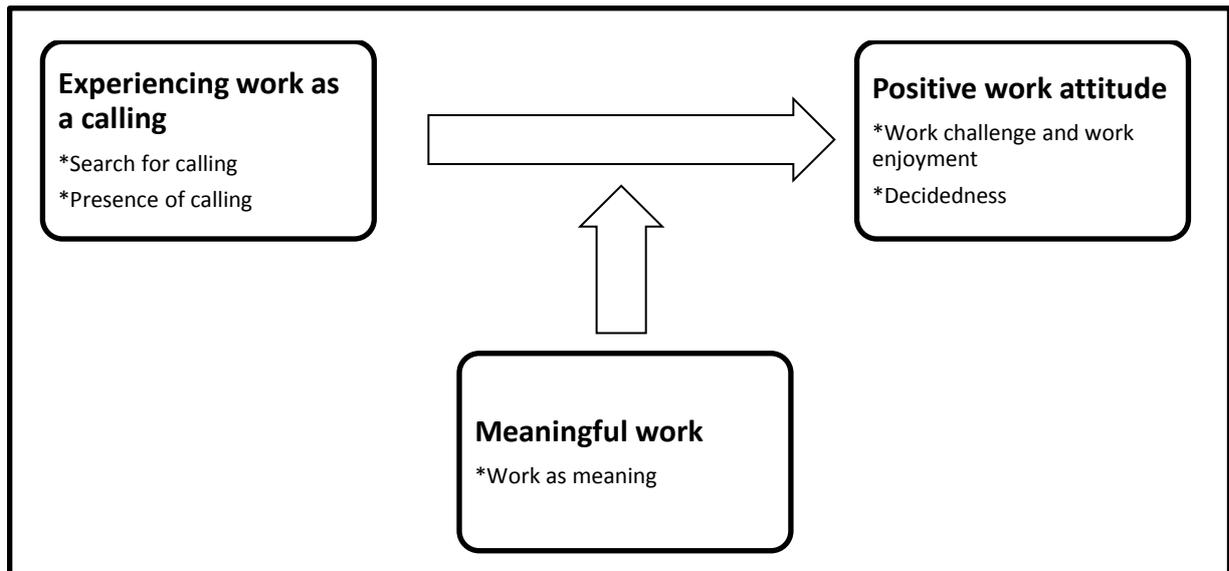


Figure 1: The hypothesised relationship between experiencing work as a calling, positive work attitude and meaningful work (adapted from Steger, et al., 2011).

Figure 1 illustrates the adapted, theoretical model for assessing the influence of meaningful work on the relationship between experiencing a sense of calling and work attitude.

1.3 Research questions

The following research questions may be formulated based on the above-mentioned research problem:

- How are sense of calling, work attitude and meaningful work conceptualised in the literature?
- Do teachers in the Fezile Dabi district experience their work as a calling?
- What is the relationship between the teachers' experience of a sense of calling and their work attitude?

- What is the influence of meaningful work on the relationship between the teachers' experience of a sense of calling and their work attitude?

1.4 Research objectives

The research objectives are divided into general objectives and specific objectives.

1.4.1 General objectives.

The general objective of this study is to investigate the impact of teachers' experience of a sense of calling on work attitude. Furthermore, it is to determine the possible influence of meaningful work on the above-mentioned relationship.

The researcher will review, investigate, evaluate and interpret existing research conducted nationally and internationally in order to set a research agenda through proposing a theoretical model of the impact of teachers' experience of a sense of calling and work attitude and the impact of meaningful work on this relationship. This theoretical model should serve as a tool to conceptualise the experience of a sense of calling and work attitude in the South African educational system. Researchers should have the opportunity to use this model to identify new research problems and contextual variables that may be of interest to South African teachers. An important objective is to place the South African body of knowledge within the broader international body of knowledge.

1.4.2 Specific objectives.

The specific objectives of this research are:

- To conceptualise a sense of calling, work attitude and meaningful work from existing literature.
- To determine whether the teachers in the Fezile Dabi district experience their work as calling.
- To investigate the relationship between teachers' sense of calling and their work attitude.
- To determine the influence of meaningful work on the relationship between the teachers' experience of a sense of calling and their work attitude.

1.5 Research method

In order to achieve the specific objectives, this research study consists of two phases, namely a literature review and an empirical study.

1.5.1 Phase 1: Literature review.

In phase 1 a literature review regarding a sense of calling, work attitude and meaningful work is conducted. The following resources will be consulted in this regard:

- Various Journal articles
- Internet search engines (Sabinet, Science Direct, EBSCOHOST)
- Electronic texts and Journals
- Textbooks
- Dissertations and theses

1.5.2 Phase 2: Empirical study.

The empirical study consists of the research design, the research participants, the research procedure, the measuring instruments and the statistical analysis.

Research design.

According to Hofstee (2006), the research design can be defined as a theoretical background outlining the method utilised in order to arrive at reliable and well-grounded conclusions.

The aim of the research design is to provide a detailed plan of how the research will be executed, who will be studied, how they will be selected to take part in the study and the information the researcher wants to gather from these individuals. In order to structure the research process, a detailed design is used to indicate how all the different parts of the project (participants, measuring instruments and statistical analysis) work in partnership to address the research questions and to minimise the potential sources of inaccuracy which might become noticeable during the research (Mouton & Marais, 1992).

To collect the data, the researcher will use a cross-sectional survey design. This entails a purposive rather than random study of a single group or event on one occasion only (de Vos,

Strydom, Fouché & Delpont, 2005; Struwig & Stead, 2001). This is an appropriate design as it will reflect the relevant characteristics of the participants within the educational sector.

The researcher will also utilise a quantitative, descriptive, explorative and explanatory design to examine the statistical relationships between the different variables empirically; thus allowing to achieve the overall purpose of the study (Babbie & Mouton, 2001; Struwig & Stead, 2001). Quantitative research involves large representative samples and moderately structured data collection procedures (Struwig & Stead, 2001).

A descriptive study can be defined as a quantitative analysis using descriptive statistics based on the data obtained from questionnaires and by doing this, the researcher can address specific research questions (Pallant, 2010). Academics argue that descriptive research aims at presenting a detailed depiction of the specific relationship, situation or social setting and its focus is on the “how” and “why” questions (de Vos et al., 2005). In this study the researcher will include descriptive statistics such as the mean, standard deviation, range of scores, skewness and kurtosis to test pre-determined assumptions.

According to Babbie and Mouton (2001), a topic is explored if the subject of the study itself is relatively new. These types of studies usually lead to insight and a better understanding and comprehension, rather than the mere collection of detailed data. These studies are reckoned essential each and every time a researcher investigates new ground.

The utilisation of this design arose as a result of the limited information within this relatively new area of interest (de Vos et al., 2005) and no evidence could be found of such research ever being conducted on teachers in South Africa. This study will therefore explore the relationship of teachers’ experience of a sense of calling and work attitude, and the influence of meaningful work on that relationship.

Explanatory studies aim to indicate causality between variables (Babbie & Mouton, 2001). In this research study, the researcher will aim to explain the formulation of teachers’ work attitude by investigating their experience of a sense of calling and the influence of meaningful work on the relationship between a sense of calling and work attitude.

Research participants.

The target population ($N = 500$) for this study will consist of teachers in the Fezile Dabi district. A non-probability (random) sample ($n = 270$) will be recruited from primary and secondary schools in the afore-mentioned educational district of South Africa. The participants will include both men and women of various ethnic backgrounds, ages and marital status. However, all participants must be proficient in English as all questionnaires will be administered in English.

Research procedure.

Permission from the Department of Education will be requested and meetings will be arranged with the various school principals. During these meetings the researcher will address issues such as confidentiality, anonymity of results along with ethical considerations. The researcher will explain the nature of the research along with the measuring instruments to be used. The researcher will also discuss the motivation and the ethical considerations of the study before handing out the questionnaires to the participants.

Consent letters will be attached to the questionnaires, along with a formal letter from the North-West University outlining the purpose of this research. This letter of consent will outline the goal of the research, the reason why this research is important, who the participants will be, how the individual will benefit as well as how the University will benefit from this research. The questionnaire will take approximately 30 minutes to complete. Data collection will take place over a period of two weeks, followed by the data analysis process. The participating schools will receive feedback on the findings of this research.

Measuring instruments.

The measuring instruments consist of four standardised measures as well as a biographical questionnaire that will be constructed by the researcher. The predictor variable, namely teachers' experience of a sense of calling, will be measured by using The Calling and Vocation Questionnaire (CVQ) developed by Dik et al. (2012). Work attitude will be measured by means of two different scales, namely a) the Work Preference Inventory (WPI) developed by Amabile et al. (1994) and b) the Career Decision Profile (CDP) developed by Jones (1989). Meaningful work will be measured by The Work and Meaning Inventory (WAMI) developed by Steger et al. (2012). To reduce participant burden, the researcher

decided to implement shorter forms of the Work Preference Inventory and the Career Decision Profile.

Biographical questionnaire.

A self-constructed questionnaire will be used to establish the biographical characteristics of the participants as well as demographic information relevant to the sample and the objectives of this research study. Participants will be asked to provide information pertaining to their race, gender, age, marital status and years of service, while still allowing for the participants to remain anonymous.

Sense of calling.

The *Calling and Vocation Questionnaire (CVQ)* (Dik et al., 2012) is a multidimensional 24-item scale that measures the presence of as well as the search for experiencing a sense of calling in an individual. Examples of items relating to the presence of a calling are: “I believe that I have been called to my current line of work” and “I see my career as a path to purpose in life”. Examples of items relating to the search for a calling are: “I am searching for a calling as it applies to my career” and “I am trying to figure out my calling in my career”. Participants rate the items from 1 (not at all true of me) to 4 (totally true of me). The internal consistency reliability coefficients (alpha coefficients) for the study done by Dik et al. (2012) were as follows: Presence-Transcendent Summons, $\alpha = 0,85$; Search-Transcendent Summons, $\alpha = 0,86$; Presence-Purposeful Work, $\alpha = 0,88$; Search-Purposeful Work, $\alpha = 0,88$; Presence-Prosocial Orientation, $\alpha = 0,88$ and Search-Prosocial Orientation, $\alpha = 0,92$.

Work attitude.

Work attitude will be measured by means of a) The Work Preference Inventory (measuring work challenge and work enjoyment) and b) The Career Decision Profile (measuring career decidedness).

The *Work Preference Inventory (WPI)* (Amabile et al., 1994) is a 30-item scale that assesses the individuals’ self-perception and motivation for their choice of work. For purposes of this study only the 7-item Challenge subscale and the 8-item Work Enjoyment subscales will be used as they are considered beneficial attitudes towards work. Examples of

the items are: “I want my work to provide me with opportunities for increasing my knowledge and skills” and “It is important for me to be able to do what I most enjoy”. Items are rated from 1 (never or almost never true of you) to 4 (always or almost always true of you). Higher scores indicate greater desire for challenge and work enjoyment respectively. Scores were only marginally reliable ($\alpha = 0,70$ for both subscales) in the study done by Amabile et al. (1994).

The *Career Decision Profile* (CDP) (Jones, 1989) is a 16-item scale that measures an individual’s status of a career decision. For purposes of this study only the three-item Decidedness scale will be used (assesses the degree to which individual felt certain about his career choice). Examples of the items are: “I have decided on the occupation I want to enter, for example electrical engineer, nurse or cook”, “I frequently have trouble making decisions” and “My future work or career is not important to me at this time”. Items are rated from 1 (strongly disagree) to 8 (strongly agree). Higher scores indicate a greater degree of certainty regarding career choice. In the study done by Jones (1989), the CDP has demonstrated reliable scores ranging from $\alpha = 0,74$ to $\alpha = 0,84$.

Meaningful work.

The *Work and Meaning Inventory* (WAMI) by Steger et al. (2012) is a 10-item scale that measures an individual’s search for, experience of meaning and purpose in life. Examples of the items are: “I have a good sense of what makes my job meaningful” and “My work helps me make sense of the world around me”. Items are rated from 1 (absolutely untrue) to 5 (absolutely true). Validity of the subscales is demonstrated with positive correlations as follows: Greater good $r = 0,78$; Positive meaning $r = 0,86$ and Meaning making through work $r = 0,85$. Reliability coefficients (alpha coefficients) recorded for the study done by Steger et al. (2012) were as follows: Positive Meaning (PM), $\alpha = 0,89$; Meaning-Making through Work (MM), $\alpha = 0,82$ and Greater Good (GG), $\alpha = 0,83$.

Statistical analysis.

The statistical analysis will be carried out with the MPlus statistical modelling program (Muthén & Muthén, 2011). In order to obtain answers to the research questions, all statistical techniques will be utilised.

Initially, the data will be coded, entered and cleaned. It is necessary to code the data into a format that is machine readable, according to Neuman (2002). The researcher should scrutinise the data, the accuracy of the coding and cleaning before it is statistically analysed and deductions made.

Descriptive statistics (means, standard deviations, skewness and kurtosis) will be used to describe the data. The Cronbach alpha coefficient will be reported as an indication of the construct reliability of the measuring instruments. Values range from 0 to 1, with higher values indicating greater reliability (Pallant, 2010). The cut-off point for coefficient alpha used will be $\alpha = 0,70$ (Nunnally & Bernstein, 1994). To determine the reliability of the different measuring instruments, inter-item correlations will also be used.

An exploratory factor analysis (EFA) will be performed to investigate the factor structure of all the measuring instruments. Confirmatory factor analysis (CFA) will be performed on the questionnaire items to determine the validity thereof.

To determine the relationships between variables, the correlations will be calculated. Pearson's product-moment correlation coefficients will be calculated to identify the relationship between experience a calling and work attitude. The cut-off point for statistical significance will be set at $p < 0.01$ (99% level of confidence). Effect sizes will be used to decide on the practical significance of the findings (Steyn, 1999). The practical significance of correlation coefficients are set with a cut-off point of $p \geq 0.30$ (medium effect) and $p \geq 0.50$ (large effect) (Cohen, 1992).

Structural equation modelling (SEM), or a full latent variable analysis is the technique widely used to analyse a wide variety of data, research designs and theoretical models. The researcher is interested in measuring and understanding the relationships among the latent, unobservable variables. The MPlus statistical package will be used to examine the latent variable model between a sense of calling, work attitude and the impact of meaningful work on the above-mentioned relationship. The maximum likelihood method will be used.

The hypothesised model will be tested statistically to determine the extent to which it proved consistent with the data. Among the fit indices produced by the MPlus program is the Chi-square statistic (χ^2), which is the test of absolute fit of the model. The goodness-of-fit indices, such as the Standardized Root Mean Square Residual (SRMR), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI) and the Root Mean Square Error of Approximation (RMSEA) will also be reported in this study.

Ethical considerations.

Conducting research is an ethical enterprise. Research ethics provide researchers with a code of moral guidelines on how to conduct research in a morally acceptable way (Struwig & Stead, 2001). During the recruitment process, no direct or subtle coercion will occur therefore participation in this research will be completely voluntarily. The researcher will explain the proposed study to all possible participants in a manner that avoids confusion and possible emotional harm and clarifies the implications of involvement in the study. Participants will not receive any benefits or compensation for taking part in the study. Furthermore, the researcher will respect the rights and dignity of all participants. This includes respecting the privacy, confidentiality and autonomy of the research participants. The researcher will also be mindful of cultural and individual differences among people, such as age, gender, race, ethnicity, religion, language and socio-economic status. The researcher will not knowingly discriminate against people on the basis of such factors. By the use of questionnaires the participant's confidentiality will be ensured since responses will be kept anonymous. The proposed study will be undertaken in such a way that it ensures professionalism and that it is done with adequate supervision from an experienced researcher (de Vos et al., 2005).

1.6 Chapter division

The chapters in this mini-dissertation are presented as follows:

- Chapter 1: Introduction, problem statement, research objectives, research design and research methodology.
- Chapter 2: Research article.
- Chapter 3: Conclusions, limitations and recommendations.

1.7 Chapter summary

This chapter extensively outlined the challenges the South African educational system is faced with in order to highlight the purpose of this study. A detailed literature review was conducted on the constructs to be researched. The variables included in this study were: experience a sense of calling, work attitude and meaningful work. These variables were defined and the relationships between the variables were explored. Research questions were then formulated and from these questions, objectives for this research study were set. The different models and theories applicable to the study were investigated. The research design was defined. The nature of the participants and the procedure used to collect the data were described. Possible issues concerning confidentiality were addressed. Brief outlines of the measuring instruments were stated and the statistical techniques employed to test the research hypotheses were highlighted. An outline of the chapter divisions in this mini-dissertation concluded this chapter.

1.8 References

- Amabile, T. M., Hill, K. G., Hennessey, B. A., & Tighe, E. M. (1994). The Work Preference Inventory: Assessing intrinsic and extrinsic motivational orientations. *Journal of Personality and Social Psychology*, *66*, 950-976.
- Atkinson, D. (2004). Theorising how student teachers form their identities in initial education. *British Educational Research Journal*, *30*(3), 379-394.
- Babbie, E., & Mouton, J. (2001). *The practice of social research*. Cape Town, South Africa: Oxford University Press South Africa.
- Bergin, A. E., & Jensen, J. P. (1990). Religiosity of psychotherapists: A national survey. *Psychotherapy*, *27*, 3-7.
- Berliner, D. C. (2002). Educational Research: The hardest science of all. *Educational Researcher*, *31*(3), 18-20.
- Carl, A. E. (2002). *Teacher empowerment through curriculum development* (2nd ed.). Landsowne, South Africa: Juta & Company.
- Chambers, D., & Forlin, C. (2010). Initial teacher education and inclusion: A triad of inclusive experiences. In C. Forlin (Ed.), *Teacher education for inclusion: Changing paradigms and innovative approaches* (pp. 74-83). Abingdon: Routledge.
- Clair, N., & Adgers, C. T. (2001). *Professional development for teachers in successfully diverse rituals*. Eric Digest, EDO-FL-99-08.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155-159.
- De Vos, A. S., Strydom, H., Fouché, C. B., & Delpoort, C. S. L. (2005). *Research at grass roots for the social sciences and human service professions* (3rd ed.). Pretoria, South Africa: Van Schaik Publishers.
- Department of Basic Education and Higher Education and Training (2011). *Integrated Strategic Planning Framework for Teacher Education and Development in South Africa: 1011-1025*. Pretoria, South Africa: Government Printer.
- Department of Education (2001). *Building an inclusive education and training system – Education White Paper 6” special needs education*. Pretoria, South Africa: Government Printer.
- Dictionary.com (2010). Retrieved January, 30, 2012, <http://www.dictionary.reference.com>.
- Dik, B. J., & Duffy, R. D. (2009). Calling and vocation at work: Definitions and prospects for research and practice. *The Counseling Psychologist*, *37*, 424-450.

- Dik, B. J., Duffy, R. D., & Eldridge, B. M. (2009). Calling and vocation in career counselling: Recommendations for promoting meaningful work. *Professional Psychology: Research and Practice, 40*, 625-632.
- Dik, B. J., Eldridge, B. M., Steger, M. F., & Duffy, R. D. (2012). Development and validation of the Calling and Vocation Questionnaire (CVQ) and Brief Calling Scale (BCS). *Journal of Career Assessment, January 24, 2012*.
- Dobrow, S. (2004). *Extreme subjective career success: A new integrated view of having a sense of calling*. Best Paper Proceedings of the Academy of Management Conference held at Harvard Business School. Boston, MA: Academy of Management.
- Duffy, R. D., Dik, B. J., & Steger, M. F. (2011). Calling and work-related outcomes: Career commitment as a mediator. *Journal of Vocational Behavior, 78*, 210-218.
- Duffy, R. D., & Sedlacek, W. E. (2007). The presence of and search for a calling: Connections to career development. *Journal of Vocational Behavior, 70*, 590-601.
- EduSwift South Africa (2010). *Next generation school management systems*. Retrieved February, 01, 2012, from <http://www.fisteducation.co.za>.
- Elangovan, A. R., Pinder, C. C., & McLean, M. (2010). Callings and organizational behaviour. *Journal of Vocational Behavior, 76*, 428-440.
- Eloff, I., & Kgwete, L. K. (2007). *South African teachers' voices on support in inclusive education*. Retrieved September 10, 2011, from <http://www.thefreelibrary.com//print/printarticle.aspx?id=168163366>.
- Engelbrecht, P., Oswald, M., & Forlin, C. (2006). Promoting the implementation of inclusive education in primary schools in South Africa. *British Journal of Special Education, 33*, 121-129.
- Forlin, C., Loreman, T., Sharma, U., & Earle, C. (2009). Demographic differences in changing pre-service teachers' attitudes, sentiments and concerns about inclusive education. *International Journal of Inclusive Education, 13*(2), 195-209.
- Hall, D. T., & Chandler, D. E. (2005). Psychological success: When the career is a calling. *Journal of Organizational Behavior, 26*, 155-176.
- Hirschi, A. (2011). Calling in career: A typological approach to essential and optional components. *Journal of Vocational Behavior 79*(1), 60-73.
- Hofstee, E. (2006). *Constructing a good dissertation*. Johannesburg, South Africa: Interpak Books (Pty) Ltd.
- Hunter, I., Dik, B. J., & Banning, J. (2010). College students' perceptions of calling in work and life: A qualitative investigation. *Journal of Vocational Behavior, 76*, 178-186.

- Isaksen, J. (2000). Constructing meaning despite the drudgery of repetitive work. *Journal of Humanistic Psychology, 40*, 84-107.
- Jackson, L. T. B., & Rothmann, S. (2005). An adapted model of burnout for educators of South Africa. *South African Journal of Education, 25*(2), 100-108.
- Jackson, L. T. B., & Rothmann, S. (2006). Occupational stress, organisational commitment, and ill-health of educators in the North West Province. *South African Journal of Education, 26*(1), 75-95.
- Jackson, L. T. B., Rothmann, S., & van der Vijver, F. J. R. (2006). A model of work-related well-being for educators in South Africa. *Stress and Health, 22*, 263-274.
- Jerlinder, K., Danermark, B., & Gill, P. (2010). Swedish primary-school teachers; attitudes to inclusion – the case of PE and pupils with physical disabilities. *European Journal of Special Needs Education, 25*, 45-57.
- Jones, L. K. (1989). Measuring a three-dimensional construct of career indecision among college students: A revision of the Vocational Decision Scale: The Career Decision Profile. *Journal of Counseling Psychology, 36*, 477-486.
- Kuyini, A. B., & Desai, I. (2007). Principals' and teachers' attitudes and knowledge of inclusive education as predictors of effective teaching practices in Ghana. *Journal of Research in Special Educational Needs, 2*, 104-113.
- Lumadi, M. W. (2008). Teachers' exodus in South African schools: A smoke with burning fire. *Contemporary Issue in Education Research – Third Quarter, 1*(3), 31-40.
- Martinez, R. S. (2003). Impact of a graduate class on attitudes toward inclusion, perceived teaching efficacy and knowledge about adapting instruction for children with disabilities in inclusive settings. *Teacher Development, 3*, 473-494.
- Motshekga, A. (2011). Focus schools. *Keynote address at SAOU Symposium on Focus Schools held at North West University, Potchefstroom, 15 October 2011*. Potchefstroom, South Africa: Department of Basic Education.
- Mouton, J., & Marais, H. C. (1992). *Basic concepts: methodology for the behavioural sciences*. Pretoria: Human Sciences Research Council.
- Müller, K., Alliata, R., & Benninghoff, F. (2009). Attracting and retaining teachers: A question of motivation. *Educational Management Administration & Leadership, 37*, 574-599.
- Muthén, B., & Muthén, L. (2011). *MPlus* [computer software]. Los Angeles, CA: Muthén & Muthén.

- Naicker, S. (2006). From policy to practice: a South African perspective on implementing inclusive education policy. *International Journal of Whole Schooling, 1*, 1-6.
- Nel, N., Muller, H., Hugo, A., Helldin, R., Backmann, O., Dwyer, H., & Skarlind, A. (2011). A comparative perspective on teacher attitude-constructs that impact on inclusive education in South Africa and Sweden. *South African Journal of Education, 31*, 74-90.
- Neuman, W. L. (2002). *Social research methods. Qualitative and quantitative approaches..* Boston, MA: Pearson Education Company.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory (3rd ed.)*. New York, NY: McGraw-Hill.
- O'Brien, G. E. (1992). Changing meanings of work. In J. F. Hartley, & G. M. Stephenson (Eds.), *Employment relations: The psychology of influence and control at work* (p. 44-66). Oxford, UK: Blackwell.
- Pallant, J. (2010). *SPSS Survival Manual (4th ed.)*. New York, NY: McGraw-Hill.
- Parry, G. H. (2006). *Recrafting work: A model for workplace engagement and meaning* (Unpublished doctoral thesis). University of Pennsylvania, Philadelphia.
- Rademeyer, A. (2013, April 2). Onnies word nou dopgehou. *Die Burger, 1*.
- Rosso, B. D., Dekas, K. H., & Wrzesniewski, A. (2010). On the meaning of work: A theoretical integration and review. *Research in Organizational Behavior, 30*, 91-127.
- Staw, B. M., & Ross, J. (1985). Stability in the midst of change: A dispositional approach to job attitudes. *Journal of Applied Psychology, 70*, 469-480.
- Steger, M. F., & Dik, B. J. (2010). Work as meaning. In P. A. Linley, S. Harrington, & N. Page (Eds.), *Oxford handbook of positive psychology and work*. UK: Oxford University Press.
- Steger, M. F., Dik, B. J., & Duffy, R. D. (2012). Measuring meaningful work: The Work and Meaning Inventory (WAMI). *Journal of Career Assessment, 00(0)*, 1-16.
- Steger, M. F., Pickering, N. K., Shin, J. Y., & Dik, B. J. (2011). Calling in Work: Secular or Sacred? *Journal of Career Assessment, 18(1)*, 82-96.
- Steyn, H. S. (1999). *Praktiese betekenisvolheid: Die gebruik van effek groottes*. [Practical significance: The use of effect sizes]. Wetenskaplike bydraes – Reeks B: Natuurwetenskappe Nr. 117. Potchefstroom: Potchefstroomse Universiteit vir Christelike Hoër Onderwys (nou Noordwes Universiteit).
- Struwig, F. W., & Stead, G. B. (2001). *Planning, designing and reporting research*. Cape Town, South Africa: Pearson Education.

- Talmor, R., Reiter, S., & Feigin, N. (2005). Factors relating to regular education teacher burnout in inclusive education. *European Journal of Special Needs Education, 2*, 215-229.
- Timaeus, I. M., Simelane, S., & Letsoalo, T. (2011). *Poverty, race, and children's progress at school in South Africa*. Retrieved January, 30, 2012, from [http:// www.pan.org.za](http://www.pan.org.za).
- TIP: Concepts (2010). Retrieved September, 11, 2011, from <http://www.tip.psychology.org/attitude.html>.
- Treadgold, R. (1999). Transcendent vocations: Their relationship to stress, depression, and clarity of self-concept. *Journal of Humanistic Psychology, 39*, 81-105.
- Wrzesniewski, A., McCauley, C., Rozin, P., & Schwartz, B. (1997). Jobs, careers, and callings: People's relations to their work. *Journal of Research in Personality, 31*, 21-33.
- Yero, J. L. (2011). *Reforming or transforming education: More than just words*. Retrieved November, 01, 2011, from <http://www.teachersmind.com>.
- Zimbardo, P. G., & Leippe, M. (1991). *The psychology of attitude change and social influence*. New York, NY: McGraw-Hill.

Chapter 2: Research article

Experiencing a sense of calling: The influence of meaningful work on teachers' work attitudes

Abstract

This article expands understanding of the relationship between experiencing a sense of calling and work attitude and determines the influence of meaningful work on this relationship. Data revealed a significant relationship existed between the experience of a sense of calling and work attitude. Results supported that meaningful work has an indirect effect on this relationship. This study indicated that positive work attitude is enhanced by the addition of meaningful work. The Department of Education will have to take cognisance of ways to create meaningful work if they wish to succeed in educational transformation, due to the indirect effect (via meaningful work) on the relationship between the experience of a calling and work attitude of teachers. Future studies should include longitudinal studies to validate the adapted model and identify more predictors of positive work attitude.

Keywords: Experience a sense of calling, work attitude, meaningful work and teachers

Introduction

Over the past decades, major changes have taken place in the workplace and even more so in education worldwide. The increased use of technology, organisational restructuring and changes in work conditions has radically transformed the nature of education (Rademeyer, 2013; Sparks, 2001). The South African education system, similar to the rest of the world, needs to adapt to these major changes because it is recognised as one of the essential pillars in society as it is not only shaping a future generation, but also generations to follow (EduSwift South Africa, 2010; Motshekga, 2011; Timaeus, Simelane, & Letsoalo, 2011). Although education has been studied extensively worldwide, the educational system in South Africa has been investigated to a much lesser extent.

Inequality and a sub-standard system have branded South African education. The extension of a quality education to all South Africans was hindered (Hammett, 2007). This view is shared by the international community that rated the quality of South Africa's education as 133rd out of 144 countries (World Bank, 2012). From this rating it is evident that the educational system lacks the standards and transformation towards quality education for all.

Professor Stefan Schirmer, from the Centre for Development and Enterprise, argues that the "South African schooling system fails to provide major sections of society with adequate quality education." (SAPA, 2012a) This viewpoint is shared by Ross Hill, principal of Leap 4, a private school in Diepsloot informal settlement. He is of the opinion that the majority of South Africa's learners still receive education in the "disaster of a public education system" (SAPA, 2012a). These arguments are supported by a report released by The World Bank indicating that enrolment figures for private primary schools increased by 58% and enrolment figures for public primary schools only increased by 10% (World Bank, 2012). It can therefore be argued that the general public prefers to educate their children in the private school system as opposed to the public system that fails to deliver quality education (Yero, 2011).

It is essential to mention that quality education is the enrichment of cognitive skills through the school experience. The minds of the younger generation must be trained to think because only then can these children positively contribute to society (Lolwana, 2007). In order to achieve the transformational vision of quality education to all, it is important to

explore some challenges that are mentioned as being counterproductive for successful learning to take place (Carl, 2002; Engelbrecht, Oswald, & Forlin, 2006; Naicker, 2006; Nel et al., 2011). These challenges manifest not only worldwide but also in South Africa at various levels ranging from national level to the basic, every-day, classroom challenges (Lumadi, 2008).

Challenges experienced towards quality education

Some of the challenges contributing highly to the educational crisis are: inadequate and skewed allocation of resources resulting in rural schools operating without textbooks, electricity, running water and ablution facilities; a poorly defined career path without a transparent promotion system; the HIV/AIDS pandemic that currently reached about 50% of the sexually active population in South Africa; contractual employment that results in teachers not enjoying the basic rights of employment such as annual salary increases, a medical aid and a pension scheme, thus leading to demotivation, underperformance and a negative attitude towards the profession; unattractive remuneration even after the Minister of Education had revised the current salary scales (Clair & Adgers, 2001; Lumadi, 2008; Talmor, Reiter & Feigin, 2005).

Additional challenges hindering transformation of the educational system in South Africa are violence and teacher strikes (Jackson & Rothmann, 2005; Jackson & Rothmann, 2006; Jackson, Rothmann & van der Vijver, 2006; Rademeyer, 2013). Recently, teachers at a primary school in North West threatened to embark on strike action if the education department fails to listen to their grievances about the school principal's poor management skills (SAPA, 2012c).

Adding to all the challenges mentioned, a variety of classroom-specific challenges are experienced that undermine the culture of learning and overall discipline (Morrison, 2002; SAPA, 2012b). A major complaint is the overcrowded classrooms with abnormally high ratios of learners to teachers (Morrison, 2002). The Department of Basic Education (2010) released a report with staggering statistics: the average ratio of learners to teachers is ranging from 29,3 learners up to 120 learners to one teacher (Lumadi, 2008). Teachers acknowledged that they find it difficult to control such large classes and therefore they are not able to pay attention to any individual learner, let alone take time to assure that all learners understand the work and that quality education takes place (Lumadi, 2008).

Educational transformation

In order to address the pertinent issue of quality education, the South African government introduced transformational policies. However, recent statistics indicate that the illiteracy rate currently stands at 18% of adults over 15 years of age (about 9 million adults are not functionally literate). The reason for this poor literacy rate lies at the door of the poor quality of the primary and secondary education received (Department of Basic Education, 2012; Rademeyer, 2013). Illiteracy is also pertinent in the younger population. Research revealed that a vast majority of grade 7 (primary school) learners are unable to read and understand basic material such as newspaper articles (Fleisch, 2007). This startling statistical evidence communicates very clearly that a problem exists within the education system (Fleisch, 2007).

One of the reasons for failure to achieve a sound and successful education system is the quality of teaching that takes place in the classroom (Carl, 2002). Teachers rely on highly qualified and effective colleagues, the best designed curricula and the most reliable assessment methods possible as modern education is well grounded in research from which the best possible, evidence-based practices are developed (Berliner, 2002). Ross Hill (principal at Leap 4) emphasises that South Africa has some of the best curricula. However, the “weak link” in the educational system is teachers that are poorly trained and lack the skills, and even worse, the motivation to implement the curriculum in the classroom (SAPA, 2012a).

The South African government allocated large amounts of money to transform the educational system since key findings indicated that well-written, sound policies alone do not ensure successful transformation in education (Kuyini & Desai, 2007). Compared to countries of similar size, education in South Africa receives about 20% of the total state expenditure (SA info, 2012). This represents 5,3% of the total GDP of the country, yet the “disastrous educational system in South Africa” continuous to exists, despite the fact that large amounts of money are spent annually on this issue (Jansen, 2012; SAPA, 2012a). Hence government embarked on a strategy for improving the work experience of teachers (Department of Basic Education, 2012).

The envisaged success of this turn-around strategy depends primarily on teachers being in the classrooms, every day, doing what they are supposed to be doing – teaching the learners (Jansen, 2007). However, recently learners at an Eastern Cape Secondary School complained

that teachers often arrive late at school, they leave early or that teachers are absent without any substitutes (SAPA, 2012d). This type of behaviour from teachers seriously compromises the delivery of quality education.

Competent, motivated and adequately skilled teachers is a vital component in the transformation of the educational system (Müller, Alliata & Benninghoff, 2009). In order to nurture the young minds, teachers are placed firmly at the centre of implementing government's vision of quality education by implementing the best curriculum (Department of Basic Education and Higher Education and Training, 2011; EduSwift South Africa, 2010, Jerlinder, Danermark & Gill, 2010).

Berliner (2002) is of the opinion that research is mostly done on the observable behaviour of teachers. Consequently, the underlying individual attitude, belief and social structures that unconsciously drive the observable behaviours remain unexamined, and therefore unchanged. True transformation necessitates changing the underlying form, not merely rearranging the existing observable behaviour (Berliner, 2002).

Work attitude

According to Chambers and Forlin (2010) and Nel et al. (2011), an attitude is a tendency of an individual to react to a certain object, be it a person, idea or situation. This reaction can either be positive or negative and is based upon previous, personal experiences (TIP: Concepts, 2010). Therefore an attitude can change as the experience of the individual changes (Nel et al., 2011) or it can be adjusted as implicit learning takes place (Zimbardo & Leippe, 1991).

Many teachers in South Africa are of the opinion that they are ill prepared to meet the needs of the diverse learners in their classrooms (Lumadi, 2008), resulting in the development of a negative attitude towards the teaching profession (Eloff & Kgwete, 2007). Moreover, the outcomes-based curriculum as well as the newly announced national Curriculum and Assessment Policy Statement (CAPS) place additional demands on the already negative workforce (Department of Basic Education, 2012; Talmor et al., 2005). Furthermore, Dr Lolwana (2007) emphasised that teachers lack the capacity to work with, understand and interpret the curriculum and therefore the teachers are unlikely to be productive in delivering quality education. The South African teachers therefore find

themselves overwhelmed by an excessive workload which includes classroom activities, extra-mural activities as well as administrative functions, resulting in poor work performance and a negative work attitude (Lumadi, 2008).

The importance of the teacher's work attitude is reiterated in order to ensure successful transformation and the delivery of quality education to learners (Department of Education, 2001; Jerlinder et al., 2010; Kuyini & Desai, 2007; Nel et al., 2011). A negative teacher attitude is perceived as not conducive to quality education. Nel et al. (2011) concluded that only a positive attitude can sustain quality education.

In the face of these arguments, teachers remain the curriculum agents in the classroom and their work attitude will either foster optimal teaching and learning or hinder growth (Carl, 2002). Adding to this, it is reported that the teachers' intentions and behaviour in the classroom are directly influenced by their work attitude (Chambers & Forlin, 2010). From the above-mentioned it is evident that further research needs to be done on ways to positively change the teachers' work attitudes (Lumadi, 2008).

Recent studies propose that work attitude not simply relates to but also significantly predicts career or work satisfaction (Dik & Duffy, 2009; Dik, Duffy & Eldridge, 2009; Steger & Dik, 2010). Notably, work satisfaction varies substantially from person to person (Staw & Ross, 1985). This variation in work satisfaction left contemporary researchers to debate that the personal experience of work satisfaction and meaningful work may also influence people's work attitude (Hall & Chandler, 2005). If teachers experience meaningful work, their attitude towards teaching will be more positive. This will in turn increase commitment and engagement, which are important factors in achieving high-quality educational outcomes (European Agency for Development in Special Needs Education, 2010).

McKinsey (2007) points out that the educational systems must "get the right people to become teachers to ensure that every child is able to benefit from excellent instruction" (p. 37). Therefore it can be argued that quality education can only be achieved once positive, high-performance, quality teachers are employed. There appears to be broad consensus concerning the benefits of teachers' positive work attitudes (Andrews, 2002; Reinke & Moseley, 2002; Pearson, 2007). A positive teacher attitude directly affects the teacher's ability to create a classroom atmosphere that will be conducive to learning (Cook, 2002; Meijer, Soriano & Watkins, 2006; Silverman, 2007). Previous studies determined that by

inadequately addressing a negative teacher attitude, progress towards quality education is severely hampered (Atkinson, 2004, Forlin, Loreman, Sharma & Earle, 2009).

This study conceptualises work attitude in terms of a) work challenge and work enjoyment (Amabile, Hill, Hennessey & Tighe, 1994) which is an indication of the individual's self-perception and motivation for choice of work and b) career decidedness (Jones, 1998) which indicates the degree to which the individual felt certain about his/her career choice. Research focusing on teachers and their work attitude indicates that teachers are more positive towards their profession if 1) they feel supported by management and parents in facing daily challenges, 2) the school atmosphere and learner behaviour are pleasant and 3) a career development process is in place that will result in desirable career outcomes such as job security, satisfaction and commitment (Müller, Alliaata & Benninghoff, 2009). Therefore a positive work attitude is believed to increase the delivery of quality education. In addition, if teachers perceive what they are doing as meaningful, they will consistently try to change for the better (positively).

Up to now, emphasis was only on the importance of a teacher's work attitude in order to deliver quality education in the classroom. However, a very prominent relationship exists between work attitude and the teacher's experience of a calling, which is discussed in the subsequent section.

Experience of a sense of calling

In the opinion of Wrzesniewski, McCauley, Rozin, and Schwartz (1997), a sense of calling relates to a person's motivation to perform his duties, especially in social occupations such as teaching. However, researchers report incongruent definitions of what does, or does not constitute a sense of calling (Hirschi, 2011). Elangovan, Pinder, and McLean (2010) as well as Dik and Duffy (2009) point out that, historically, the origin of a sense of calling lies within the religious framework where the individual is said to receive a "transcendent summons, experienced as originating beyond the self, to approach a particular life role" (in this case work) (Dik & Duffy, 2009, p. 427). As research into this concept continued, the definition was altered to include any "honest" line of work as long as the individual was still motivated to serving the greater purpose and common good (Hunter, Dik & Banning, 2010). This change in the definition was motivated from psychologists' notion to regard it not

appropriate to discuss religious concepts with clients and therefore a sense of calling had to be conceptualized as a more modern and secular idea (Bergin & Jensen, 1990)

This altered the historical definition in such a way as to include a sense of purpose, direction, the desire to be helpful and personal fulfilment (Dik et al., 2009; Elangovan et al., 2010; Hall & Chandler, 2005; Steger, Pickering, Shin & Dik, 2011; Wrzesniewski et al., 1997), which became known as the secular view of a sense of calling and it recognizes people's desire to contribute to the greater good (Dik & Duffy, 2009; Steger & Dik, 2010). Personal fulfilment and serving the greater good is viewed as important factors of a person's work experience, regardless of the individual's religious views (Hall & Chandler, 2005).

Duffy and Sedlacek (2007) are of opinion that two different calling groups exist within the bigger calling domain; the first group is individuals that experience a presence of a calling and the other group is those individuals that are actively searching for a calling. The teachers that report a presence of a calling have a good sense of their interests and abilities are more likely to be mature in their career development process and they are more comfortable in making career decisions. Conversely, teachers that report a search for calling tended to be slightly more indecisive and slightly more likely to lack a clear career development process; these individuals are less comfortable in making career decisions and are markedly less clear about their interests and abilities (Duffy & Sedlacek, 2007). However, Dik, Eldridge, Steger and Duffy (2012) suggest that a sense of calling must be comprehended to be a process in which the individual experiences, maintains and seeks his/her callings on a continuous basis.

Research studies explore and propose some benefits to experiencing one's work as a calling which include increased levels of life satisfaction, zest and an overall feeling of contributing to the greater good (Wrzesniewski et al., 1997). Furthermore, individuals with a sense of calling are said to report the highest life- and work satisfaction as well as the lowest absenteeism rate compared to individuals with other work orientations (Wrzesniewski et al., 1997). It is therefore argued that work becomes socially valuable to the individual that experiences work as a calling: work becomes an end in itself; inseparable from the person's life (Duffy, Dik & Steger, 2011; Treadgold, 1999; Wrzesniewski et al., 1997).

One important finding is that individuals that experience work as a calling find it easier to change their attitude towards their work (Hall & Chandler, 2005). Recent studies support this and added that people that approach their work as a calling generally testify to having a more

positive work attitude (Duffy et al., 2011; Elangovan et al., 2010; Hall & Chandler, 2005; Steger et al., 2011). This caused renewed interest in the once valued notion of experiencing work as a calling (Steger et al., 2011).

The different views of a sense of calling necessitated further research to develop a better understanding of what exactly creates meaningful work for the individual and how the individual's sense of calling influences the experience of meaningful work. Since meaningful work is viewed as a major part of life (Dik & Duffy, 2009; Rosso, Dekas & Wrzesniewski, 2010), it is necessary to conceptualise this notion.

Meaningful work

Meaningful work is work that is experienced as both significant and positive (meaningfulness) and has an eudemonic (growth and purpose oriented) focus (Rosso et al., 2010). For purposes of this study, meaningful work is conceptualised as consisting of a) positive meaning in work: that captures the sense that people judge their work to matter and be meaningful, b) meaning-making through work: that is inclusive of self-directed actions in seeking meaningful work and facilitating personal growth and c) greater good motivations: that entails the desire to make a positive impact on the greater good (Dik & Duffy, 2009; Rosso et al., 2010).

In line with this view that people wish to experience meaningful work, Isaksen (2000) added that meaningful work results in less boredom and a less negative work attitude. O'Brien (1992) is of the opinion that finding meaningful work is as important to the individual as job security and a salary. This highlights the importance of understanding meaningful work because people's work attitude depends on the meaning they derive from their work (Steger, Dik & Duffy, 2012; Wrzesniewski et al., 1997). In the light of renewed interest in this subtle relationship, the afore-mentioned constructs will be explored in more detail from a South African point of view.

Relationships between sense of calling and work attitude of teachers as well as the influence of meaningful work on this relationship

Wrzesniewski et al. (1997) are of the opinion that teachers are more likely to experience their work as a calling. However, little research has been done worldwide and especially in the South-African context, to investigate this perception. Furthermore, worldwide transformation and change in education is placing increased demands on teachers, which could potentially have a negative impact on their work attitude. As previously outlined, this includes reducing their experience of work as a challenge, work enjoyment and career decisiveness. Moreover, little research has explored the influence of meaningful work on the relationship between sense of calling and a persons' work attitude.

Therefore the primary purpose of this study is to address the gap both in the South African literature and the international literature pertaining to the relationship between experiencing a sense of calling and work attitude as well as the influence of meaningful work on that relationship.

As illustrated in Figure 1, teachers' work attitude may indirectly be influenced by meaningful work. This model is adapted from the empirical model used by Steger et al. (2011). The adapted model will be applied in this study to investigate teachers' work attitude.

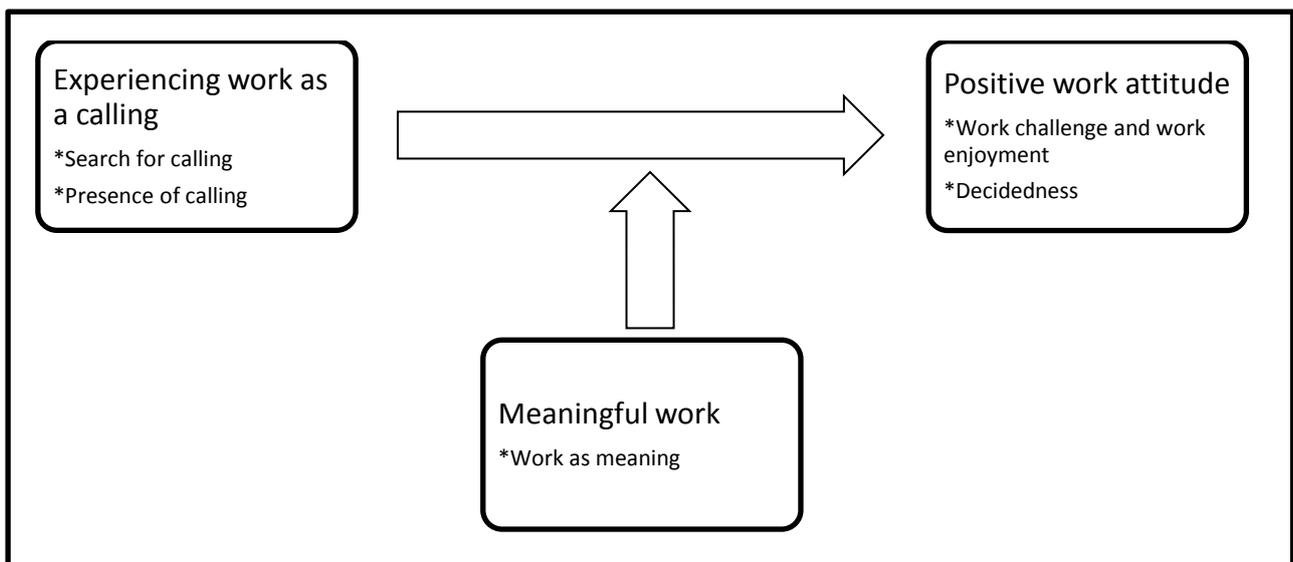


Figure 1: The hypothesised relationship between the experience of work as a calling and positive work attitude and the influence of meaningful work on this relationship (adapted from Steger et al., 2011)

Research questions and hypotheses

Based on the discussion above, the following research questions were formulated:

- Do teachers in die Fezile Dabi district experience their work as a calling?
- What is the relationship between the teacher's experience of a sense of calling and their work attitude?
- What is the influence of meaningful work on the relationship between the teachers' experience of a sense of calling and their work attitude?

The following hypotheses are formulated in order to answer the research questions:

Hypothesis 1: Teachers in the Fezile Dabi district experience their work as a calling.

Hypothesis 2: There is a significant positive relationship between the experience of a sense of calling and a positive work attitude among teachers in the Fezile Dabi district.

Hypothesis 3: The relationship between the experience of a sense of calling and work attitude among teachers in the Fezile Dabi district is indirectly influenced by meaningful work.

Research design

Research approach

This research was conducted by means of quantitative methodology to assess the different variables. Questionnaires, as a quantitative method of gathering data, bear the following advantages (Bernard, 2012): Questionnaires secure anonymity of the participants, questionnaires are less costly than interviewing a large number of people and questionnaires are a quick and effective method to gather information from a vast number of participants.

The researcher used a non-probability sample in the form of a purposive, convenience sample. The reasoning behind it being the accessibility of the respondents, their availability as well as it being less time consuming and relatively inexpensive to gather the primary data. A sample of the population was taken at a particular point in time and the sample was evaluated on various constructs at the same time (Shaughnessy, Zechmeister & Zechmeister, 2003; Welman & Kruger, 2001).

Research method

Participants and procedure.

The participating schools were selected from those in the Fezile Dabi district. The relevant authorisation from the Free State Department of Education was obtained before data collection. The following selection criteria were used to determine which participants would be included in the sample: Teachers working at the selected schools, who are proficient in English and are willing to participate in the research and willing to give written informed consent after having been informed about the purpose of this study.

Table 1

Characteristics of the Participants (n = 270)

Item	Category	Frequency	Percentage
Age	24 years and younger	19	7,2
	25-35 years	62	23,6
	36-45 years	58	22,2
	46-55 years	90	34,5
	56 years and older	29	11,0
	Missing values	4	1,5
Gender	Female	203	77,5
	Male	58	22,1
	Missing values	1	0,4
Ethnicity	English	12	4,6
	Afrikaans	185	70,6
	Sotho	49	18,7
	Xhosa	5	1,9
	Zulu	6	2,2
	Tswana	1	0,4
	Indian	2	0,8
	Other	0	0
	Missing values	2	0,8
	Experience	<5 years	45
5-9 years		52	19,8
10-14 years		20	7,6
>15 years		144	55
Missing values		1	0,4

Informed consent was obtained from principals and teachers individually. Participation was voluntary and confidentiality was maintained at all times. Response was anonymous. A total of 500 questionnaires was distributed, of which 270 were returned of which eight were invalid (response rate = 54%). Table 1 displays the characteristics of this representative sample of the population.

The majority of the participants were between 46 and 55 years of age (34,5%) and mostly female (77,5%). Most of the respondents were Afrikaans speaking (70,6%) and a huge number of the respondents had more than 15 years' teaching experience (55%).

Measuring instruments.

The three main concepts were latent (unobserved) variables that were indirectly inferred from multiple observed measures (indicators). The following measuring instruments were used in the empirical study:

Sense of calling was measured by the *Calling and Vocation Questionnaire (CVQ)* as developed by Dik et al. (2012). This multidimensional, 24-item scale was used to measure 1) the presence of a calling (individuals that perceive that they currently experience a sense of calling) as well as 2) the search for a sense of calling (individuals may not currently experience a sense of calling but they are actively seeking one). Response options ranged from 1 (not at all true of me) to 4 (totally true of me). Examples of items relating to the presence of a calling are: "I believe that I have been called to my current line of work" and "I see my career as a path to purpose in life". Examples of items relating to the search for a calling are: "I am searching for a calling as it applies to my career" and "I am trying to figure out my calling in my career". Reliability was found to be adequate with Cronbach alpha coefficients of $\alpha = 0,90$ for CVQ Presence and $\alpha = 0,91$ for CVQ Search respectively (Dik et al., 2012). This study reported acceptable Cronbach alpha coefficients of $\alpha = 0,89$ (CVQ Presence) and $\alpha = 0,84$ (CVQ Search) respectively.

Work attitude was divided into two subsections that were measured with different questionnaires. The first subsection measures work challenge and work enjoyment: The *Work Preference Inventory (WPI)* developed by Amabile et al. (1994), consists of 30 items, divided into two sub-scales. This questionnaire was used to determine the working adult's self-perception and motivation towards the choice of work. Response options ranged from 1 (never or almost never true of you) to 4 (always or almost always true of you). Sample items include: "I want my work to provide me with opportunities for increasing my knowledge and skills" and "It is important for me to be able to do what I most enjoy". Amabile et al. (1994) reported a Cronbach alpha coefficient for work enjoyment to be $\alpha = 0,67$ and for work

challenge to be $\alpha = 0,73$. In this study the Cronbach alpha coefficient measured for the combined questionnaire was reported as $\alpha = 0,82$

The second subsection of work attitude was measured by means of The *Career Decision Profile* (CDP) (Jones, 1989). This is a 16-item scale that is used to determine whether the individual thinks decisively about his career choice. A three-item questionnaire extracted from the original questionnaire was used to measure decidedness (which assesses the degree to which the individual felt certain about his career choice). Response options ranged from 1 (strongly disagree) to 8 (strongly agree). A sample item includes: “I have decided on the occupation I want to enter, for example electrical engineer, nurse or cook”. In the study done by Jones (1989), the CDP measured a reliable Cronbach alpha coefficient of $\alpha = 0,84$. In this study the Cronbach alpha coefficient measured $\alpha = 0,83$.

Assessing meaningful work was done by administering the *Work and Meaning Inventory* (WAMI) developed by Steger et al. (2012). This scale measures the individual’s search for and experience of meaning and purpose in life. This is a 10-item scale and response options ranged from 1 (not at all true of me) to 4 (absolutely true of me). Sample items include: “I have a good sense of what makes my job meaningful” and “My work helps me make sense of the world around me”. The study done by Steger et al. (2012) reported a Cronbach alpha coefficient of 0,86. This study reported an acceptable Cronbach alpha coefficient of $\alpha = 0,91$

Statistical analysis.

In order to answer the research questions and to test the adequacy of the hypothesised model (Figure 1), the researcher used structural equation modelling (SEM). Version 6.12 of the Mplus statistical modelling program was utilised to analyse the data (Muthén & Muthén, 2011). Descriptive statistics (including means, standard deviations, skewness and kurtosis) were used to analyse the distribution of the scores as well as to determine whether the participants reported to experiencing their work as a calling. Cronbach alpha coefficients (α) were computed to determine the reliability of the measuring instruments in this study. Pearson product-moment correlation coefficients were used to specify relationships between variables. Effect sizes (Steyn, 2005) were used to decide on the practical significance of the findings. The practical significant cut-off point for correlation coefficients was set at $p \geq 0,30$ which represents a medium effect and $p \geq 0,50$ for a large effect (Cohen, 1998; Steyn,

2005). The reporting of effect sizes for findings is supported by the American Psychological Association (APA, 2010).

Structural Equation Modelling as implemented in the statistical program Mplus (Muthén & Muthén, 2011) was applied to test the adequacy of the measurement and structural models by calculating the maximum likelihood analysis. To strengthen the validity of the results, the influence of latent variables on each other were examined while controlling for other predictor variables (Danielsen, Samdal, Hetland & Wold, 2009). To determine whether meaningful work had an influence on the relationship between the experience of a calling and work attitude, the Sobel test was used (Preacher & Leonardelli, 2007).

To test the hypothesised model, the researcher followed a two-step, model-building procedure: the measurement model and the structural model were tested. In order to establish the goodness of model fit, the following indices were used: a) absolute fit indices, including the Chi-square statistic (χ^2), which is the test of absolute fit of the model, the Standardized Root Mean Residual (SRMR) and the Root-Mean-Square Error of Approximation (RMSEA); and b) incremental fit indices including the Tucker-Lewis Index (TLI) and the Comparative Fit Index (CFI) (Hair, Black, Babin, Andersen & Tatham 2010; Hu & Bentler, 1999; Marsh, Hau & Wen, 2004). Acceptable values for the TLI and CFI indices are $>0,90$. RMSEA values $<0,05$ and a SRMR value $<0,08$ indicate a close fit between the model and the data (Hair et al., 2010).

Results

Descriptive statistics and alpha coefficients

The descriptive statistics and Cronbach alpha coefficients for all the variables are reported in Table 2. According to the values reported, the decidedness score seems to be skewed. However, according to Pallant (2010), the effect of skewness and kurtosis in samples larger than 200, is not substantial. Cronbach alpha coefficients of 0,70 are acceptable in statistical analysis of social sciences (Nunnally & Bernstein, 1994). The Cronbach alpha coefficients obtained on all the scales varied from 0,81 to 0,91. The alpha coefficient for work preference (being work challenge and work enjoyment) was the lowest ($\alpha = 0,81$).

Table 2 indicates that search for calling is statistically significantly related to presence of calling ($r = 0,39$; medium effect), meaningful work ($r = 0,19$, small effect), work challenge ($r = 0,23$, small effect), work enjoyment ($r = 0,21$, small effect) and work attitude ($r = 0,28$, small effect). A negative correlation was observed between search for calling and decidedness ($r = -0,11$, small effect). Presence of calling correlated statistically significantly with meaningful work ($r = 0,87$; large effect), work challenge ($r = 0,52$; large effect), work enjoyment ($r = 0,48$; medium effect) as well as work attitude ($r = 0,64$; large effect). A negative correlation was observed between presence of calling and decidedness ($r = -0,26$; small effect).

Meaningful work correlated statistically significantly with, work challenge ($r = 0,55$; large effect), work enjoyment ($r = 0,51$; large effect) as well as work attitude ($r = 0,69$; large effect). A negative correlation was observed between meaningful work and decidedness ($r = -0,28$; small effect).

Work attitude's subscale namely work challenge correlated statistically significantly with work enjoyment ($r = 0,59$; large effect) as well as work attitude ($r = 0,80$; large effect). A negative correlation was observed between work challenge and decidedness ($r = -0,32$; medium effect). Work attitude's subscale namely work enjoyment correlated statistically significantly with work attitude ($r = 0,74$; large effect). A negative correlation was observed with decidedness ($r = -0,30$; medium effect). Decidedness correlated statistically significantly with work attitude ($r = -0,40$; medium effect).

Table 2

Descriptive Statistics and Cronbach Alpha Coefficients of the Measuring Instruments

Scale	Mean	SD	Skewness	Kurtosis	α	1	2	3	4	5	6	7
1. Search for calling	2,67	0,79	-0,21	-0,72	0,84	-	-	-	-	-	-	-
2. Presence of calling	3,16	0,53	-0,46	-0,08	0,89	0,39**+	-	-	-	-	-	-
3. Meaningful work	3,19	0,57	-0,53	0,26	0,91	0,19**	0,87**++	-	-	-	-	-
4. Work challenge	-	-	-	-	-	0,23**	0,52**++	0,55**++	-	-	-	-
5. Work enjoyment	-	-	-	-	-	0,21**	0,48**+	0,51**++	0,59**++	-	-	-
6. Decidedness	2,68	1,68	1,04	0,24	0,82	-0,11**	-0,26**	-0,28**	-0,32**+	-0,30**+	-	-
7. Work attitude	3,13	0,53	-0,62	0,48	0,81	0,28**	0,64**++	0,69**++	0,80**++	0,74**++	0,40**+	1,00

**Correlation is significant at the 0,01 level

+Correlation is practically significant $r > 0,30$ (medium effect)

++Correlation is practically significant $r > 0,50$ (large effect)

Hypothesis 1: Teachers in the Fezile Dabi district experience their work as a calling. In order to determine whether the participants reported to experience their work as a calling, the descriptive values reported in Table 3 need to be examined. According to these values the participants reported higher than average levels for a presence of calling (3.16) than a search for calling (2.67). Hypothesis 1 is accepted based on the higher than average levels reported for the experience of a calling. This means that teachers are experiencing their careers as a calling. These teachers are more mature in their career development and they are comfortable in making career related decisions. Furthermore, these teachers also have a good sense of their abilities and interests.

Table 3

Mean statistics

	<i>N</i>	Minimum	Maximum	Mean	<i>SD</i>
Search for calling	244	1,00	4,00	2,67	0,79
Presence of calling	244	1,46	4,00	3,16	0,54

Testing the measurement model

The full measurement model was tested in Mplus version 6.12 (Muthén & Muthén, 2011). Based on the sample size, degrees of freedom and the free parameters, there is enough statistical power to test the measurement models. All the latent variables were allowed to covary. The correlation table (Table 2) was scrutinised for multicollinearity and no relationships were found to be above >0,90. Global assessments of model fit were based on several goodness-of-fit statistics, such as CFI; TLI; RMSEA and SRMR.

Hypothesised models

One of the three dimensions, namely work attitude, was covered by two independent measurement scales, namely the work challenge, work enjoyment scale and the decidedness scale. For this specific dimension a latent variable was specified on which the corresponding scales loaded, separating random measurement error from true score variance. For the other two dimensions, namely experience of a calling and meaningful work, there was only one indicator each, meaning that between the manifest variables (scales) and the underlying latent variables there was a one-to-one correspondence reported.

The following measurement models were tested and Table 4 presents fit statistics for the various measurement models.

- Model 1: This model consisted of five latent factors: sense of calling (24 items; inclusive of both search for and presence of calling); meaningful work (10 items); work challenge (5 items), work enjoyment (10 items) and decidedness (3 items).
- Model 2: This model consisted of six latent factors: search for calling (11 items), presence of calling (14 items); meaningful work (10 items); work challenge (5 items), work enjoyment (10 items) and decidedness (3 items).
- Model 3: This model consisted of five latent factors: search for calling (consisting of search for calling outside current career - 7 items; presence of calling - 13 items and search for calling within current career - 4 items), meaningful work (10 items); work challenge (5 items), work enjoyment (10 items) and decidedness (3 items).

Table 4

Descriptive Statistics and Cronbach Alpha Coefficients of the Measuring Instruments

	χ^2	df	RMSEA	SRMR	CFI	TLI
Model 1	2891,68*	252	0,20	0,23	0,61	0,57
Model 2	882,85*	229	0,10	0,08	0,90	0,88
Model 3	484,67*	207	0,07	0,05	0,96	0,95

* $p \leq 0,01$

Comparison of the fit indices indicates that Model 3 fitted the data best. The other two models exhibited poor fit to the data. Table 4 indicates that a chi-square (χ^2) value of 2891,68* (df = 252) was obtained for Model 1, which was subsequently used as a baseline model to decide whether or not the other two models represented a statistically significant improvement. The following changes in chi-square ($\Delta\chi^2$) were found when the competing models were compared: Models 1 and 2 ($\Delta\chi^2 = 2008,83$, $\Delta df = 23$, $p \leq 0.01$); and Models 1 and 3 ($\Delta\chi^2 = 2407.01$, $\Delta df = 45$, $p \leq 0.01$). These results indicate that Model 3 fitted the data statistically significantly better than the other two models.

The third model hypothesised that teachers' work attitude is influenced by four latent first-order factors, namely meaningful work (10 items); work challenge (5 items), work enjoyment (10 items) and decidedness (3 items). The model further hypothesised one latent second-order factor, namely sense of calling, consisting of search for calling outside current career (7 items); presence of calling (13 items) and search for calling within current career (4 items). However, after analysing the items that indicated low factor loadings it became apparent that all items (4 items) loaded on the same factor, namely the search for calling within the current career. These items were removed in order to obtain a better data fit. Thus, for the purpose of this study, the latent factor, namely sense of calling, consists of a) search for calling (outside the current career) and b) presence of calling.

Testing the structural model

The postulated path model for the structural relations was analysed. The structural equation modelling (SEM) technique was applied to assess a) the direct effects of the search for calling and presence of calling on work attitude, b) the direct effect of the search for calling and presence of calling on meaningful work, c) the direct effect of meaningful work on work attitude.

Hypothesis 2: There is a significant positive relationship between the experience of a sense of calling and a positive work attitude among teachers in the Fezile Dabi district. The experience of a sense of calling (the search for as well as the presence of a calling) for teachers in die Fezile Dabi district had a significant positive relationship with their work attitude. The results were significant at the $p < 0,01$ level. The ML-estimation equation accounted for a substantial proportion of the variance in work attitude ($R^2 = 0,50$).

Table 5

Direct effects of Meaningful work and Work attitude

	Meaningful work		Work attitude	
	Estimate β	SE	Estimate β	SE
Search for calling	-0,19*	0,05	0,15*	0,08
Presence of calling	0,95*	0,02	0,04*	0,20
Meaningful work			0,63*	0,18

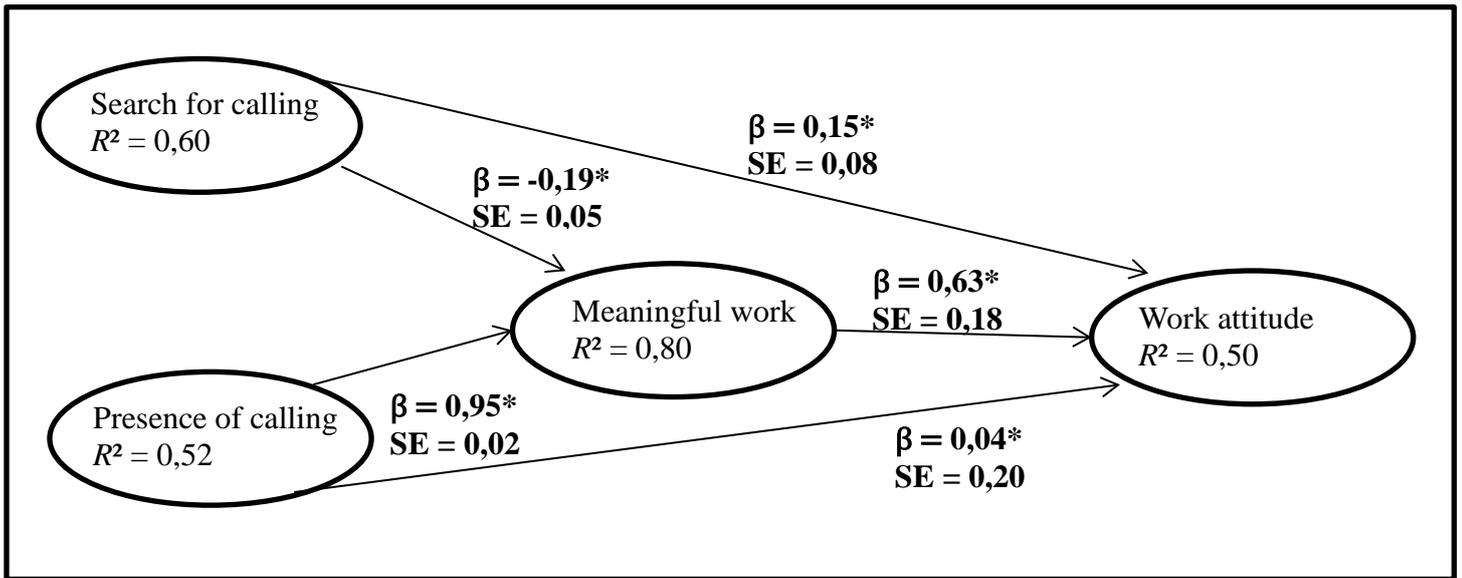


Figure 2. Maximum likelihood estimates of the relation between sense of calling, meaningful work and work attitude

The estimates of the structural model are displayed in Figure 2. All estimates were significant at the $p < 0,01$ level. As indicated in Figure 2, the relation between the teachers' work attitude and the search for calling is weak ($\beta = 0,15$). The relation between the teachers' work attitude and the presence of a calling is also weak ($\beta = 0,04$). However, the relation between the teachers' work attitude and meaningful work is substantial ($\beta = 0,63$). The strongest parameter in the SEM analysis was the direct effect of presence of calling on meaningful work ($\beta = 0,95$), whereas the effect of search for calling on meaningful work was weak ($\beta = 0,19$). This result provides support for hypothesis 2. Therefore, hypothesis 2 is accepted in that a sense of calling correlates statistically significantly with work attitude.

Hypothesis 3: The relationship between the experience of a sense of calling and work attitude among teachers in the Fezile Dabi district is indirectly influenced by meaningful work. This hypothesis states that meaningful work has an indirect effect on the relationship between sense of calling and work attitude. Therefore different models as well as the values of direct effects were calculated and analysed: a) model 1 – estimated direct effect paths from the independent variables (search for calling outside the current career and presence of calling) to the meaningful work (hypothesised indirect effect); b) model 2 – estimated direct effect paths from the independent variable (search for calling outside the current career and

presence of calling) as well as meaningful work (the proposed indirect effect) to work attitude. Table 5 reports the direct effect paths between the different variables.

In order to evaluate indirect effects, the procedure as explained by Hayes (2009) was followed. Bootstrapping was used to construct the two-sided bias-corrected confidence intervals. Table 6 reports the bootstrap estimates for the indirect effects.

Table 6
Indirect effects of Meaningful work

	Meaningful work		
	Lower 2,5%	Estimate	Upper 2.5%
Search for calling	-0,229	-0,116*	-0,003
Presence of calling	0,152	0,598*	1,045

* $p \leq 0,05$

Table 6 indicates that the bootstrap estimate of the indirect effect of meaningful work in the relationship between search for calling and work attitude was statistically significant and the 95% confidence intervals did not include zero, which suggests that meaningful work does have an indirect effect on the relationship between search for calling and work attitude. However, this indirect effect is reported as being negative which implies that the individual that experiences a search for calling will also experience a lower level of meaningful work, resulting in a negative work attitude. Thus, as far as hypothesis 3 is concerned, it can be accepted that meaningful work has an indirect effect for the individual that experiences a search for calling.

However, Table 6 also indicates that the bootstrap estimate of the indirect effect of meaningful work in the relationship between presence of calling and work attitude was statistically significant and the 95% confidence intervals did include zero. This suggests that meaningful work does not have an indirect effect on the relationship between presence of calling and work attitude. Therefore, once the individual experiences a presence of calling, meaningful work will not have an influence on work attitude. Therefore hypothesis 3 cannot be accepted for individuals with a presence of calling.

Discussion

The aim of the study was to set a research agenda for investigating the experience of a sense of calling, work attitude and meaningful work of teachers in South Africa. An adapted theoretical model was proposed from the academic environment, stating that meaningful work will have an indirect effect on the relationship between experiencing a sense of calling and a positive work attitude (Steger et al., 2011). Existing research and literature was explored, compared, evaluated and interpreted. The South African body of knowledge was incorporated into international literature and research. Experience of a sense of calling, work attitude and meaningful work were conceptualised and defined, and the measurement thereof was investigated.

A representative sample of South African teachers was involved in this study. The majority of the participants were between 46 and 55 years of age (34,5%), mostly female (77,5%) and Afrikaans speaking (70,6%). A total of 55% reported that they had more than 15 years' teaching experience.

Convincing reliability results were reported for this study. The Cronbach alpha coefficients for the different scales were: 1) *sense of calling* – search for calling $\alpha = 0,84$ and presence of calling $\alpha = 0,89$; 2) *work attitude* – work challenge and work enjoyment $\alpha = 0,82$ and decidedness $\alpha = 0,83$ and 3) *meaningful work* – $\alpha = 0,91$.

Through the investigation of a diverse group of South African teachers, results have revealed that two distinct types of calling experiences could be identified: the search for calling and the presence of calling. The existence of these types provides support for the notion that teachers experience a sense of calling, be it a process of searching or the presence of a calling (Wrzesniewski et al., 1997). In addition, teachers reported a score of 2,67 out of a maximum of 4 for search for calling and 3,16 out of a maximum of 4 for experience a presence of calling in their work. In practice this implies that teachers experience their work as a presence of calling more than teachers experiencing search for calling. This is significant as it implies that teachers feel that in their work they do experience a calling. This supports the notion by Wrzesniewski et al. (1997) that teachers are more likely to experience their work as a sense of calling. This opens up the important question of whether the relatively well-established positive effects of experiencing a calling are manifested by the

teachers in South Africa (Dik et al., 2009; Elangovan et al., 2010; Hall & Chandler, 2005; Müller et al., 2009; Steger et al., 2011). In practice, this implies that teachers should display lower absenteeism levels compared to other vocations (Wrzesniewski et al., 1997) and find it easier to consistently foster a positive work attitude (Duffy et al., 2011; Elangovan et al., 2010; Hall & Chandler, 2005; Steger et al., 2011).

A further contribution of the present study was that it supported the notion that the experience of a calling is positively related to work attitude (Duffy et al., 2011; Elangovan et al., 2010; Hall & Chandler, 2005; Steger et al., 2011). This suggests that teachers with a calling will experience a more positive work attitude. Investigating the diverse group of South African teachers, the results have shown that two distinct types of calling could be identified: “search for calling” and “presence of calling”. The existence of these groups provides support for the notion that having a sense of calling in one’s career can be a static orientation (Duffy & Sedlacek, 2007). However, it does not rule out the argument that a sense of calling can also be a process in which the teacher constantly experiences, maintains and seeks a calling (Dik et al., 2012). Therefore, future research should investigate this proposition.

Regarding the relationship between calling and work attitude, the results indicated that teachers with a presence of calling showed higher levels of positive work attitude and decidedness compared to teachers that reported a search for calling. This is significant as it implies that teachers who successfully gained self-perception as to who they are, their motivations towards work challenges and their choice of career are thus more likely to display a positive work attitude (Dik et al., 2012; Elangovan et al., 2010, Hall & Chandler, 2005; Müller et al., 2009; Steger et al., 2011; Wrzesniewski et al., 1997). In practice, this increased level of positive work attitude will enable the teacher to change his own behaviour in class (Berliner, 2002) resulting in learners changing their behaviour as well. Consequently, teachers are empowered to deliver quality education to all learners and be the change agent towards educational transformation (Department of Basic Education and Higher Education and Training, 2011; Jerlinder et al., 2010; Nel et al., 2011). Contrary to expectations, the current state of education does not reflect these conceptualizations of experiencing a positive work attitude. Longitudinal research would be necessary to investigate this intent.

Finally, the study indicated that teachers that report a search for calling will only be able to display a positive work attitude once they experience their work as meaningful. Apparently, this group of teachers are self-centred and insecure and their primary goal is gaining personal benefits (Hirschi, 2011). This contradicts the argument that teachers with a calling will find their work as being socially valuable (Müller et al., 2009). This is significant, as it implies that these teachers hold a negative view about themselves which in turn will influence their subjective experience of meaningful work (Hall & Chandler, 2005).

However, teachers with a presence of calling do not place as high a value on meaningful work experiences in order to consistently strive towards a positive work attitude. The results specifically point out that meaningful work (irrespective of the type of calling experienced) entails the understanding of work as being significant, serving the greater good and with the objective of personal growth (Dobrow, 2004; Rosso et al., 2010; Steger et al., 2012). In practice, this result in teachers actively seeking meaningful work within their teaching profession, objectively judging their work as meaningful and impacting on the greater good of humankind. Therefore teachers consistently engage in a process of changing towards a more positive work attitude (Steger et al., 2012; Wrzesniewski et al., 1997). For the teaching profession, the results imply that, when assisting teachers in finding a sense of calling in their careers, the focus should be on self-reflection in order to discover personal interests, values and work preferences. Teachers should be allowed to develop their own, unique experiences of a calling, not necessarily corresponding to academically proposed definitions.

Summary, recommendations and limitations

The findings of this study emphasise that teachers that experience work as a calling report a more positive work attitude. The results contribute to resolve an assumption that meaningful work mediates the relationships of both search for and presence of calling with work attitude. Meaningful work only mediates the relationship between search for calling and work attitude. At the core of this study is the idea that a teacher's positive work attitude is dependent on the meaningful work experience of the individual. The results suggest that meaningful work may be an integral part of the calling experience.

Limitations of the present study include that data were retrieved from a cross-sectional research design that utilized a structured questionnaire. Hence no causal inferences could be made. The results of this study are very sample dependent as to reflect the actual nature of the data and not pre-imposed patterns; hence the importance to replicate this study with other, bigger samples to support generalizability of the results. The study was conducted among teachers; thus the results obtained from this study may only be used in the educational context. Moreover, the questionnaires were only available in English and this may have affected the results, as some respondents' first language may not be English. This may result in respondents not fully comprehending the questions; translation of the questionnaires could have helped in obtaining more reliable results.

Through this study distinctive insights were provided into the relationship between the experience of a calling, work attitude and meaningful work. However, more in-depth, longitudinal and qualitative research is needed to fully comprehend the interaction among these constructs. To increase the likelihood of teachers actively engaging in the delivery of quality education, interventions should be developed based on empirical results. Therefore the measures used in future research could be refined even more.

References

- Amabile, T. M., Hill, K. G., Hennessey, B. A., & Tighe, E. M. (1994). The Work Preference Inventory: Assessing intrinsic and extrinsic motivational orientations. *Journal of Personality and Social Psychology*, 66, 950-976.
- Andrews, L. (2002). Preparing general education pre-service teachers for inclusion: Web-enhanced case-based instruction. *Journal of Special Education Technology*, 17, 27-35.
- APA (American Psychological Association) (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.
- Atkinson, D. (2004). Theorising how student teachers form their identities in initial education. *British Educational Research Journal*, 30(3), 379-394.
- Bernard, H. R. (2012). *Social Research Methods: Qualitative and Quantitative Approaches*. California: SAGE Publications.
- Bergin, A. E., & Jensen, J. P. (1990). Religiosity of psychotherapists: A national survey. *Psychotherapy*, 27, 3-7.
- Berliner, D. C. (2002). Educational Research: The Hardest Science of All. *Educational Researcher*, 31(3), 18-20.
- Carl, A. E. (2002). *Teacher empowerment through curriculum development* (2nd ed.). Lansdowne: Juta & Company.
- Chambers, D., & Forlin, C. (2010). Initial teacher education and inclusion: A triad of inclusive experiences. In C. Forlin (Ed.), *Teacher education for inclusion: Changing paradigms and innovative approaches* (pp. 74-83). Abingdon: Routledge.
- Clair, N., & Adgers, C. T. (2001). *Professional Development for teachers in successfully diverse rituals*. Eric Digest, EDO-FL-99-08.
- Cohen, J. (1998). A power primer. *Psychological Bulletin*, 112, 155-159.
- Cook, B. G. (2002). Inclusive attitudes, strengths, and weaknesses of pre-service general educators enrolled in a curriculum infusion teacher preparation program. *Teacher Education and Special Education*, 25, 262-277.
- Danielsen, A. G., Samdal, O., Hetland, J., & Wold, B. (2009). School-Related Social Support and Students' Perceived Life Satisfaction. *Journal of Educational Research*, 102 (4), 303-320
- Department of Basic Education (2010). *Inclusive Education Field Test: 2004-2009*. Pretoria: Government Printer.

- Department of Basic Education (2012). *Action Plan to 2014: Towards the Realisation of Schooling 2025*. Pretoria: Government Printer.
- Department of Basic Education and Higher Education and Training (2011). *Integrated Strategic Planning Framework for Teacher Education and Development in South Africa: 1011-1025*. Pretoria: Government Printer.
- Department of Education (2001). *Building an inclusive education and training system – Education White Paper 6” special needs education*. Pretoria: Government Printer.
- Dik, B. J., & Duffy, R. D. (2009). Calling and vocation at work: Definitions and prospects for research and practice. *The Counseling Psychologist, 37*, 424-450.
- Dik, B. J., Duffy, R. D., & Eldridge, B. M. (2009). Calling and vocation in career counselling: Recommendations for promoting meaningful work. *Professional Psychology: Research and Practice, 40*, 625-632.
- Dik, B. J., Eldridge, B. M., Steger, M. F., & Duffy, R. D. (2012). Development and validation of the Calling and Vocation Questionnaire (CVQ) and Brief Calling Scale (BCS). *Journal of Career Assessment*, January 24, 2012.
- Dobrow, S. (2004). *Extreme subjective career success: A new integrated view of having a sense of calling*. Best Paper Proceedings of the Academy of Management Conference held at Harvard Business School. Boston, MA: Academy of Management.
- Duffy, R. D., Dik, B. J., & Steger, M. F. (2011). Calling and work-related outcomes: Career commitment as a mediator. *Journal of Vocational Behavior, 78*, 210-218.
- Duffy, R. D., & Sedlacek, W. E. (2007). The presence of and search for a calling: Connections to career development. *Journal of Vocational Behavior, 70*, 590-601.
- EduSwift South Africa (2010). *Next generation school management systems*. Retrieved February, 01, 2012, from <http://www.fisteducation.co.za>.
- Elangovan, A. R., Pinder, C. C., & McLean, M. (2010). Callings and organizational behaviour. *Journal of Vocational Behavior, 76*, 428-440.
- Eloff, I., & Kgwete, L. K. (2007). *South African teachers’ voices on support in inclusive education*. Retrieved September 10, 2011, from <http://www.thefreelibrary.com//print/printarticle.aspx?id=168163366>.
- Engelbrecht, P., Oswald, M., & Forlin, C. (2006). Promoting the implementation of inclusive education in primary schools in South Africa. *British Journal of Special Education, 33*, 121-129.

- European Agency for Development in Special Needs Education (2010). *Teacher Education for Inclusion – International Literature Review*. Odense, Denmark: European Agency for Development in Special Needs Education.
- Fleisch (2007, August). *If I were Minister of Education...Key priorities to turn public schooling around*. Paper presented at the first of a series of seminars of Umalusi, Pretoria, South Africa.
- Forlin, C., Loreman, T., Sharma, U., & Earle, C. (2009). Demographic differences in changing pre-service teachers' attitudes, sentiments and concerns about inclusive education. *International Journal of Inclusive Education, 13*(2), 195-209.
- Hair, J. F., Black, B., Babin, B., Andersen, R. E., & Tatham, R. L. (2010). *Multivariate data analysis* (7 ed.). Englewood Cliffs, NJ: Prentice Hall.
- Hall, D. T., & Chandler, D. E. (2005). Psychological success: When the career is a calling. *Journal of Organizational Behavior, 26*, 155-176.
- Hammett, D. (2007). Disrespecting teacher: The decline in social standing of teachers in Cape Town, South Africa. *International Journal of Educational Development 28*, 340-347.
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs, 76*, 408-420.
- Hirschi, A. (2011). Calling in career: A typological approach to essential and optional components. *Journal of Vocational Behavior, 79*(1), 60-73.
- Hunter, I., Dik, B. J., & Banning, J. (2010). College students' perceptions of calling in work and life: A qualitative investigation. *Journal of Vocational Behavior, 76*, 178-186.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.
- Isaksen, J. (2000). Constructing meaning despite the drudgery of repetitive work. *Journal of Humanistic Psychology, 40*, 84-107.
- Jackson, L. T. B., & Rothmann, S. (2005). An adapted model of burnout for educators of South Africa. *South African Journal of Education, 25*(2), 100-108.
- Jackson, L. T. B., & Rothmann, S. (2006). Occupational stress, organisational commitment, and ill-health of educators in the North West Province. *South African Journal of Education, 26*(1), 75-95.
- Jackson, L. T. B., Rothmann, S., & van der Vijver, F. J. R. (2006). A model of work-related well-being for educators in South Africa. *Stress and Health, 22*, 263-274.

- Jansen, J. D. (2007, August). *If I were Minister of Education...Key priorities to turn public schooling around*. Paper presented at the first of a series of seminars of Umalusi, Pretoria, South Africa.
- Jansen, J. D. (2012, January 09). Dear President Zuma. I am writing to you out of desperation [Web log post]. Retrieved from <http://ramonthomas.com>
- Jerlinder, K., Danermark, B., & Gill, P. (2010). Swedish primary-school teachers; attitudes to inclusion – the case of PE and pupils with physical disabilities. *European Journal of Special Needs Education, 25*, 45-57.
- Jones, L. K. (1989). Measuring a three-dimensional construct of career indecision among college students: A revision of the Vocational Decision Scale: The Career Decision Profile. *Journal of Counseling Psychology, 36*, 477-486.
- Kuyini, A. B., & Desai, I. (2007). Principals' and teachers' attitudes and knowledge of inclusive education as predictors of effective teaching practices in Ghana. *Journal of Research in Special Educational Needs, 2*, 104-113.
- Lolwana, P. (2007, August). *If I were Minister of Education...Key priorities to turn public schooling around*. Paper presented at the first of a series of seminars of Umalusi, Pretoria, South Africa.
- Lumadi, M. W. (2008). Teachers' Exodus In South African Schools: A Smoke With Burning Fire. *Contemporary Issue in Education Research – Third Quarter, 1*(3), 31-40.
- Marsh, H. W., Hau, K.T., & Wen, Z. (2004). In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu and Bentler's (1999) findings. *Structural Equation Modeling, 11*, 320-341.
- McKinsey, & Co. (2007). *How the world's best performing school systems come out on top*. Retrieved from http://www.mckinsey.com/locations/UK_Ireland/
- Meijer, C. J. W., Soriano, V., & Watkins, A. (eds.) (2006). *Provision in Post-Primary Education*. Odense, Denmark: European Agency for Development in Special Needs Education.
- Morrison, G. S. (2002). *Contemporary curriculum*. London: Allyn and Bacon.
- Motshekga, A. (2011). Focus schools. *Keynote address at SAOU Symposium on Focus Schools held at North West University, Potchefstroom, 15 October 2011*. Potchefstroom, South Africa: Department of Basic Education.

- Müller, K., Alliata, R., & Benninghoff, F. (2009). Attracting and retaining teachers: A question of motivation. *Educational Management Administration & Leadership*, 37, 574-599.
- Muthén, B., & Muthén, L. (2011). MPlus [computer software]. Los Angeles, CA: Muthén & Muthén.
- Naicker, S. (2006). From policy to practice: a South African perspective on implementing inclusive education policy. *International Journal of Whole Schooling*, 1, 1-6.
- Nel, N., Muller, H., Hugo, A., Helldin, R., Backmann, O., Dwyer, H., & Skarlind, A. (2011). A comparative perspective on teacher attitude-constructs that impact on inclusive education in South Africa and Sweden. *South African Journal of Education*, 31, 74-90.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York, NY: McGraw-Hill.
- O'Brien, G. E. (1992). Changing meanings of work. In J. F. Hartley, & G. M. Stephenson (Eds.), *Employment relations: The psychology of influence and control at work* (p. 44-66). Oxford, UK: Blackwell.
- Pallant, J. (2010). *SPSS Survival Manual*. (4th ed.). New York, NY: McGraw-Hill.
- Pearson, S. (2007). Exploring inclusive education: early steps for prospective secondary school teachers. *British Journal of Special Education*, 34(1), 25-32.
- Preacher, K. J., Leonardelli, G. J. (2007). *Calculation for the Sobel Test: An interactive calculation tool for mediation tests*. Retrieved January 30, 2012 from <http://people.ku.edu/~preacher/sobel/sobel.htm>.
- Rademeyer, A. (2013, April 2). Onnies word nou dopgehou. *Die Burger*, 1.
- Reinke, K., & Moseley, C. (2002). The effects of teacher education on elementary and secondary preservice teachers' beliefs about integration: A longitudinal study. *Action in Teacher Education*, 24, 31-39.
- Rosso, B. D., Dekas, K. H., & Wrzesniewski, A. (2010). On the meaning of work: A theoretical integration and review. *Research in Organizational Behavior*, 30, 91-127.
- SAPA (2012a). *Low-fee schools on the rise*. News 24. Retrieved January 22, 2012. From <http://www.weforum.org/issues/competitiveness-0/gci2012-data-platform>
- SAPA (2012b). *Northern Cape schools need solution – IFP*. News 24. Retrieved January 22, 2012. From <http://www.weforum.org/issues/competitiveness-0/gci2012-data-platform>
- SAPA (2012c). *Teachers to strike over headmaster*. News 24. Retrieved January 22, 2012. From <http://www.weforum.org/issues/competitiveness-0/gci2012-data-platform>

- SAPA (2012d). “*Appaling conditions at E Cape school*”. News 24. Retrieved January 22, 2012. From <http://www.weforum.org/issues/competitiveness-0/gci2012-data-platform>
- SA Info (2012). *Education in South Africa*. Retrieved April 30, 2012. From http://www.southafrica.info/pls/procs/iac.page?p_t1=2779
- Shaughnessy, J. J., Zechmeister, E. B., & Zechmeister, J. S. (2003). *Research methods in psychology* (6th ed.). New York, NY: McGraw Hill.
- Silverman, J. C. (2007). Epistemological Beliefs and Attitudes Towards Inclusion in Pre-service Teachers. *Teacher Education and Special Education*, 30(1), 42-51.
- Sparks, K. (2001). Well-being and occupational health in the 21st century. *Journal of Occupational & Organisational Psychology*, 74, 489-510.
- Staw, B. M., & Ross, J. (1985). Stability in the midst of change: A dispositional approach to job attitudes. *Journal of Applied Psychology*, 70, 469-480.
- Steger, M. F., & Dik, B. J. (2010). Work as meaning. In P. A. Linley, S. Harrington, & N. Page (Eds.), *Oxford handbook of positive psychology and work*. UK: Oxford University Press.
- Steger, M. F., Dik, B. J., & Duffy, R. D. (2012). Measuring meaningful work: The Work and Meaning Inventory (WAMI). *Journal of Career Assessment*, 00(0), 1-16.
- Steger, M. F., Pickering, N. K., Shin, J. Y., & Dik, B. J. (2011). Calling in Work: Secular or Sacred? *Journal of Career Assessment*, 18(1), 82-96.
- Steyn, H. S. (2005). *Praktiese betekenisvolheid: Die gebruik van effek groottes*. [Practical significance: The use of effect sizes]. Wetenskaplike bydraes – Reeks B: Natuurwetenskappe Nr. 117. Potchefstroom: Potchefstroomse Universiteit vir Christelike Hoër Onderwys (nou Noordwes Universiteit).
- Talmor, R., Reiter, S., & Feigin, N. (2005). Factors relating to regular education teacher burnout in inclusive education. *European Journal of Special Needs Education*, 2, 215-229.
- Timaeus, I. M., Simelane, S., & Letsoalo, T. (2011). *Poverty, race, and children's progress at school in South Africa*. Retrieved January, 30, 2012, from <http://www.pan.org.za>.
- TIP: Concepts (2010). Retrieved September, 11, 2011, from <http://www.tip.psychology.org/attitude.html>
- Treadgold, R. (1999). Transcendent vocations: Their relationship to stress, depression, and clarity of self-concept. *Journal of Humanistic Psychology*, 39, 81-105.
- Welman, J. C., & Kruger, S. J. (2001). *Research methodology for the business and administrative sciences*. UK: Oxford University Press.

- World Bank (2012). *World Competitiveness Report 2011-2012*. Retrieved January 22, 2012, from <http://mg.co.za/article/2012-09-07-quality-of-the-educational-system>
- Wrzesniewski, A., McCauley, C., Rozin, P., & Schwartz, B. (1997). Jobs, careers, and callings: People's relations to their work. *Journal of Research in Personality, 31*, 21-33.
- Yero, J. L. (2011). *Reforming or Transforming Education: More than Just Words*. Retrieved November, 01, 2011, from <http://www.teachersmind.com>.
- Zimbardo, P. G., & Leippe, M. (1991). *The psychology of attitude change and social influence*. New York, NY: McGraw-Hill.

Chapter 3: Conclusions, limitations and recommendations

3.1 Introduction

The purpose of this chapter is to present conclusions, recommendations and limitations regarding the results of the empirical study. Firstly, conclusions are drawn from the research objectives. Secondly, attention will be drawn to the limitations of the study. Finally, recommendations will be made for future research into the field of industrial psychology.

3.2 Conclusions from literature and empirical results

The general aim of this study was to explore the relationships between experiencing a sense of calling and work attitudes among teachers as well as the influence of meaningful work on that relationship. Based on the empirical results, the following conclusions can be drawn:

The first objective was to conceptualise sense of calling, work attitude and meaningful work.

Literature suggests that a sense of calling can be conceptualised as a person's desire to contribute to the greater good (Dik & Duffy, 2009; Steger & Dik, 2010) as well as experiencing a sense of purpose, direction, personal fulfilment and a desire to help (Dik, Duffy & Eldridge, 2009; Elangovan, Pinder & McLean, 2010; Hall & Chandler, 2005; Müller, Alliaata & Benninghoff, 2009; Steger, Pickering, Shin & Dik, 2011; Wrzesniewski, McCauley, Rozin & Schwartz, 1997). Research suggested that work becomes socially valuable to a person that experiences it as a calling, as this increases the levels of life- and work satisfaction and it contributes to the individual's desire to serve the greater good (Dik & Duffy, 2009; Duffy, Dik & Steger, 2011; Steger & Dik, 2010; Treadgold, 1999; Wrzesniewski et al., 1997).

For purposes of this study, work attitude has been conceptualised as the result of a person's implicit learning from previous personal experiences (Nel et al., 2011; TIP: Concepts, 2010; Zimbardo & Leippe, 1991). Work attitude can be characterised by a) work challenge and work enjoyment and b) career decidedness (Amabile, Hill, Hennessey & Tighe, 1994; Jones, 1989). A person's self-perception and motivation for choosing a specific

career can be reported by the intrinsic subscales of work challenge and work enjoyment. Adding to these afore-mentioned subscales is the extent to which a person felt certain about his career choice, as reported by the career decidedness scale. Work attitude was, however, measured as one construct for purposes of this study.

In numerous studies it is found that meaningful work consists of a) the element that captures the judgement of each person that his work matters and is meaningful, b) self-directed actions to facilitate personal growth and seek meaningful work and c) the desire to positively impact on the greater good of mankind (Dik & Duffy, 2009; Rosso, Dekas & Wrzesniewski, 2010).

The relationships between the constructs have also been investigated in the literature. Research findings revealed that experiencing work as a calling will greatly improve a positive work attitude (Duffy et al., 2011; Elangovan et al., 2010; Hall & Chandler, 2005; Steger et al., 2011). Meaningful work is also associated with higher levels of positive work attitude (Hall & Chandler, 2005; O'Brien, 1992).

The second objective of the study was to determine whether teachers experience their work as a calling.

The empirical results suggest that teachers do experience a sense of calling. Teachers on average scored 2,67 out of a maximum of 4 on search for calling and 3,16 out of a maximum of 4 on a presence of calling in their work. This is significant as it implies that more teachers experience a presence of calling than a search for calling.

The third objective of the study was to investigate the relationship between teachers' sense of calling and their work attitude.

Through statistical analysis conducted it was found that a statistically significant relationship exists between the variables. The relation between the teachers' work attitude and the search for calling is weak ($\beta = 0,15$). The relation between the teachers' work attitude and the presence of a calling is also weak ($\beta = 0,04$). However, the relation between the teachers' work attitude and meaningful work is substantial ($\beta = 0,63$). The strongest parameter in the SEM analysis was the direct effect of presence of calling on meaningful work ($\beta = 0,95$), whereas the effect of search for calling on meaningful work was weak ($\beta =$

0,19). Therefore the third objective was achieved as there is a definite relationship between all the constructs in the proposed theoretical model.

The fourth objective was to determine the influence of meaningful work on the relationship between teachers' experience of a sense of calling and their work attitude.

Research found that meaningful work was reported to have an indirect effect on various constructs such as work attitude, work engagement, job security and life satisfaction (Isaksen, 2000; O'Brien, 1992; Steger, Dik & Duffy, 2012; Wrzesniewski et al., 1997). The findings of this study concluded that meaningful work had a significant indirect effect on the relationship between experiencing work as a search for calling and work attitude. This study highlighted that meaningful work does not have an indirect effect on the relationship once work is reported as a presence of calling. In other words, teachers that experience their work as a search for calling need to experience their work as meaningful in order to adopt a more positive work attitude. Thus it can be concluded that the poor quality of education can be solved by retaining teachers with a positive work attitude that find meaning in their work. It is important for teachers to find meaning in their work in order to cultivate a positive work attitude and in the long term, deliver quality education to the learners.

3.3 Limitations

This study had various limitations that have been noted. The research design was cross-sectional and therefore limits the possibility of determining the causality of relationships. Attitudes, feelings and opinions of participants are also only represented at one point in time.

The sampling technique involved only a small number of teachers in the Fezile Dabi district of South Africa. While the number of participants might be considered large enough and relatively diverse enough for research purposes, it is important to note that these teachers represent a relatively small segment of teachers in general. This might have a significant influence on the results and it is recommended that in future research larger numbers of participants need to be included. It also needs to be highlighted that information can vary in other areas of the country as well as for other professions.

The English measures could have been limiting to participants that are not English speaking in that questions were not understood correctly. Furthermore, one measure was

self-reporting and this could lead to “method variance”. The test battery used was also lengthy, although shortened versions of some measures were used. This lengthy battery could cause participants to give convenient answers as opposed to more thought-through responses. It is also possible that in the changing educational climate some teachers were sceptical about answering questions honestly, anticipating negative repercussions. Even though the instrument used to measure the experience of a sense of calling has shown to be reliable and valid, it would have been desirable to have measures which may have indicated the sources of the teacher’s calling, rather than only assessing the experience of a calling in general.

A qualitative research approach in addition to the quantitative research approach could have yielded other antecedents impacting on teachers’ work attitude.

3.4 Recommendations

This research project provided unique insights relating to the content and relationships between experiencing a sense of calling, work attitude and the influence of meaningful work among teachers in the Fezile Dabi district of South Africa. Recommendations are made based on the findings of the research.

3.4.1 Practical implications.

Evidence indicating the experience of a sense of calling is positively linked to work-related outcomes, especially if that experience of a calling is within the career to which that individual is committed. One result of the current study indicates that when a teacher perceives to experience a calling but is not committed to the current teaching career, he may be looking elsewhere to fulfil his sense of calling.

The Department of Education should be encouraged to implement practices that clearly communicate how the individual teacher fits into the broader mission of the department and how that contributes to the common, greater good of society (the experience of meaningful work). Procedures that support psychological safety and well-being of teachers should be established. South African teachers need access to transparent career paths where incentives are in place and serve as encouragement to be productive and deliver quality education. Teachers must be given the opportunity to create teaching environments conducive to

supporting their experience of their calling, such as psychologically safe mechanisms through which teachers can provide and receive feedback from the department. Close collaboration between teachers and the educational leaders of the country needs to be established in order to reach the mutual objective of delivering quality education to all learners. In turn, the strengths of the teachers will be better connected with the department's goals. By creating workplace norms that emphasize teacher participation, greater freedom and responsibility, teachers will find it easier to pursue the experience of a sense of calling and in return craft a more positive attitude towards the profession. The general view of the profession must also be re-instated as one of a noble profession and teachers deserve respect from the society.

The department should support high-quality professional development initiatives by removing constraints that suppress teachers' personal growth. Teachers that already experience a presence of a calling may be in need of assistance regarding how to satisfy that calling, rather than assistance to help them determine their career goals, as teachers with a presence of a calling are highly likely to be decided and comfortable with their career choices. However, teachers that are experiencing a search for calling may need help in facilitating that search process. It is recommended that such teachers be assisted in examining and envisioning the degree to which they want to use their careers to help others, especially learners.

Teachers will be able to focus on the delivery of quality education once they feel supported by the school administration and by parents. Teachers must also be provided with the necessary support and training to succeed in their tasks. The most critical change is to allow teachers certain autonomy in carrying out their job in a school atmosphere that is pleasant and disciplined. Allow teachers adequate time for preparation, consultation and collaboration with knowledgeable colleagues. Conversely, the physical and psychological fatigue of teachers increases. Reduce teacher overload with administrative duties and minimize numerous reform initiatives such as pedagogic reform, organisational reform and technological reform.

Finally, enhance the professional image of teachers. Teachers and society must keep on believing that teaching is a positive contribution towards society. Moreover, the positive professional image of teachers both inside and outside the school system can only be

maintained by creating attractive working conditions and continuation of stringent educational requirements for teachers.

3.4.2 Future research.

A cross-sectional research design was utilised which limits the ability of this study to determine cause-and-effect relationships. Therefore longitudinal studies could be utilised to establish causal effects among all variables.

It is important to recognise that this was a small-scale study. Nevertheless, it has raised several important questions which merit future research - questions such as; how representative are the data collected; how do the majority of teachers feel about their jobs; which factors in particular contribute to their experience of meaningful work; do similar issues play a role for other professionals and how might teachers be encouraged to change towards a more positive work attitude?

Translation of all the questionnaires into other languages will be very beneficial, especially since 96% of participants were not mother-tongue English speakers. This would limit misinterpretations and language bias.

In order to increase the response rate, future researchers could consider a web-based distribution method for sending out questionnaires. Sending out questionnaires early in the year, before the individuals' workloads increase, could be beneficial to improve the response rate.

A great deal of future research is necessary in order to build a stronger theoretical framework from which to understand the variables. This study highlighted that the issue of delivering quality education is a serious concern and future research should include the development of more reliable and valid measurement instruments, a clear understanding of how teachers develop their experience of a sense of calling and exploring the extent to which the presence of a calling or the search for a calling changes over years of teaching and also how these constructs differ across demographic variables. Similarly, for teachers and other working adults, cutting-edge research is needed to understand how the experience of a sense of calling variables differ from other closely related career constructs and whether

experiencing a sense of calling is a truly unique construct in predicting important career outcomes.

3.5 Chapter summary

In this chapter, conclusions were drawn regarding the theoretical and empirical objectives as set out. Limitations of this study were discussed. Detailed recommendations were considered for practice and for future research in this field.

3.6 References

- Amabile, T. M., Hill, K. G., Hennessey, B. A., & Tighe, E. M. (1994). The Work Preference Inventory: Assessing intrinsic and extrinsic motivational orientations. *Journal of Personality and Social Psychology, 66*, 950-976.
- Dik, B. J., & Duffy, R. D. (2009). Calling and vocation at work: Definitions and prospects for research and practice. *The Counseling Psychologist, 37*, 424-450.
- Dik, B. J., Duffy, R. D., & Eldridge, B. M. (2009). Calling and vocation in career counselling: Recommendations for promoting meaningful work. *Professional Psychology: Research and Practice, 40*, 625-632.
- Duffy, R. D., Dik, B. J., & Steger, M. F. (2011). Calling and work-related outcomes: Career commitment as a mediator. *Journal of Vocational Behavior, 78*, 210-218.
- Elangovan, A. R., Pinder, C. C., & McLean, M. (2010). Callings and organizational behaviour. *Journal of Vocational Behavior, 76*, 428-440.
- Jones, L. K. (1989). Measuring a three-dimensional construct of career indecision among college students: A revision of the Vocational Decision Scale: The Career Decision Profile. *Journal of Counseling Psychology, 36*, 477-486.
- Hall, D. T., & Chandler, D. E. (2005). Psychological success: When the career is a calling. *Journal of Organizational Behavior, 26*, 155-176.
- Isaksen, J. (2000). Constructing meaning despite the drudgery of repetitive work. *Journal of Humanistic Psychology, 40*, 84-107.
- Müller, K., Alliata, R., & Benninghoff, F. (2009). Attracting and retaining teachers: A question of motivation. *Educational Management Administration & Leadership, 37*, 574-599.
- Nel, N., Muller, H., Hugo, A., Helldin, R., Backmann, O., Dwyer, H., & Skarlind, A. (2011). A comparative perspective on teacher attitude-constructs that impact on inclusive education in South Africa and Sweden. *South African Journal of Education, 31*, 74-90.
- O'Brien, G. E. (1992). Changing meanings of work. In J. F. Hartley, & G. M. Stephenson (Eds.), *Employment relations: The psychology of influence and control at work* (p. 44-66). Oxford, UK: Blackwell.
- Rosso, B. D., Dekas, K. H., & Wrzesniewski, A. (2010). On the meaning of work: A theoretical integration and review. *Research in Organizational Behavior, 30*, 91-127.

- Steger, M. F., & Dik, B. J. (2010). Work as meaning. In P. A. Linley, S. Harrington, & N. Page (Eds.), *Oxford handbook of positive psychology and work*. UK: Oxford University Press.
- Steger, M. F., Dik, B. J., & Duffy, R. D. (2012). Measuring meaningful work: The Work and Meaning Inventory (WAMI). *Journal of Career Assessment, 00(0)*, 1-16.
- Steger, M. F., Pickering, N. K., Shin, J. Y., & Dik, B. J. (2011). Calling in Work: Secular or Sacred? *Journal of Career Assessment, 18(1)*, 82-96.
- TIP: Concepts (2010). Retrieved September, 11, 2011, from <http://www.tip.psychology.org/attitude.html>.
- Treadgold, R. (1999). Transcendent vocations: Their relationship to stress, depression, and clarity of self-concept. *Journal of Humanistic Psychology, 39*, 81-105.
- Wrzesniewski, A., McCauley, C., Rozin, P., & Schwartz, B. (1997). Jobs, careers, and callings: People's relations to their work. *Journal of Research in Personality, 31*, 21-33.
- Zimbardo, P. G., & Leippe, M. (1991). *The psychology of attitude change and social influence*. New York, NY: McGraw-Hill.