

**JOB INSECURITY, PSYCHOLOGICAL WELL-BEING AND THE
RELATIONSHIP WITH FUTURE LITERACY**

Adriaan S. Bothma

Thesis submitted in fulfilment of the requirements for the degree Philosophiae Doctor in Industrial Psychology in the School of Behavioural Sciences at the North-West University (Vaal Triangle Campus):

Promoter: Prof. J. H. Buitendach

Vanderbijlpark

November 2005



REMARKS

The reader is reminded of the following:

- The text citations and reference list in this thesis are done in accordance with the regulations set down by the American Psychological Association (APA) Publication Manual (5th *edition*). The programme in Industrial Psychology at the North-West University prescribes to this style of reference.
- The editorial style specified by the *South African Journal of Psychology* (which agrees largely with the APA style) was used, but the APA guidelines were followed in constructing tables.
- The thesis is submitted in the form of three research articles.
- The financial assistance of the National Research Foundation (NRF) towards this research is hereby acknowledged. Opinions expressed and conclusions arrived at, are those of the author and are not necessarily to be attributed to the National Research Foundation.

ACKNOWLEDGEMENTS

I wish to take this opportunity to express my sincere gratitude to the following who played a major role during this endeavour:

- The Most High, for blessing me with the abilities, opportunities and motivation to be able to complete this study.
- My promoter, Professor Joey Buitendach, for her guidance, support and encouragement.
- My wife, Trudie for inspiring my purpose.
- Jaco Boëttger for his inspiration and vision.
- Kotie Potgieter whose inspiration encouraged me to achieve so much more in life.
- Dalene van Zyl for her inspiring encouragement.
- Professor Adri Boshoff for being such an outstanding example and an aspiring researcher.
- To Mss Erica Rood and San Geldenhuys (deceased) of the Ferdinand Postma library of the North-West University, for their devotion and continued assistance during the literature research.
- Ms Aldine Oosthuyzen for the statistical analyses of the data.
- The Financial Institution for giving me the opportunity to utilise their personnel and including them in this research.
- All the participants who took part in this research.
- Finally, I would like to extend my gratitude to Ms R Krügel, for professionally editing my work.

TABLE OF CONTENTS

	Page
Remarks	i
Acknowledgements	ii
Table of contents	iii
List of tables	iv
Summary	vii
Opsomming	ix
Chapter 1 INTRODUCTION, PROBLEM STATEMENT AND OBJECTIVES	
1.1 PROBLEM STATEMENT	1
1.2 THE ENVISIONED CONTRIBUTION OF THIS RESEARCH TO THE FIELD OF INDUSTRIAL PSYCHOLOGY	10
1.3 AIM OF THE RESEARCH	11
1.3.1 General Aim	11
1.3.2 Specific objectives	12
1.4 RESEARCH METHOD	12
1.4.1 Research design	12
1.4.2 Participants	13
1.4.3 Measuring instruments	13
1.4.4 Statistical analysis	15
1.4.5 Research procedures	17
1.5 OVERVIEW OF THE CHAPTERS	17
1.6 CHAPTER SUMMARY	17
REFERENCES	18
Chapter 2 RESEARCH ARTICLE 1	25
Chapter 3 RESEARCH ARTICLE 2	55
Chapter 4 RESEARCH ARTICLE 3	98

Chapter 5	CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS	Page
5.1	CONCLUSIONS	121
5.1.1	Conclusions regarding the theoretical objectives	121
5.1.2	Conclusions regarding the empirical objectives	124
5.2	LIMITATIONS OF THIS RESEARCH	130
5.3	RECOMMENDATIONS	131
5.3.1	Recommendations for the organisation	131
5.3.2	Recommendations for future research	133
	REFERENCES	137

LIST OF TABLES

Table	Description	
	Research Article 1	
Table 1	<i>Characteristics of the Participants</i>	34
Table 2	<i>Principal Components Matrix of the Future Literacy Questionnaire</i>	37
Table 3	<i>Descriptive Statistics: Cronbach Alpha, Standard Deviation, Means and Item-Inter Correlations for the Future Literacy Questionnaire</i>	38
Table 4	<i>Interpretation of the Future Literacy Scores</i>	39
Table 5	<i>Future Literacy Levels of the Participants for Factor 1: Positive Mindset Towards Future Possibilities (PM)</i>	39
Table 6	<i>Future Literacy Levels of the Participants for Factor 2: Anticipating, Planning and Preparing for Future Changes (AP)</i>	40

LIST OF TABLES (Continued)

Page

Table	Description	
Table 7	<i>MANOVA of Future Literacy and Work Category</i>	42
Table 8	<i>Future Literacy (Factor 1) of Participants in Different Work Categories.</i>	42
Table 9	<i>Future Literacy (Factor 2) of Participants in Different Work Categories.</i>	43
Table 10	<i>Results of t-tests Regarding Significant Differences Between the Demographical Variables of the Study Population in Relation to Future Literacy.</i>	44
Table	Description	
Research Article 2		
Table 1	<i>Characteristics of the Participants</i>	64
Table 2	<i>Principal Components Matrix of the Job Insecurity Questionnaire</i>	69
Table 3	<i>Principal Components Matrix of the General Perceived Self-efficacy Questionnaire</i>	70
Table 4	<i>Principal Components Matrix of the Work Locus of Control Questionnaire</i>	71
Table 5	<i>Principal Components Matrix of the Lot-R Questionnaire</i>	72
Table 6	<i>Descriptive Statistics of the Measurement Instruments</i>	72
Table 7	<i>Pearson Correlations Between Self-Efficacy, Job Insecurity Dispositional Optimism and Work Locus of Control</i>	73
Table 8	<i>MANOVA of Job Insecurity, Age, Work Category and Region</i>	76
Table 9	<i>Differences Between Job Insecurity of the Different Age Groups</i>	76
Table 10	<i>Differences Between Job Insecurity of the Different Work categories</i>	77

LIST OF TABLES (Continued)**Page**

Table	Description	
Table 11	<i>T-tests: Significant Differences, Gender and Qualifications</i>	78
Table 12	<i>Regression Analysis – Demographic Variables and Self-efficacy: Job Insecurity</i>	79
Table 13	<i>Regression Analysis – Demographic Variables and Work Locus of Control: Job Insecurity</i>	80
Table 14	<i>Regression Analysis – Demographic Variables and Dispositional Optimism: Job Insecurity</i>	81

Table Description**Research Article 3**

Table 1	<i>Characteristics of the Participants</i>	105
Table 2	<i>Principal Components Matrix of the Job Insecurity Questionnaire</i>	108
Table 3	<i>Descriptive Statistics of the Future Literacy Questionnaire and the Job Insecurity Questionnaire</i>	109
Table 4	<i>Correlations Between Future Literacy and Job Insecurity</i>	110
Table 5	<i>Interpretation of the Future Literacy Scores</i>	111
Table 6	<i>Results of t-tests Regarding Job Insecurity and Future Literacy: Significant Differences</i>	111
Table 7	<i>Regression Analysis Job Insecurity Demographic Variables and Future Literacy Factor 1: Positive Mindset Towards Future Possibilities (PM) and Factor 2: Anticipating, Planning and Preparing for Future Changes (AP)</i>	112

SUMMARY

Topic: Job insecurity, psychological well-being and the relationship with future literacy

Key terms: Future literacy, changing world of work, job insecurity, contextual disintegration, self-efficacy, work locus of control, dispositional optimism.

The new world of work has an enormous impact on the work-life of employees. Retrenchment, early retirement, unemployment and the demand for better performance are the result of massive restructurings, outsourcing, mergers and acquisitions. The old psychological contract, as well as lifelong employment, are becoming obsolete in a changing world of work. This leads to increased job insecurity in the workplace. There is substantial evidence in the literature that job insecurity is damaging to psychological health. Job insecurity is not only damaging the individual but impacts negatively on the organisation. Job insecurity leads to mistrust, lack of commitment and general dissatisfaction. In the end it will have a definite impact on organisational performance.

The empirical objective of this research was to investigate the relationship between job insecurity, psychological well-being and the relationship with future literacy.

A cross-sectional design with an availability sample ($n = 459$) was used. The sample was subjected to a specific programme of future literacy training (Map Your Life). Questionnaires were completed prior to the training programme. The reliability and construct validity of the measuring instruments acceptable. (Cronbach alpha coefficients adhere to the cut-off point of $> 0,70$) with the exception of the Dispositional Optimism Questionnaire (Cronbach alpha coefficient of 0,64).

Future literacy is an unknown concept and it was necessary to conceptualise the concept. No instrument to measure future literacy existed and it was necessary to compile such an instrument. A questionnaire consisting of 18 items was compiled to measure future literacy. Factor analysis revealed two factors that measured future literacy. Factor One

was named Positive Mindset Towards Future Possibilities and Factor Two, Anticipating, Planning and Preparing for Future Changes. The Cronbach alpha for Factor One was 0,76 and 0,81 for the second factor.

Results indicated statistical significant correlations (of a medium effect) between job insecurity, self-efficacy, dispositional optimism and work locus of control. Self-efficacy and dispositional optimism correlated negatively with job insecurity, indicating that job insecurity decreases as self-efficacy and dispositional optimism increases.

The results also indicated a significant negative correlation (medium effect) between job insecurity and future literacy. This implies that as job insecurity decreases future literacy increases. The negative correlation between future literacy and job insecurity indicates that candidates who are future literate experience less job insecurity. When candidates with high and low scores on future literacy were compared with one another, candidates who scored low on all the scales of future literacy experienced high levels job insecurity. Candidates who demonstrated high levels of future literacy experienced significantly lower job insecurity.

Black employees experienced significantly higher levels of future literacy when compared to White employees.

Multiple regression analysis indicated that self-efficacy, dispositional optimism, work locus of control and future literacy predicted job insecurity when controlling for biographical variables.

Limitations and recommendations regarding future research, as well as recommendations for the organisation were made.

OPSOMMING

Onderwerp: Werksonsekerheid, psigologiese welstand en die verwantskap met toekomsgeletterdheid.

Sleuteltermes: Toekomsgeletterdheid, veranderende wêreld van werk, werksonsekerheid, kontekstuele disintegrasië, selfdoeltreffendheid, werkloosheid, lokus van beheer, disposisionele optimisme.

Die veranderende wêreld van werk het 'n groot impak op die beroepslewe van werknemers. Afleggings, vervroegde aftrede, werkloosheid en die druk vir beter prestasie is die direkte gevolg van herstrukturering, uitkontraktering, samesmelting en "verkrygings" van maatskappye. Die ou psigologiese kontrak, sowel as "gewaARBorgde lewenslange werk", het verdwyn in 'n veranderende wêreld van werk. Hierdie veranderinge lei tot grootskaalse werksonsekerheid wat impakteer op die emosionele welstand van werknemers. Daar is substantiewe navorsingsresultate wat die negatiewe impak van werksonsekerheid op werknemers bevestig. Werksonsekerheid het nie alleen 'n impak op die emosionele welstand van werknemers nie, maar affekteer ook die organisasie negatief. Werksonsekerheid lei tot wantroue, 'n gebrek aan verbondenheid en algemene ontevredenheid. Werksonsekerheid sal in die langtermyn 'n definitiewe negatiewe impak op organisasies se prestasie hê.

Die empiriese doel van hierdie navorsing was om die verwantskap tussen werksonsekerheid, psigologiese welstand en die verwantskap met toekomsgeletterdheid te ondersoek.

Die ondersoekgroep het bestaan uit 'n beskikbaarheidssteekproef ($n = 459$). 'n Dwarsnee opname-ontwerp is gebruik. Die ondersoekgroep is blootgestel aan toekomsgeletterheidsopleiding (Map Your Life). Vraelyste is voor die aanvang van die opleiding voltooi. Die betroubaarheid en konstruktiewe geldigheid van die vraelyste was baie

goed (Cronbach alpha koëffisiente voldoen aan die afsnypunt van $> 0,70$). Die enigste uitsondering was die Disposisionele Optimisme Vraelys (Cronbach alpha koëffisient van 0,64).

Toekomsgeletterdheid is 'n onbekende begrip en dit was nodig om die berip te konseptualiseer. Aangesien daar geen meetinstrument bestaan wat toekomsgeletterdheid meet nie, is 'n meetinstrument opgestel om die konstruk te meet. 'n Vraelys bestaande uit 18 items is opgestel om toekomsgeletterdheid te meet. Faktoranalise het twee Faktore opgelewer. Faktor een is genoem: Positiewe Paradigma Jeens Toekomstige Geleenthede en faktor twee: Antisipering, Beplanning en Voorbereiding vir Toekomstige Veranderinge. Die vraelys het voldoende betroubaarheid getoon: Cronbach alpha koëffisient was 0,76 vir faktor een en 0,81 vir faktor twee.

Statisties betekenisvolle korrelasies (medium effek) is verkry tussen werksonsekerheid, selfdoeltreffendheid, disposisionele optimisme en werk lokus van beheer. Selfdoeltreffendheid, en disposisionele optimisme het negatief met werksonsekerheid gekorreleer, wat aandui dat werksonsekerheid afneem soos wat selfdoeltreffendheid, en disposisionele optimisme toeneem.

'n Betenisvolle negatiewe verwantskap (medium effek) is ook verkry tussen werksonsekerheid en toekomsgeletterdheid. Dit impliseer dat soos wat werksonsekerheid afneem neem toekomsgeletterdheid toe. Die negatiewe verwantskap tussen werksonsekerheid en toekomsgeletterdheid impliseer dat kandidate wat toekomsgeletterd is, minder werksonsekerheid ervaar. Wanneer kandidate met hoë en lae tellings op toekomsgeletterdheid met mekaar vergelyk word, ervaar die kandidate met lae tellings werksonsekerheid. Kandidate wat hoë tellings behaal het op toekomsgeletterdheid ervaar betekenisvol minder werksonsekerheid.

Swart werknemers het statisties betekenisvolle hoër vlakke van toekomsgeletterdheid getoon waneer hulle met Blanke werknemers vergelyk word.

Meervoudige regressieanalise het aangetoon dat selfdoeltreffendheid, disposisionele optimisme, werk lokus van beheer en toekomsgeletterdheid voorspel werksonsekerheid terwyl daar gekontroleer is vir biografiese veranderlikes.

Die beperkinge van hierdie navorsing sowel as aanbevelings vir toekomstige navorsing en aanbevelings vir die maatskappy is gemaak.

CHAPTER 1

1. INTRODUCTION

This thesis is about job insecurity, psychological well-being and the relationship with future literacy. In this chapter, the problem statement will be discussed. The research objectives, which include the general and specific objectives, will be discussed. The research method is explained and an overview of the chapters is given.

1.1. PROBLEM STATEMENT

Internationally the changing world of work, its implications, as well as the demand of organisations for better performance and competitiveness is taking its toll on the well-being of employees (Moses, 1998). The results of the changing world of work are large-scale workforce reductions, outsourcing, job insecurity and unemployment (Cascio, 1995; Moses, 1998). The once valued social contract that guaranteed job security has been replaced by the reality that employees remain employed as long as they can make a contribution to and their skills and knowledge are needed by the organisation (Smithson & Lewis, 2000).

Handy (2001) stated that by 2000 fulltime employment in Britain had fallen to 40% of the population. The permanent relationship between employer and employee that used to lead to retirement has changed to a temporary or contractual relationship. In Australia, in 1983 less than one in six workers were employed on a contractual basis, but by 1994 this figure had risen to one in four workers (Considine, 2001). Micro-organisations are becoming the organisations of the future. In Britain the so-called micro-enterprises employing less than five people make up 89% of all businesses. This means that only 11% of businesses in Britain employ more than five people (Handy, 2001).

In South Africa, as in the rest of the world, organisations are becoming smaller due to the demand for better performance (Roux, 2002). The economic environment in South Africa

has changed dramatically during the last ten years due to increased globalisation (Muller, 2002). Globalisation has forced companies to compete with the best in the world, which leads to fierce competition, cost savings and reduction of the labour force. The once stable, predictable, and controlled environment has become complex, out of control and unpredictable (Boöttger & Dippenaar, 2002). Change in South Africa over the last ten years was not only limited to the economical environment but also included political change (Roux, 2002). It is the opinion of the researcher that the political change in South Africa is still in the introductory phase as Black Economic Empowerment is gaining momentum. The economical and political change as well as the shrinking labour market leads to increased job insecurity (Moses, 1998; Roux, 2002).

According to Boöttger and Dippenaar (2002) increased change results in the experiencing of contextual disintegration. Boöttger and Dippenaar (2002, p. 27) define contextual disintegration as when "the meaningfulness of operational models, structures and rules to a specific business environment cease to be relevant when that environment changes completely". To avoid contextual disintegration employees must be repositioned (cognitive repositioning) in terms of the new business reality. According to Roux (2002), anticipation of the future improves individuals' prospects for survival. It will at least limit the experience of contextual disintegration. Although future planning is very difficult due to turbulence and uncertainty, it could expand people's insight and understanding to cope with a wide variety of future possibilities (Roux, 2002).

Another major change in the economic and social environment which had a considerable influence on the world of work is the shift from the industrial era to the information or knowledge era (Muller, 2002). The majority of workers in the developed world today are employed in the services sector (Roux, 2002). In the United States of America and Britain roughly 73 % of the labour force is employed in the services sector (Roux, 2002). Moses (1998) states that the economic transformation from production to information is displacing millions of workers. The effects of the changing world of work, globalisation, the demand for better performance, competitiveness, mergers and acquisitions, outsourcing and job loss will increase job insecurity in the workplace (Sverke, Hellgren,

Näswall, Chirumbolo, De Witte & Goslinga, 2004). Higher production targets with less manpower combined with the constant threat of job loss will eventually take its toll on the psychological well-being of employees (Sverke & Hellgren, 2002).

Job insecurity is conceptualised in the literature as a multidimensional concept, a stressor or a global perspective. (Kinnunen, Mauno, Nätti & Happonen, 1999; Sverke et al. (2004) The multidimensional definition is broad and includes aspects like the threat of job loss as well as the threat of losing important dimensions of the job. Job insecurity as a stressor explains how job insecurity affects the emotional well-being of employees. The global perspective explains job insecurity as a construct consisting of cognitive and affective job insecurity. The multidimensional definition will be discussed next.

Van Vuuren (1990) gives a broad definition of job insecurity that includes three major elements. It is a subjective perception that varies from person to person; it implies uncertainty about the long-term future and the continuance of a job. Kinnunen et al. (1999) argue that job insecurity is a function of objective circumstances and personal attributes and therefore a multidimensional definition is appropriate. According to Kinnunen et al. (1999) job insecurity is not only limited to uncertain environments or organisations, but may appear in seemingly secure environments. Furthermore the population that experiences job insecurity is usually larger than the workers who actually lose their jobs. Kinnunen et al. (1999) conclude that job insecurity is influenced by organisational conditions such as change and communication, individual and positional characteristics like age, gender, socio-economic status and personality characteristics, which include locus of control, optimism-pessimism and sense of coherence. Greenhalgh and Rosenblatt (1984) perceive job insecurity as multidimensional consisting of five components; including the quantity of features that are threatened, the relative importance of the job features that are threatened, the perceived threat of various changes that might impact negatively, importance of the combined effect of the threats named above and powerlessness. Sverke et al. (2004) state that job insecurity is also a subjective perception and is perceived in different ways by people; depending on their specific circumstances.

With reference to job insecurity as a stressor De Witte (1999) and Burchell (1999) state that job insecurity has a significant negative influence on the emotional well-being of the individual. It reduces the level of job satisfaction and leads to psychosomatic complaints. Prolonged job insecurity is more detrimental and acts as a chronic stressor which negative effects will become more potent as time goes by (Dekker & Schaufeli, 1995). The harmful impact of job insecurity is clearly shown when two groups of people were compared in terms of knowledge of redundancy and the possibility of becoming redundant in the future. The group, who knew that redundancy was a reality, experienced improved psychological well-being in comparison with the group who was still uncertain. The unpredictability and the uncontrollability of job insecurity thus have a negative impact on the psychological well-being of people (De Witte, 1999).

In terms of the global perspective of job insecurity De Witte (2000) states that job insecurity consists of cognitive and affective job insecurity. Cognitive job insecurity refers to the possibility of becoming unemployed while affective job insecurity refers to the emotional experience of the possible threatening situation. A typical question about cognitive job insecurity is: "I am worried about keeping my job". An example of affective job insecurity is "I feel insecure about the future of my job". For the purpose of this study job insecurity is defined as uncertainty about the continuance of a person's present job as well the potential of losing one's job (De Witte, 1999). The global measure of job insecurity as constructed by De Witte (2000) was used in this study.

This research focuses on the relationship between job insecurity and factors that might be related to job insecurity, like self-efficacy, work locus of control, future literacy and dispositional optimism. In the next paragraphs research about the relationship between job insecurity, self-efficacy, dispositional optimism and work locus of control will be discussed. It should be mentioned that very little research has been undertaken regarding the relationship between job insecurity, self-efficacy and work locus of control (Elbert, 2002).

Self-efficacy and work locus of control form part of the salutogenic paradigm (Strümpfer, 1995). Salutogenesis refers to the paradigm that investigates a person's ability to manage stress, to stay healthy and perform well despite the presence of a variety of stressors (Strümpfer, 1995). Antonovsky (1979) stated that individuals develop means to adapt to the different stressors in life by their practical experiences.

Self-efficacy is defined as the individual's belief that he/she is capable of performing a task successfully in a variety of situations (Eden & Zuk, 1995; Robbins, 2001). Elbert (2002) reported a positive correlation between total job insecurity and self-efficacy, implicating that low job insecurity is associated with higher levels of self-efficacy. Soehnlein (1998) found that high levels of self-efficacy is associated with lower levels of job insecurity. This means that respondents with high self-efficacy experience less job insecurity, due to the reason that the respondents experience feeling of self-determination.

Self-efficacy also influences work locus of control. Rothmann and Van Rensburg (2001) found that respondents with low self-efficacy tend to have an external locus of control. Low self-efficacy is also associated with depression, anxiety and helplessness (Bandura, 1989). A possible reason is that respondents do not have confidence in their own abilities.

With reference to work locus of control, general locus of control is defined as the degree to which people believe they are masters of their own fate (Robbins, 2001). Work locus of control refers to locus of control in the work domain (Spector, 1988). According to Spector (1988) work locus of control refers to as a generalised expectancy where outcomes in life are either controlled by one's own actions (internally) or by other forces (externally). In the organisational milieu rewards and career outcomes are either attributed to own actions or other forces. Internal locus of control is associated with high levels of job satisfaction, commitment, involvement and low levels of stress, absenteeism, and turnover (Bothma & Schepers, 1997; Coetzee & Schepers, 1997; Le Roux, Schmidt & Schepers, 1997; Pretorius & Rothmann, 2001; Spector, 1982). A

possible reason for this is that respondents took responsibility for their own actions. In the next paragraphs, the concept of dispositional optimism will be discussed.

Dispositional optimism can be defined as a person's positive outlook towards life events (Scheier, Carver & Bridges, 1994). Dispositional optimism has been identified as an important factor in physical well-being, especially for people experiencing stress (Cassidy, 2000). Research done by Fry (1995), demonstrated that optimism significantly moderated the relationship between daily hassles and self-esteem. Optimism is also associated with better immune functioning and lower neuroticism scores (Ebert, Tucker & Roth, 2002; Scheier, Weintraub & Caver, 1986; Shea, Burton & Girgis, 1993). Ebert et al. (2002) described dispositional optimism as a psychological resistance factor, which are related to positive outcomes. Positive outcomes being predicted by optimism include coping with major life stresses, adjusting to major life transitions, and more positive responses to minor stresses (Hasan & Power, 2002).

Based on the previous studies optimism seems to be an important dispositional quality that could be related to well-being. According to Hasan and Power (2002, p. 187) "...optimistic people make stable attributions to positive events and unstable attributions to negative events, where as pessimistic people do just the opposite..." However, it seems as if optimistic people are more capable of handling stress. They rely on strategies which could help to control or adapt to aspects of stressors, they normally seek information, and are more concerned in planning and positive re-framing (Jackson, Weiss & Lundquist, 2001). Pessimistic people on the other hand tend to use strategies such as negative coping, cognitive or behavioural avoidance, denial, disengagement and/or substance abuse (Harju & Bolen, 1998; Jackson et al., 2001). As a result, optimism has mostly been linked to active, persistent, health-oriented coping, while pessimism is more likely to be linked with affective distress, health concerns and negative coping (Harju & Bolen, 1998).

Future literacy is defined as a future orientation in the sense that a person understands the changing world of work, its implications on work and personal life as well as the

formulation of strategies to adapt and thrive in the changing world of work (Boëttger & Dippenaar, 2002). It is the opinion of the researcher that the concept of literacy is usually conceptualised in terms of specific skills for individuals like reading and writing, personal finance and supervisory skills. Literacy as a concept is not related to knowledge of the future or future literacy as portrayed in this study. No research was found on the concept of future literacy as portrayed in this study. In terms of literacy Mawer (1999) argues that basic skills required in the past were the three r's: reading, writing and (a)rithmetic. Due to the changing world of work, the basic skills required of individuals have been greatly extended to include a variety of skills. Mawer (1999) states that skills like analysing information, oral communication, problem solving, creative thinking, goal setting, interpersonal skills, negotiation, using technology, organisational effectiveness and leadership are essential in the changing world of work. Surveys in organisations reveal that the workforce is ill-prepared in terms of the basic or fundamental skills described above (Mawer, 1999). The researcher concludes that if the workforce is ill-prepared in terms of the basic skills an even greater need exists with reference to future literacy.

For the purpose of this study future literate individuals can be described as individuals displaying the following characteristics (Boëttger & Dippenaar, 2002; Moses 1998; Roux, 2002): They can adapt to changing circumstances. They have a tendency to anticipate future changes and prepare for it (pro-active individuals). They possess higher levels of self-efficacy in the sense that they have the confidence to perform a variety of tasks successfully. They have an internal work locus of control by personally taking responsibility for the outcomes of situations. They are financially literate by striving for financial independence. Future literate individuals know that it is not wise to depend on organisations for financial security. They practice lifelong learning by utilising every opportunity to learn new skills. They have short and long term goals which they actively pursue. The above description of future literacy leads to the hypothesis that future literate people could experience lower levels of job insecurity. With reference to the measurement of future literacy no instrument that measured the construct or aspects of the construct could be found. The research therefore embarked upon the construction of a

Future Literacy Questionnaire (FLQ), the [psychometric properties of which still have to be determined.

The relationship between job insecurity and biographical variables were also investigated. The most frequent biographical variables investigated in research are age and gender (Näswall & De Witte 2003). Mohr (2000) found a strong positive correlation between the level of job insecurity and age. Hartley, Jacobson, Klandermans & Van Vuuren (1991) confirmed the results of Mohr (2000) when he reported that older employees experience more job insecurity than younger employees. In South Africa the finding was also, confirmed by the research of Heymans (2000), Sauer (2003) and Buitendach (2004).

Kinnunen et al. (1999) found higher levels of job insecurity among men. A study of Sverke, Hellgren, Näswall, Chirumbolo, De Witte, and Goslinga (2001) demonstrated that men show a stronger relation with the stress of insecure employment when compared to women. Since men are traditionally perceived as the provider for the family they will experience more strain when facing the threat of losing their jobs (Warr, 1987).

According to Näswall and De Witte (2003) social status affects the level of job insecurity experienced. The type of work a person is doing like blue-collar worker, white-collar worker, professional, specialist or manager indicates his/her social status might therefore affect a person's experience of job insecurity. Blue-collar workers may be more dependant on their income in comparison with white-collar workers and managers (Gallie, White, Cheng & Tomlinson, 1998; Kinnunen et al., 1999). It could be reasoned that non-manual workers (white-collar workers) who usually have a higher level of education will be less vulnerable to job loss in contrast to workers with lower levels of education (Schaufeli, 1992).

The education level that indicates the employability of employees (Fugate & Ashforth, 2003; Gallie et al., 1998; Sverke & Hellgren, 2002) will affect the choices they have on the labour market. Higher education might lead to less vulnerability in the labor market

as Hartley et al. (1991) found that respondents with higher levels of education experienced less job insecurity. In a South African study Bosman (2005) found no correlation between qualifications and job insecurity. Buitendach, Oosthuyen and van Wyk (2005) found that individuals with qualifications lower than Grade 12, showed higher levels of affective job insecurity in comparison with individuals with a degree and postgraduate qualifications. Individuals with a diploma or degree showed higher levels of cognitive job insecurity. The latter could indicate that individuals with a degree and postgraduate qualifications experience job insecurity on a cognitive level in comparison with individuals with qualifications lower than Grade 12 who experience job insecurity on an affective level.

In conclusion to the negative effect of job insecurity it is the opinion of the researcher that one of the biggest challenges facing organisations currently, is to facilitate the process that shifts the responsibility and ownership for future literacy from the employer to the employee. The employer should also develop and provide growth opportunities for employees that will enhance their career possibilities in- and outside the organisation. Most employer organisations do not have any specific plan or strategy to orientate employees towards self-reliance. Mawer (1999) argues that development of the employee is becoming a major determining factor for retaining his/her redesigned job. Smithson and Lewis (2000) suggest that organisations provide training, self-development and other benefits to compensate for the loss of job security. Wallulis (1998) argues that the new social contract has moved away from the traditional parent relationship in organisations where organisations provided job security. The new social contract is based on an adult relationship where the company is not responsible for the welfare of the employees. Wallulis (1998) strongly supports the idea that organisations are indeed responsible to enhance employees' employability in the absence of job security.

This research was undertaken in a large financial institution in South Africa which has recently undergone major changes. This organisation has decided to send all their employees for future literacy training programme. The purpose of the future literacy training programme is to prepare their employees for further future changes.

The changing world of work has an enormous impact upon the wellness of employees. The mindset in the new workplace is that job security is located within the skills and competencies of individuals rather than in the structures of the organisation. Due to optimisation and cost saving organisations will utilise the skills and competencies of individuals as long as organisations need them.

Based on the research done on job insecurity and the factors that influence job insecurity the following research questions arise:

- How is future literacy, job insecurity, self-efficacy, work locus of control and dispositional optimism conceptualised in the literature?
- What is the internal consistency and reliability of the Future Literacy Questionnaire (FLQ)?
- What are the future literacy levels of the participants?
- Is there a relationship between job insecurity, self-efficacy, work locus of control and dispositional optimism?
- Is there a relationship between job insecurity and future literacy?
- Are there any differences between demographic groups such as age, race, gender and work category with reference to job insecurity and future literacy?
- What is the predictive value of self-efficacy, work locus of control and dispositional optimism with regard to job insecurity?
- Does future literacy have any predictive value with regard to job insecurity?

1.2 THE ENVISIONED CONTRIBUTION OF THIS RESEARCH TO THE FIELD OF INDUSTRIAL PSYCHOLOGY

This research will result in the conceptualising of the concept of future literacy. Future literacy is defined as a future orientation in the sense that a person understands the changing world of work, its implications on work and personal life as well as the formulation of strategies to adapt and thrive in the changing world of work (Boëttger & Dippenaar, 2002; Moses 1998). There is no clear definition with regard to future literacy

in the South African literature. The changing world of work demands that individuals adapt to constant change. Future literacy and future literacy training are therefore important aspects in helping individuals to adapt in the changing world of work.

The measurement of future literacy will also be investigated. The FLQ will be developed and tested for internal consistency. This could stimulate research as to the effect of future literacy on the individuals in a changing world of work.

The relationship of constructs like self-efficacy, work locus of control, and dispositional optimism with job insecurity will be investigated. The negative effect of job insecurity on psychological well-being and organisational performance make research about alleviating the effect of job insecurity necessary.

The relationship between job insecurity and future literacy will also be investigated to determine if future literate individuals experience less job insecurity in comparison with individuals who are not future literate. If future literate individuals experience less job insecurity, future literate training could be utilised as an intervention to decrease the effect of job insecurity.

The difference between demographic groups in relation to future literacy and job insecurity will also be investigated.

1.3 AIM OF THE RESEARCH

1.3.1 General aim

The general aim of this research is to investigate the relationship between job insecurity, psychological well-being (self-efficacy, work locus of control, dispositional optimism) and the relationship with future literacy.

1.3.2 Specific objectives

- To conceptualise future literacy, job insecurity, self-efficacy, work locus of control and dispositional optimism;
- To determine the internal consistency and reliability of the Future Literacy Questionnaire (FLQ);
- To determine the future literacy levels of the participants;
- To determine whether there is a relationship between job insecurity, self-efficacy, work locus of control, and dispositional optimism;
- To determine if there is a relationship between job insecurity and future literacy;
- To determine if there are any differences between demographic groups such as age, race, gender and work category with reference to job insecurity and future literacy;
- To determine the predictive value of self-efficacy, work locus of control and dispositional optimism with regard to job insecurity;
- To determine the predictive value of future literacy with regard to job insecurity.

1.4 RESEARCH METHOD

The research method consists of a literature review and an empirical study. The results of the research will be presented in the form of three research articles.

1.4.1 Research design

A cross-sectional design (Burns & Grove, 1993) will be used for this study. Cross-sectional designs are appropriate where groups of subjects at various stages of development are studied simultaneously, whereas the survey technique of data collection gathers information from the target population by means of questionnaires (Burns & Grove, 1993).

1.4.2 Participants

An availability sample ($n = 459$) will be used. The financial institution where the research was undertaken has decided to subject all their employees to a specific programme of future literacy (Map Your Life) training. The purpose of this training will be to prepare them for future changes in the organisation. The questionnaires for this study will be completed prior to the training programme after the reasons for the research had been discussed with the participants.

1.4.3 Measuring instruments

The Job Insecurity Questionnaire (JIQ) that was developed by De Witte (2000) will be used to measure job insecurity. The questionnaire consists of 11 items arranged along a 5-point Likert type scale. The JIQ measures cognitive job insecurity and affective job insecurity. Cognitive job insecurity refers to the possibility of becoming unemployed while affective job insecurity refers to the emotional experience of the possible threatening situation. A typical item about cognitive job insecurity is: "I am worried about keeping my job". An example of item about affective job insecurity is "I feel insecure about the future of my job". De Witte (2000) reported a Cronbach alpha coefficient of 0,92 for the total score of job insecurity, 0,90 for cognitive job insecurity and 0,85 for affective job insecurity. In South African studies Heymans (2002) obtained an alpha coefficient of 0,81 for the total score of job insecurity, 0,64 for cognitive insecurity and 0,85 for affective insecurity. Moeletsi (2003) also reported an alpha coefficient of 0,93 for the total score, 0,91 for cognitive insecurity and 0,86 for affective insecurity.

The General Perceived Self-efficacy Scale (GPSES) developed by Tipton and Worthington (1982) will be used to measure self-efficacy. Bandura (1997) defines self-efficacy as an individual's belief in his/her capabilities to organise and execute the courses of action required to manage prospective situations. Robbins (2001) defines self-efficacy as an individual's perception of how capable he/she is to perform a task. The

higher a candidate's self-efficacy the more confidence is displayed for being successful. The GPSES is a 10-item questionnaire to measure the self-efficacy of individuals in a variety of situations. Typical items of the self-efficacy scale are "I can always manage to solve difficult problems if I try hard enough" and "I can usually handle what comes my way". Reliability coefficients higher than 0,80 were obtained by Rothmann and Van Rensburg (2001) and Elbert (2002).

The Work Locus of Control Scale (WLCS), developed by Spector, (1988) will be used to measure work locus of control. Work locus of control refers to the degree to which people believe that they determine their own destiny. Individuals with an internal work locus of control believe that they control what happens to them while individuals with an external work locus of control, blame external forces for their progress or failure. People with an external locus of control do not take responsibility for their own actions. They tend to blame the outcome of situations on others, usually external factors out of their control. Examples of items included in the work locus of control questionnaire are: "Making money is primarily a matter of luck" and "Promotions are given to employees who perform well in their job". Cronbach alpha coefficients reported for the WLCS vary from 0,70 to 0,75 (Elbert, 2002; Rothmann & Van Rensburg, 2001; Spector, 1988).

The Life Orientation Test-Revised (LOT-R) developed by Scheier, Weintraub and Carver (1986) will be used to measure dispositional optimism. Six items contribute to the optimism score and four items are fillers. The LOT-R is measured on a 5-point Likert scale, ranging from 5 = "I strongly agree" to 1 = "I strongly disagree". Examples of items in the questionnaire are: "In uncertain times I usually expect the best" and "I hardly ever expect things to go my way". The LOT-R was found to have adequate internal consistency (Cronbach's alpha = 0,78) and excellent convergent and discriminative validity (Scheier et al., 1986). Based on a sample of 204 college students, Harju and Bolen (1998) obtained a Cronbach alpha coefficient of 0,75.

Future Literacy (FL). A questionnaire consisting of 18 items was compiled by the researcher to measure future literacy. This was based on extensive research on the

concept of future literacy. The individual items are also based on attributes of future literacy as portrayed by Boöttger and Dippenaar (2002), Moses (1998) and Muller (2002). This internal consistency of the instrument will be assessed during the research. No research on any such measurement could be found in the literature. Typical items included in the Future Literacy Questionnaire are items related to the reality of the changing world of work as well as a positive attitude towards the future. Typical items are: "Companies don't expect loyalty any more, only results", "I feel positive about my abilities to handle future changes", "I anticipate future changes and prepare myself for it", "I have a plan in place if I should lose my job" and "I use every opportunity to learn new things".

1.4.5 Statistical analysis

The data analysis will be carried out with the help of the SAS programme (SAS Institute, 2000) and the SPSS-programme (SPSS, 2003). These programmes will be used to carry out the statistical analysis regarding reliability, validity, construct equivalence and predictive bias of the measuring instruments, descriptive statistics, t-tests analysis of variance and correlation coefficients. The AMOS programme will be used to carry out structural equation modelling (Arbuckle, 1997).

The Product Moment correlation coefficient will be used to determine the way in which one variable relates to another. According to Cohen (1988) the following cut-off points are recognised for determining practical significance:

$r \geq 0,30$ medium effect

$r \geq 0,50$ large effect

Values larger than $r = 0,30$ will be regarded as practically significant for the purposes of this research.

Multivariate analysis of variance (MANOVA) will be used to determine the significance of differences between the experiencing of job insecurity and future literacy of the demographic groups, such as age, qualifications, gender, regions and work category.

MANOVA tests whether mean differences among groups on a combination of dependent variables are likely to have occurred by chance (Tabachnick & Fidell, 2001). In MANOVA a new dependent variable that maximizes group differences is created from the set of dependent variables. One-way analysis is then performed on the newly created dependent variable. Wilk's Lambda will be used to test the significance of the effect. Wilk's Lambda is a likelihood ratio statistic of the data under the assumption of equal population mean vectors for all groups against the likelihood under the assumption that the population mean vectors are identical to those of the sample mean vectors for the different groups. When a significant effect is discovered in MANOVA, ANOVA will be used to discover which independent variables were affected. Because multiple ANOVAS are used, a Bonferroni type adjustment will be made for Type one error. The Tukey test will be carried out to indicate which groups differed significantly when ANOVAS are calculated.

The following formula will be used to determine the practical significances (d) when t -tests are used (Steyn, 1999):

$$d = (\text{Mean}_A - \text{Mean}_B) / \text{RMSE}$$

where

Mean_A = Mean of the first group

Mean_B = Mean of the second group

RMSE = Root Mean Square Error

A cut-off point of 0,50 (medium effect) (Cohen, 1988) is set for the practical significance of the differences between means.

Confirmatory and exploratory factor analysis will be used to assess the validity and reliability of the questionnaires used in this research. Factor analysis is a mathematical procedure to cluster or group items to determine to which grouping each item or groups of items belong (Kerlinger & Lee, 2000).

A multiple regression analysis will be conducted to determine whether self-efficacy, work locus of control and dispositional optimism have predictive value with regard to job

insecurity. Furthermore multiple regression analysis will also be used to determine whether future literacy hold predictive value with regards to job insecurity.

1.4.6 Research procedures

The measuring battery will be compiled. A letter requesting participation and motivation for research will be included. Ethical aspects regarding the research will be discussed with the participants. The test battery will be administered in small groups at the different workplaces on suitable dates.

1.5 OVERVIEW OF THE CHAPTERS

In chapter 2 the conceptualisation and measurement of future literacy are discussed. The relationship between job insecurity, self-efficacy, work locus of control and dispositional optimism are discussed in chapter 3. In chapter 4 the relationship between job insecurity and future literacy is discussed. Chapter 5 presents the conclusions, limitations and recommendations.

1.6 CHAPTER SUMMARY

In this chapter the problem statement and research objectives were discussed. The research methods as well as the measuring instruments were explained, followed by a brief discussion of the chapter outline of this thesis.

REFERENCES

- Antonovsky, A. (1979). *Health, stress and coping: New perspectives on mental and physical well-being*. San Francisco, CA: Jossey-Bass.
- Arbuckle, J. L. (1997). *Amos 4.0*. Chicago, IL: Smallwaters.
- Bandura, A. (1989). Social cognitive theory. *Annals of Child Development*, 6, 1-60.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Boëttger, J., & Dippenaar, H. (2002). *Inspirational leadership through visual knowledge management*. Johannesburg: Jacana Publishers.
- Bosman, J. (2005). *Job insecurity and wellness of employees in a government organisation*. Unpublished doctoral thesis, North-West University, Vaal Triangle Campus, South Africa.
- Bothma, A. C., & Schepers, J. M. (1997). The role of locus of control and achievement motivation in the work performance of black managers. *Journal of Industrial Psychology*, 23(3), 44-52.
- Buitendach, J. H. (2004). *Job insecurity and job satisfaction of employees in selected organisations in South Africa*. Unpublished doctoral thesis, North-West University, Potchefstroom Campus, South Africa.
- Buitendach, J. H., Oosthuizen, S. A., & Van Wyk, C. de W. (2005). Predicting job insecurity from background variables. *South African Journal of Industrial Psychology*, 31(3), 70-78.
- Burchell, B. J. (1999). The unequal distribution of job insecurity. *International Review of Applied Economics*, 13, 437-459.
- Burns, N., & Grove, S. K. (1993). *The practice of nursing research: Conduct, critique, and utilisation* (2nd ed.). Philadelphia, PA: W. B. Saunders.
- Cascio, W. F. (1995). Whither industrial and organizational psychology in a changing world of work. *American Psychologist*, 50, 928-939.
- Cassidy, T. (2000). Social background, achievement motivation, optimism and health: A longitudinal study. *Counselling Psychology Quarterly*, 13, 399-413.

- Coetzer, E. L., & Schepers, J. M. (1997). Die verband tussen lokus van beheer en die werkprestasie van swart bemarkers in die lewensversekeringsbedryf. *Tydskrif vir Bedryfsielkunde*, 32(1), 34-41.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Orlando, FLA : Academic Press.
- Considine, J. (2001). The changing nature of work. *Business Date*, 9, 1-5.
- Dekker, S. W. A., & Schaufeli, W. B. (1995). The effects of job insecurity on psychological health and withdrawal: A longitudinal study. *Australian Psychologist*, 30, 57-63.
- De Witte, H. (1999). Job insecurity and psychological well-being: Review of the literature and exploration of some unresolved issues. *European Journal of Work and Organizational Psychology*, 8, 155-177.
- De Witte, H. (2000). Arbeidsethos en jobonzekerheid: Meting en gevolgen voor welzijn, tevredenheid en inzet op het werk. (Labour ethics and job insecurity: Measurement and consequences for well-being, satisfaction and labour input). In Bouwen, R., De Witte, K., De Witte, H., & Taillieu, T. (Reds.), *Van groep tot gemeenschap* (pp. 325-350). Liber Amicorum Prof. Dr. L. Lagrou. Leuven, Belgium: Garant.
- Ebert, S. A., Tucker, D. C., & Roth, D. L. (2002). Psychological resistance factors as predictors of general health status and physical symptoms reporting. *Psychology, Health & Medicine*, 7, 363-375.
- Eden, D., & Zuk, Y. (1995). Seasickness as a self-fulfilling prophecy: Raising self-efficacy to boost performance at sea. *Journal of Applied Psychology*, 80, 628-635.
- Elbert, J. E. (2002). *Job insecurity and psychological strengths of service workers in a parastatal*. Unpublished master's dissertation, P U for CHE, Vanderbijlpark.
- Fry, P. S. (1995). Perfectionism, humor, and optimism as moderators of health outcomes and determinants of coping styles of women executives. *Genetic, Social & General Psychology Monographs*, 121, 213-246.
- Fugate, M., & Ashforth, B. E. (2003). Employability: The construct, its dimensions, and applications. *Academy of management proceedings*: j1-j6.
- Gallie, D., White, M., Cheng, Y., & Tomlinson, M. (1998). *Restructuring the employment relationship*. Oxford, UK: Clarendon.

- Greenhalgh, L., & Rosenblatt Z. (1984). Job insecurity: Towards conceptual clarity. *Academy of Management Review*, 9, 438-448.
- Handy, C. (2001). *The elephant and the flea: Looking backwards to the future*. London: Random House.
- Hartley, J., Jacobson, D., Klandermans, B., & Van Vuuren, T. (1991). *Job insecurity: Coping with jobs at risk*. London: Sage.
- Hasan, N., & Power, T. G. (2002). Optimism and pessimism in children: A study of parenting correlates. *International Journal of Behavior Development*, 26, 185-191.
- Harju, B., & Bolen, L. M. (1998). The effects of optimism on coping and perceived quality of life of college students. *Journal of Social Behaviour and Personality*, 13, 185-200.
- Heymans, D. R. (2000). *The relationship between job insecurity, job satisfaction and organisational commitment of maintenance workers in a parastatal*. Unpublished master's dissertation, P U for CHE, Vanderbijlpark.
- Jackson, T., Weiss, K., & Lundquist, J. J. (2001). Does procrastination mediate the relationship between optimism and subsequent stress? *Journal of Social Behaviour and Personality*, 16, 203-213.
- Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioral research*. Orlando, FLA: Harcourt Publishers.
- Kinnunen, U., Mauno, S., Nätti, J., & Happonen, M. (1999). Perceived job insecurity: A longitudinal study among Finnish employees. *European Journal of Work and Organisational Psychology*, 8, 243-260.
- Le Roux, C. A., Schmidt, C., & Schepers, J. M. (1997). Achievement motivation, locus of control and individually as predictors of participative management in the South African educational environment. *South African Journal of Industrial Psychology*, 23(3), 1-8.
- Mawer, G. (1999). *Language and literacy in workplace education: Learning at work*. New York: Addison Wesley Longman Inc.
- Moeletsi, M. M (2003). *Psychological empowerment, job satisfaction, organisational commitment, and job insecurity in divisions of a packing organisation*. Unpublished Master's dissertation, P U for CHE, Vanderbijlpark.

- Mohr, G. (2000). The changing significance of different stressors after the announcement of bankruptcy: A longitudinal investigation with special emphasis on job insecurity. *Journal of Organizational Behaviour, 21*, 337-359.
- Moses, B. (1998). *Career intelligence*. San Francisco, CA: Barrett-Koehler Publishers.
- Näswall, K., & De Witte, H. (2003). Who feels insecure in Europe? Predicting Job Insecurity from Background Variables. *Economic and Industrial Democracy, 24*, 189-215
- Muller, P. (2002). *Tomorrow is a different ball game: Visions of the future*. Pretoria: LAPA Publishers.
- Pretorius, M., & Rothmann, S. (2001). Die verband tussen koherensiesin, lokus van beheer, seldeeltreffendheid en werkstevredenheid. *Journal of Industrial Psychology, 27*(1), 25-31.
- Robbins, S. P. (2001). *Organizational behavior*. Englewood Cliffs, NJ: Prentice Hall.
- Rothmann, S., & Van Rensburg, P. (8-10 May 2001). *Suicide ideation in the South African Police Service*. Paper presented at the 10th European Congress on Work and Organization Psychology, Prague, Czech Republic.
- Roux, A. (2002). *Everyone's guide to the future of South Africa*. Cape Town: Zebra.
- SAS Institute. (2002). *The SAS system for Windows: Release 8.01*. Cary, NC: SAS Institute Inc.
- Sauer, D. F. (2003). *Psychological empowerment, leadership empowerment behaviour and job insecurity in a steel-manufacturing environment*. Unpublished Master's dissertation, P U for CHE, Vanderbijlpark.
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self mastery, and self esteem): Reevaluation of the Life orientation Test. *Journal of Personality and Social Psychology, 67*, 1063-1078.
- Scheier, M. F., Weintraub, J. K., & Carver, C. S. (1986). Coping with stress: Divergent strategies of optimists and pessimists. *Journal of Personality and Social Psychology, 51*, 1257-1264.
- Soehnlein, K. M. (1998). The relationship of job insecurity, career planning, and goal Orientation and the self-development of survivors in a downsizing corporation. *Humanities and Social Science, 59*, 5A, 1436.

- Shea, J. D., Burton, R., & Girgis, A. (1993). Negative affect, absorption and immunity. *Physiology and Behavior*, 53, 449-457.
- Smithson, J., & Lewis, S. (2000). Is job insecurity changing the psychological contract? *Personnel Review*, 29, 680-698.
- Spector, P. E. (1982). Behavior in organizations as a function of locus of control. *Psychological Bulletin*, 91, 428-497.
- Spector, P. E. (1988). Development of the work locus of control scale. *Journal of Occupational Psychology*, 61, 335-340.
- SPSS (2003). *SPSS 12.0 for windows*. Chicago, IL: SPSS Incorporated.
- Steyn, H. S. (1999). *Praktiese betekenisvolheid: Die gebruik van effekgroottes*. Wetenskaplike bydraes-Reeks B: Natuurwetenskappe Nr.117. Potchefstroom: PU vir CHO.
- Strümpfer, D. J. W. (1995). The origins of health and strength: From salutogenesis to fortigenesis. *South African Journal of Psychology*, 25, 81-89.
- Sverke, M., & Hellgren, J. (2002). The nature of job insecurity: Understanding employment uncertainty on the brink of a new millennium. *Applied Psychology*, 5, 23-42.
- Sverke, M., Hellgren, J., Näswall, K., Chirumbolo, A., De Witte, H., & Goslinga, S. (2001). *European unions in the wake of flexible production: Technical report on the data set used in a SALTSA Project report 2001:1* Stockholm: National Institute of Working Life and SALTSA.
- Sverke, M., Hellgren, J., Näswall, K., Chirumbolo, A., De Witte, H., & Goslinga, S. (2004). *Job insecurity and union membership: European unions in the wake of flexible production*. Brussels: P. I. E.-Peter Lang.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston, MA: Allyn & Bacon.
- Tipton, R. M., & Worthington, E. L. (1984). The measurement of generalized self-efficacy: A case study of construct validity. *Journal of Personality Assessment*, 48, 545-548.

- Van Vuuren, T. (1990). *Met ontslag bedreigd. Werknemers in onzekerheid over hun arbeidsplaats bij veranderingen in de organisatie* (Threatened with retrenchment. Job insecurity among workers during organisational change). Amsterdam: VU Uitgeverij.
- Van Vuuren, T., Klandermans, B., Jacobson, D., & Hartley, J. (1991). Employees' reaction to job insecurity. In J. Hartley, D. Jackson, B. Klandermans & T. Van Vuuren, *Job insecurity: Coping with jobs at risk*. (pp. 79-103). London: Sage.
- Wallulis, J. (1998). *The new insecurity: The end of the standard job and family*. New York: State University of New York.
- Warr, P. (1987). *Work, unemployment and mental health*. Oxford UK: Clarendon Press.

CHAPTER 2

ARTICLE 1

THE PSYCOMETRIC PROPERTIES OF THE FUTURE LITERACY QUESTIONNAIRE

A. S. Bothma
J. H. Buitendach

Research Unit for People, Policy & Performance, North-West University, Vaal Triangle Campus, South Africa,

ABSTRACT

The purpose of this research was to conceptualise the concept future literacy and to compile an instrument to measure this concept. Future literacy is defined as a multidimensional concept that encompasses employability and other related concepts, for example job mobility and career intelligence. A cross-sectional design with an availability sample ($n = 459$) was used. A questionnaire consisting of 18 items was compiled to measure future literacy. Factor analysis revealed two factors that measured future literacy. Factor one was named Positive Mindset Towards Future Possibilities and Factor two, Anticipating, Planning and Preparing for Future Changes. The reliability of the questionnaire was satisfactory. The Cronbach alpha for Factor one was 0,76 and 0,81 for the second Factor.

OPSOMMING

Die doel van hierdie navorsing was om die konstruk toekomstgeletterdheid te konseptualiseer, asook die ontwikkeling van 'n instrument om die konstruk te meet. Toekomstgeletterdheid word as 'n multi-dimensionele begrip gedefinieer wat konstrunkte soos indiensneembaarheid en ander verwante begrippe soos mobilitiet en loopbaan-inteligensie insluit. 'n Dwarssnee-ontwerp met 'n beskikbaarheidsteekproef ($n = 459$) is gebruik. 'n Vraelys, bestaande uit 18 items, is opgestel om toekomstgeletterdheid te meet. Faktoranalise het twee duidelike faktore uitgewys. Faktor een is genoem: Positiewe Ingesteldheid Jeens Toekomstige Moontlikhede en Faktor twee: Antisipering van, Beplanning van en Voorbereiding vir Toekomstige Veranderinge. Die vraelys het voldoende betroubaarheid getoon: Cronbach alfa-koëffisiente was 0,76 vir Faktor een en 0,81 vir Faktor twee.

The changing world of work and its implications such as large-scale workforce reductions, outcontracting, outsourcing, globalisation, the demand for better performance, competitiveness, mergers and acquisitions, and job loss is placing a high demand on workers to adapt to changing circumstances (Borg & Elizur, 1992; Cascio, 1995; Considine, 2001; Handy, 2001; Kinnunen, Mauno, Nätti & Happonen, 1999; Moses, 1998; Muller, 2002; Roux, 2002). The average lifespan of organisations are significantly shorter than in the past, resulting in constant reinventions, restructuring and repositioning of products and employees (Boöttger & Dippenaar, 2002; Handy, 2001). Organisations have a compulsive preoccupation with profits, productivity and the bottom-line whilst the emotional well-being of employees is considered far less important (Moses, 1998). Organisations are flat and employees may make several lateral moves during their careers as a result of less promotional positions (Moses, 1998).

In the changing world of work employees remain employed as long as they can make a contribution and their skills and knowledge are needed by the organisation (Fugate & Ashforth, 2003). Careers are without boundary and can include many positions with multiple organisations and industries (Fugate & Ashforth, 2003; Van Buren, 2003). Employees' loyalty lies with their professions and not with the organisation any more (Moses, 1998). To survive and adapt employees must engage in lifelong learning to ensure that their skills and capabilities are required by organisations (Fugate & Ashforth, 2003).

Moses (1998) refers to career "angst" and workplace depression as a modern epidemic because of the changing world of work. Muller (2002) feels that we are currently experiencing the end of work and the place of work, as we have known it for the past 300 years. Muller (2002) argues that we are experiencing a new industrial revolution that will bring about as drastic and ruthless changes as the Industrial Revolution three centuries ago.

With reference to adaptation in the changing world of work Mawer (1999) argues that employees are ill equipped to adapt in the changing world of work due to a lack of skills.

Mawer (1999) argues that basic skills required in the past were the three r's: reading, writing and (a)rithmetic. Due to the changing world of work the basic skills required of individuals have been greatly extended to include a variety of additional skills. Mawer (1999) refer to employability and notes that skills like analysing information, oral communication, problem solving, creative thinking, goal setting, interpersonal skills, negotiation, using technology, organisational effectiveness and leadership are essential in the changing world of work. Surveys in organisations reveal that the workforce is ill prepared in terms of the basic or fundamental skills described above. Worth (2003) found generally negative attitudes towards and avoidance of searching for jobs outside the traditional, permanent employment paradigm by young unemployed candidates. Negative attitudes and avoidance were also experienced towards lifelong learning and career flexibility as a prerogative to adapt in the workplace (Worth, 2003). The researcher argues that if workers are ill equipped to adapt in the changing world of work they need to become knowledgeable about the changing world of work and the requirements that are needed to adapt successfully.

It is the opinion of the researcher that the changing world of work will change the psychological contract forever. The permanent relationship between employer and employee that used to lead to retirement has changed to a temporary or contractual relationship (Handy, 2001). The old psychological contract has become obsolete and is replaced by a new uncertain and temporary contract (Van Buren, 2003). The result of the new psychological contract and its implications will therefore be discussed.

Robbins (2001) defines the psychological contract as an unwritten agreement that sets out what management expects of employees and vice versa. Smithson and Lewis (2000) state that the psychological contract between employee and employer incorporates beliefs, values, expectations and aspirations of employer and employee. Due to the changing world of work, workers experience a new social contract which is constantly being re-negotiated (Herriot, 1992). The traditional psychological contract implied job security, as well as various employee benefits as reward for loyalty and hard work (Smithson & Lewis, 2000), and a sense of mastery and control (Ashford, Lee & Bobko, 1989). The

new psychological contract portrays a lack of job insecurity and will therefore lead to increased job insecurity (Smithson & Lewis, 2000).

Future literacy defined

The researcher defines future literacy (based on the work done by Boëttger and Dippenaar (2002) and Moses (1998) as a future orientation in the sense that a person understands the changing world of work, its implications on work and personal life, as well as the ability to formulate strategies to adapt and thrive in the changing world of work. The concept of literacy is usually conceptualised in terms of specific skills for individuals like reading and writing, personal finance, computer literacy and supervisory skills, but is currently not linked to future literacy skills. No research was found on the concept of future literacy as portrayed in this study.

Characteristics of future literate individuals

For the purpose of this study future literate individuals can be described as individuals who are adaptable, have a positive attitude towards the future, anticipate future changes and prepare for it, possess higher levels of self-efficacy, have an internal locus of control and strive for financial independence (financial literacy). They practice life long learning, have a specific personal future vision, have short and long term goals which they actively pursue, prepare themselves for a broad area of competence and place their security in their own abilities and competencies rather than in institutions (Boëttger & Dippenaar, 2002; Fugate & Ashforth, 2003; Moses, 1998). Another concept that is related to future literacy according to the researcher is employability. The similarities that exist between future literacy and employability make it necessary to examine the similarities and differences between the two constructs.

There seems to be different definitions and understanding of the employability concept in the limited research articles that exist on this construct (Fugate & Ashforth, 2003).

Brown, Hesketh and Williams (2003, p. 111) define it as "the relative chances of obtaining and sustaining different kinds of employment". Brown et al. (2003) as well as McQuaid and Lindsay (2002) are of the opinion that employability cannot solely be determined by individual characteristics but that it varies according to economic conditions. Van Buren (2003) refers to Ghoshal, Moran and Barlett (1996) (as cited in Van Buren, 2003) who define employability as lack of the continuity of employment with one company but an obligation to enhance the skills and competencies of the employees to improve their option for employment at other employers. McQuaid and Lindsay (2002, p. 615) refer to the British employment policy to define employability as "an acknowledgement of the need of individuals to possess transferable skills in order to operate within an increasingly flexible labour market..."

Fugate and Ashforth (2003, p. 1) define employability as "... a multidimensional form of work-specific active adaptability that enables workers to identify and realize career opportunities". The construct also subsumes a host of person-centred constructs that help workers adapt to the many work related changes (Fugate & Ashforth, 2003). According to Fugate and Ashforth (2003) the pro-active personality as described by Frese and Fay (2001) (as cited in Fugate & Ashforth, 2003) demonstrates proactive behaviours that lead to career success. Employability subsumes the proactive personality. It encompasses a wider array of characteristics like cognitive, dispositional, market-interaction variables, it is explicitly contextualised in the work context and it integrates dispositional and situational elements of pro-activity (Fugate & Ashforth, 2003).

Employability focuses mainly on person-centred factors like career identity, personal adaptability and social and human capital (Fugate & Ashforth, 2003). Career identity represents the diverse and diffuse career expectations of individuals' in terms of "who am I" and "who do I want to be". Personal adaptability focuses on the willingness and ability to adapt behaviour in the work situation. Social and human capital refers to the investment made by individuals and organisations in anticipation of future returns in the work place (Fugate & Ashforth, 2003).

Fugate and Ashforth (2003, p. 5) summarise employability by concluding that it provides a more and complete and precise description of proactive adaptation at work. Fugate and Ashforth (2003) conclude that further research is needed to operationalise and test the theoretical proposition of the construct. Job mobility is often used in the same context as employability and it is therefore necessary to quickly revise the meaning of this construct.

Job mobility refers to movements inside (upward, downward or lateral) the organisation as well as external (resignation) movements. External movements are either voluntary (resignation) or involuntary (layoffs) (Kalleberg, 2001). Employability includes the concept of mobility because employable candidates are viewed as more mobile – they possess the skills and abilities to move from one organisation or position to another position. Career intelligence is another related and new concept used exclusively by Moses (1998). This concept exhibits important aspects of future literacy, employability and mobility. The concept will be discussed to acknowledge the similarities with future literacy and related constructs.

Career intelligence

Moses (1998) visualises the concept of career intelligence as the means to adjust to the changing world of work. The career intelligence construct is multidimensional and includes the essential elements of employability, future literacy and mobility. Moses (1998) names twelve new rules for life and career success as a means of career intelligence. The researcher concludes that career intelligence as portrayed by Moses (1998) includes aspects like marketability, lifelong learning and anticipation of future changes that are vital for adaptation in the changing world of work.

In the same way as people have done long term financial planning in preparation for retirement they will have to do future planning so as to survive in the new world economy. Muller's (2002) advice to survive in the future includes career planning, adaptability, lifelong learning, the fostering of relationships and communication skills.

Various constructs related to future literacy were discussed above. It is now necessary to examine whether future literacy forms part of the related constructs or whether it can be defined as a construct in its own right.

The researcher is of the opinion that future literacy as a concept includes employability. Future literacy is a broader concept when compared with employability. Employability is limited to career opportunities and career adaptability in the organisational context. Future Literacy is multidimensional and encompasses the formulation of strategies to adapt to the changing world of work inside and outside of the organisational context, as a means to adapt to survive, as well as the ability to survive during periods of unemployment. Future literacy is a new frame of mind related to career and life planning. It encompasses a new paradigm about the career that has changed from a permanent to temporary and contractual assignment with numerous employers over a life span. Future literacy includes pro-active survival life planning. It includes a balanced work and personal life, as well as financial literacy (and other characteristic as described in the characteristics of future literate individuals) as a means to survive the changing world of work. Future literacy puts an emphasis on placing security for survival in own abilities and personally creating opportunities (sometimes outside the organisational context) rather than having security in organisations. Future literate individuals constantly adapt to new and changing circumstances and actively practice lifelong learning

Employability refers to the capability to develop different abilities and proficiencies to ensure speedy employment in other organisations when employees lose their jobs. (Fugate & Ashforth, 2003). For the purpose of this study, future literacy is viewed as being *multidimensional and encompassing the concept of employability*.

The researcher concludes that one of the direct results of the changing world of work is *increased job insecurity and all its negative effects on the well-being of employees*. The changing world of work demands a new mindset about employment. As previously stated, future literacy is multidimensional and is a new mindset about career and life planning. If the changing world of work has such negative effects on employees and a new mindset about career and life planning is needed, then the concept of future literacy

seems to be very relevant in the changing world of work. To evaluate the role of future literacy as a means to help employees to adapt and continue to exist successfully, it was first necessary to conceptualise the construct and secondly to determine the measurement of the construct.

The relationship between future literacy and biographical variables were also investigated. Future literacy is a new concept and no research is available on the relationship of the construct and biographical variables.

This research was undertaken in a large financial institution in South Africa which has recently undergone a restructuring process. The organisation is planning to embark on a future literacy training programme for all their employees. The reason for the future literacy training programme is to prepare their employees for the future changes as the organisation is planning extensive changes for the future. The future literacy levels of their employees are for that reason an important indication of how they might experience future changes. The future literacy levels of their employees could also be used to determine how prepared they are for future changes as well as to establish possible interventions that might prepare employees for these changes.

The above discussion leads to the following hypotheses:

H₁: Future literacy as measured by the future literacy questionnaire is a multi-dimensional construct.

H₂: The future literacy questionnaire exhibits sufficient construct validity to be used as an instrument to measure the concept of future literacy.

H₃: Demographic groups such as work category age, race, gender and qualifications differ significantly in terms of their levels of future literacy.

METHOD

Research design

A cross-sectional design (Burns & Grove, 1993) was used for this study. Cross-sectional designs are appropriate where groups of subjects at various stages of development are studied simultaneously, whereas the survey technique of data collection gathers information from the target population by means of questionnaires (Burns & Grove, 1993).

Study population

An availability sample ($n = 459$) was used. Although the training programme was a national initiative of the financial institution, only employees in the Gauteng province (Pretoria and the Vaal Triangle) and employees in Port Elizabeth were required to complete the questionnaires. The areas mentioned (Pretoria, Vaal Triangle and Port Elizabeth) was where the researcher conducted future literate training. The future literacy questionnaires were distributed to all participants prior to the commencement of the training programme. The questionnaires were completed under controlled conditions in the presence of the researcher. The researcher explained the reasons for the research and motivated the group to complete the different questionnaires. Table 1 contains an exposition of the characteristics of the participants in terms of usable responses.

Table 1

Characteristics of the Participants

Item	Category	Frequency	Percentage
Gender	Male	231	51%
	Female	221	49%
Race	Black	80	18%
	White	352	82%
Age groups	24-35 years	128	28%
	36-45 years	172	38%
	46-56 years and older	153	34%
Qualifications	Grade 10-12	243	54%
	Diploma or Degree	209	46%
Work category	Management	52	12%
	Specialist	158	35%
	Administrative	237	53%
Region	Pretoria	270	59%
	Port Elizabeth	127	28%
	Vaal Triangle	62	14%

Males represent 51% and females 49%. With reference to qualifications, 54% of the participants had a grade 10-12 qualification and 46% had tertiary qualifications. The majority of the participants were white (82%), administrative workers (53%) and came from the Pretoria region (58,8%). In terms of age, 34% were 46-56 years and older, while 38% were 36-45 years old and 28% were between the ages of 24-35 years. All the respondents are employees of a financial institution in South Africa.

Measuring instrument

No specific measuring instrument could be found that measured future literacy or aspects of the construct. A questionnaire to measure future literacy, consisting of 18 items was compiled by the author. The individual items are based on attributes of future literacy as portrayed by Boëttger and Dippenaar (2002), Muller (2002) and Moses (1998). Typical

items related to the reality of the changing world of work as well as a positive attitude towards the future are: "Companies don't expect loyalty any more, only results" and "I feel positive about my abilities to handle future changes", "I anticipate future changes and prepare myself for it", "I have a plan in place if I should lose my job" and "I use every opportunity to learn new things."

Statistical analysis

The data analysis was carried out with the help of the SAS-program (SAS Institute, 2002) and the SPSS-program (SPSS, 2003).

Exploratory and confirmatory factor analyses were used to determine the factors of the Future Literacy Questionnaire. Factor analysis is a mathematical procedure to cluster items or groupings of items to determine to which grouping each item or groups of items belong (Kerlinger & Lee, 2000).

Cronbach alpha coefficients were used to determine the internal consistency of the future literacy questionnaire used. According to Nunnally and Bernstein (1994) the Cronbach alpha coefficients of a measuring instrument needs to be higher than 0,70 to be regarded as a reliable instrument.

Multivariate analysis of variance (MANOVA) was used to determine the significance of the difference between job insecurity and future literacy of the demographic groups, such as age, qualifications, gender, regions and work category. MANOVA tests whether mean differences among groups on a combination of dependent variables are likely to have occurred by chance (Tabachnick & Fidell, 2001). In MANOVA a new independent that maximises group differences is created from the set of dependent variables. One-way analysis is then performed on the newly created dependent variable. Wilk's Lambda was used to test the significance of the effect. Wilk's Lambda is a likelihood ratio statistic of the data under the assumption of equal population mean vectors for all groups against

likelihood under the assumption that the population mean vectors are identical to those of the sample mean vectors for the different groups. When a significant effect was discovered in MANOVA, ANOVA was used to discover which independent variables were affected. Because multiple ANOVAS were used, a Bonferroni type adjustment was made for type one error. The Tukey test was carried out to indicate which groups differed significantly when ANOVAS were calculated.

The following formula was used to determine the practical significances (d) when t-tests were used (Steyn, 1999):

$$d = (\text{Mean}_A - \text{Mean}_B) / \text{RMSE}$$

where

Mean_A = Mean of the first group

Mean_B = Mean of the second group

RMSE = Root Mean Square Error

A cut-off point of 0,50 (medium effect) (Cohen, 1988) was set for the practical significance of the differences between means.

RESULTS

The first step in determining the reliability of the Future Literacy Questionnaire was to do exploratory and confirmatory factor analyses. Two factors were extracted. The two factors explained 41% of the variance of Future Literacy. The Principal Components Matrix of the Future Literacy Questionnaire is presented in Table 2.

Table 2

Principal Components Matrix of the Future Literacy Questionnaire

No	Questions	Factor 1: Positive Mindset Towards Future Possibilities	Factor 2: Anticipating, Planning and Preparing for Future Changes
FQ1	Companies don't expect loyalty anymore, only results	0,04	-0,17
FQ2	I anticipate future changes and prepare myself for these changes	0,35	0,46
FQ3	I possess adequate competencies to survive the changing world of work	0,25	0,48
FQ4	I have a written plan for my life	0,12	0,69
FQ5	There are a lot of opportunities in the new South Africa	0,45	0,41
FQ6	I do long term financial planning	0,19	0,60
FQ7	The only job security in the world is to be more talented tomorrow than you are today	0,55	0,17
FQ8	The main difference between winners and losers is attitude	0,77	0,00
FQ9	I feel positive about my abilities to handle future changes	0,56	0,44
FQ10	Losers can only blame themselves for not making the best of life's opportunities	0,66	0,23
FQ11	I have a plan in place if I should lose my job	0,19	0,57
FQ12	Anybody can become a winner with the right attitude	0,78	0,15
FQ13	I have a self development plan	0,29	0,73
FQ14	I have long term career goals	0,31	0,74
FQ15	I use every opportunity to learn new things	0,29	0,56
FQ16	I believe that my work group have the potential to be a winning team	0,43	0,22
FQ17	Employees remain employed as long as they can make a contribution and their skills and knowledge are needed by the organisation	0,49	0,27
FQ18	Every person has the potential to be a winner	0,70	0,12

The factor loadings in Table 2 presented two factors. Most items loaded sufficiently with the exception of item 1. After analysing the items the two factors were named according to their content. Factor 1 was named Positive Mindset Towards Future Possibilities because most items in this factor presented a positive outlook towards the future. Factor 2 was named: Anticipating, Planning and Preparing for Future Changes. Most items in Factor 2 focused on the anticipating, planning and preparing for future changes. Combining the two factors resulted in a total score for future literacy. The skewness indicated a negatively skew distribution. The percentage of variance for the two factors was 41%. The latter implies that 41% of the variance in Future Literacy is predicted by the two factors. Construct equivalence was not done on the Future Literacy Questionnaire

due to the small percentage of Black participants (18%). Descriptive statistics for the Future Literacy Questionnaire is provided in Table 3.

Table 3

Descriptive Statistics: Cronbach Alpha, Standard Deviation, Means and Item-Inter Correlations for the Future Literacy Questionnaire

Factor	Mean	SD	r(mean)	α
Factor 1: Positive Mindset Towards Future Possibilities (PM)	31,75	4,04	0,27	0,76
Factor 2: Anticipating, Planning and Preparing for Future Changes (AP)	23,32	3,61	0,36	0,81

Cronbach alpha for Factor 1 (Positive Mindset Towards Future Possibilities) was 0,76, while Factor 2 (Anticipating, Planning and Preparing for Future Changes) was 0,81 as reflected in Table 5. These adheres to the 0,70 cut-off point as set by Nunnally and Bernstein (1994). The mean inter-item correlations for the two factors of the Future Literacy Questionnaire (FLQ) is in line with the guidelines of $> 0,15$ and $< 0,50$ (Clark & Watson, 1995). The inter-item correlations confirmed a two factor questionnaire.

As no norms are available for the future literacy questionnaire, scores were calculated by the researcher by allocating marks to the responses on the different questions. One mark was allocated for each response on strongly disagree, 2 marks for each response on disagree, 3 marks for each response on agree and 4 marks for each response on strongly agree. Although this study found the Future Literacy Questionnaire to be reliable more research focussing on the reliability and validity of the Questionnaire in a variety of organisational settings in South Africa is required. Norms need to be developed for a variety of occupational groups, professions, organisations and industries. Categories to determine low and high scores are presented in Table 4.

Table 4

Interpretation of the Future Literacy Scores

Interpretation	Scores
Low	18 – 35
Below average	36 – 44
Average	45 – 50
Above average	51 – 61
High	62 – 72

In Table 5 the Future Literacy Levels of the participants for Factor 1: Positive Mindset Towards Future Possibilities (PM) will be discussed. Total scores (n) on the different categories in Table 5 might vary because participants did not always complete all the different categories on the biographical questionnaire.

Table 5

Future Literacy Levels of the Participants for Factor 1: Positive Mindset Towards Future Possibilities (PM)

Demographic variables	Below average		Average		Above average		High	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Gender								
Male	6	2,61%	66	28,70%	116	50,43%	42	18,26%
Female	10	4,52%	109	49,32%	80	36,20%	22	9,95%
Race								
Black	1	1,25%	15	18,75%	43	53,75%	21	26,25%
White	3	3,69%	155	44,03%	143	40,63%	41	11,65%
Age groups								
24-35 years	4	3,13%	47	36,72%	62	48,44%	15	11,72%
36-45 years	7	4,09%	72	42,11%	65	38,01%	27	15,79%
46-56 years and older	5	3,27%	56	36,60%	70	45,75%	22	14,38%
Qualifications								
Grade 10-12	10	4,13%	109	45,04%	98	40,50%	25	10,33%
Diploma or Degree	6	2,87%	66	31,58%	98	46,89%	39	18,66%
Work category								
Management	2	3,85%	18	34,62%	22	42,31%	10	19,23%
Specialist	4	2,55%	48	30,57%	79	50,32%	26	16,56%
Administrative	10	4,22%	107	45,15%	95	40,08%	25	10,55%

The future literacy levels of the participants are represented in Table 5. Most respondents fell within the average and above average category. There were no responses in the low category. Males had higher scores (68,70% scored above average to high) than females (46,15% scored above average to high). In terms of race, Black participants scored higher (80% scored above average to high) than White participants (52% scored above average to high). With reference to age groups, qualifications and work category the difference of the future literacy levels was not so large when compared to gender and race. The future literacy levels for Factor 2 will be discussed in Table 6. Total scores (n) on the different categories in Table 6 might vary because participants did not always complete all the different categories on the biographical questionnaire.

Table 6

Future Literacy Levels of the Participants for Factor 2: Anticipating, Planning and Preparing for Future Changes (AP)

Demographic variables	Low		Below average		Average		Above average		High	
	N	%	N	%	N	%	N	%	N	%
Gender										
Male	1	0,43%	40	17,39%	97	42,17%	62	26,96%	30	13,04%
Female	5	2,26%	58	26,24%	111	50,23%	32	14,48%	15	6,79%
Race										
Black	1	1,25%	8	10,00%	27	33,75%	33	41,25%	11	13,75%
White	4	1,14%	88	25,00%	171	48,58%	56	15,91%	33	9,38%
Age groups										
24-35 years	1	0,78%	32	25,00%	45	35,16%	37	28,91%	13	10,16%
36-45 years	2	1,17%	39	22,81%	82	47,95%	31	18,13%	17	9,94%
46-56 years and older	3	1,96%	27	17,65%	82	53,59%	26	16,99%	15	9,80%
Qualifications										
Grade 10-12	3	1,24%	52	21,49%	129	53,31%	41	16,94%	17	7,02%
Diploma or Degree	3	1,44%	46	22,01%	79	37,80%	53	25,36%	28	13,40%
Work category										
Management	1	1,92%	8	15,38%	30	57,69%	6	11,54%	7	13,46%
Specialist	1	0,64%	27	17,20%	70	44,59%	38	24,20%	21	13,38%
Administrative	3	1,27%	63	26,58%	106	44,73%	49	20,68%	16	6,75%

With reference to the scores of the participants on Factor 2 the same pattern emerged as with the scores on Factor 1. Males scored higher (40% scored above average to high) than females (21.27% scored above average to high). In terms of race, black participants scored higher (55% scored above average to high) than white participants (25.28% % scored above average to high). With reference to age groups, qualifications and work category the difference of the future literacy levels was not so large when compared to gender and race.

When the scores on Factor 1 and Factor 2 are compared certain difference in terms of the demographic variables of the participants is evident. Almost 15-25% of the participants scored below average on Anticipating, Planning and Preparing for Future Changes (AP) (Factor 2) in comparison with less than 5% that scored below average on Positive Mindset Towards Future Possibilities (PM) (Factor 1) in Table 5. The impression is created that being positive about the future (Factor 1) is easier than the actual anticipating, planning and preparing for future changes. Analysing the questions in Factor 2 revealed that Factor 2 relates to the practical implementation of the future literacy principals. Typical questions in Factor two are: "I have a written plan for my life" and "I do long term financial planning" and "I have a self development plan". This seems to be more difficult to implement when compared with Factor 1. Typical questions in Factor one are: "There are a lot of opportunities in the new South Africa" and "I feel positive about my abilities to handle future changes".

Differences between groups

MANOVA and ANOVA analysis was used to determine the relationship between future literacy and demographic groups such as work category and age. Work categories indicate the respondents position in the company e.g. management, specialist or administrative personnel. Demographic groups were analysed for significance using Wilk's Lambda statistics. In Table 7 the results of these comparisons are reported.

Table 7

MANOVA of Future Literacy and Work Category

Variable	Value	F	df	DENDF	p
Work category	0,88	7,50	8	880	0,000*
Age	0,93	1,17	8	105	0,325

* Statistically significant difference: $p < 0,01$

Wilk's Lambda values in Table 7 indicated statistically significant differences between future literacy and work category. The relationship between future literacy and work category were further analysed to determine the practical significance of the differences using ANOVA, followed by Tukey HSD tests. The differences between future literacy Factor 1 of the different work categories are presented in Table 8.

Table 8

Future Literacy (Factor 1) of Participants in Different Work Categories.

Factor 1: Positive Mindset Towards Future Possibilities (PM)	Management	Specialist	Fist Line Management	General Workers	Cohen's d
Mean	3,23	3,24	3,16	2,98	
Management		0,99	0,89	0,00+	0,66*
Specialist			0,66	0,00+	0,70*
Fist Line Management				0,08	

+ Statistically significant difference $p < 0,01$

* Practically significant difference, medium effect; a and b ($d \geq 0,50$)

Effect-sizes (Cohen, 1988; Steyn, 1999) were used in addition to statistical significance to determine the practical significance of results. Effect-sizes indicate whether obtained

results are important (while statistical significance often shows results, these are sometimes of little practical significance). Table 8 indicated practically significant differences of a medium effect between the work categories of management, specialist, and general workers. In terms of Factor 1 (PM) specialists exhibited higher levels of future literacy. The differences between future literacy Factor 2 of the different work categories are presented in Table 8.

Table 9

Future Literacy (Factor 2) of Participants in Different Work Categories.

Factor 2: Anticipating, Planning and Prepare for Future Changes (AP)	Management	Specialist	Fist Line Management	General Workers	Cohen's d
Mean	2,96	2,99	2,84	2,74	
Management		0,99	0,73	0,04+	0,50*
Specialist			0,36	0,00+	0,57*
Fist Line Management				0,62	

+ Statistically significant difference $p < 0,01$

* Practically significant difference, medium effect; a and b ($d \geq 0,50$)

Table 9 indicated practically significant differences of a medium effect between the work categories of management and specialist. Specialists seemed to exhibit high levels of future literacy on Factor 2 (AP). A possible explanation for the fact that specialists are more future literate is that this group are similar to entrepreneurs (they generate their own income) in the financial institution where the research was undertaken.

T-tests were used to verify differences between demographic variables for example race, gender and qualifications. In Table 10 the differences of the participants regarding, race, gender and qualifications in relation to future literacy are presented.

Table 10

Results of t-tests Regarding Significant Differences Between the Demographical Variables of the Participants in Relation to Future Literacy.

Race	Black		White		Values		
	Mean	Std Dev	Mean	Std Dev	t-Value	p-Value	Cohen's d
Factor 1: Future Literacy (PM)	33,64	3,73	31,24	3,96	4,93	0,000+	0,61*
Factor 2: Future Literacy (AP)	24,83	3,63	22,80	3,59	4,54	0,000+	0,56*
Gender	Males		Female		Values		
	Mean	Std Dev	Mean	Std Dev	t-Value	p-Value	Cohen's d
Factor 1: Future Literacy (PM)	32,57	3,88	30,76	4,01	4,84	0,000+	0,45
Factor 2: Future Literacy (AP)	23,87	3,68	22,44	3,53	4,19	0,000+	0,39
Qualifications	Grade 10-12		Graduates		Values		
	Mean	Std Dev	Mean	Std Dev	t-Value	p-Value	Cohen's d
Factor 1: Future Literacy (PM)	31,04	3,85	32,43	4,14	-3,70	0,000+	0,34
Factor 2: Future Literacy (AP)	22,71	3,32	23,71	3,99	-2,91	0,003+	0,25

+ All the differences are statistically significant $p < 0,01$. The following cut-off points are recognised regarding practically significant differences:

* $\geq 0,50$ medium effect

** $\geq 0,80$ large effect

As indicated in Table 10 practically significant differences of a medium effect (0,61) existed between Black and White participants on Factor 1 and Factor 2 of the Future Literacy Questionnaire. This indicates that Black participants have a positive mindset towards future possibilities (Factor 1 PM) and are actively busy with the anticipating, planning and preparing for future changes (Factor 2 AP).

A possible explanation for these differences could be that there are now more opportunities for Black participants. Since the implementation of the Employment Equity Act 55 of 1998 (Republic of South Africa, 1998), organisations must ensure equal opportunities for employees employed as well as new appointments. It could therefore be expected that different race groups feel different about the future and future prospects. Black participants might be more positive than White participants because of perceived possibilities resulting from employment equity and scored higher on future literacy. Employment equity allows Black participants the possibility to anticipate, plan and prepare for future possibilities.

According to Table 10 males scored significantly higher than females when compared on future literacy. The differences are not practically significant but very near to the cut off point (0,47) of 0,50. The results indicate that men are more positive about the future possibilities (Factor 1 PM) and that they are also active in their preparation to anticipate, plan and prepare for future (Factor 2 AP).

Lastly graduates scored significantly higher than candidates with Grade 10-12 on Factor 1 and 2 of the Future Literacy Questionnaire. These results could indicate that graduates invested more in their development that could result in higher levels of future literacy. The differences were statistically significant (0,32) but not practically significant (Cohen's $d \geq 0,50$).

DISCUSSION

With the changing world of work as background the purpose of this research was firstly to conceptualise future literacy and secondly to compile an instrument to measure the concept. The conceptualisation of future literacy was complicated by the lack of previous research on the concept. For the purpose of this study future literacy is defined as a multidimensional concept; it is not limited to career opportunities and career adaptability but includes the formulation of strategies to adapt to the changing world of work inside and outside of the organisational context. It also includes the ability to cope during

periods of unemployment. Future literacy is a new frame of mind about career and life planning. It encompasses a new paradigm about the career that has changed from a permanent to temporary and contractual assignments with numerous employers over a life span. The only concept in the literature that relates to future literacy is employability. Fugate and Ashforth (2003, p. 1) define employability as "... a multidimensional form of work specific active adaptability that enables workers to identify and realize career opportunities".

The researcher is of the opinion that understanding, embracing and practicing the future literacy principles might lead to less job insecurity. If future literacy is important as a way to adapt and survive in the changing world of work, the conceptualisation and measurement of the construct is necessary. One of the solutions for adapting to the changing world of work is future literacy training. The purpose of future literacy training is to create a new mindset about the changing world of work. The changing world of work with all its implications including large-scale work force reductions, out contracting, out sourcing, the demand for better performance, competitiveness, mergers and acquisitions, and job loss is placing a high demand on workers to adapt to changing circumstances. The researcher feels that the changing world of work demands a new mindset when it comes to job security. It seems that the old social contract that guaranteed security is obsolete and is replaced by a new business reality that does not guarantee job security. The changing world of work portrays the reality that workers are only employed as long as they are needed by the organisation and the organisation can utilise their skills. This has significant implications for workers to change their traditional mindset from lifelong employment to a new form of employment that is insecure, temporary and contractual (Ashford et al., 1989; Considine, 2000; Cooper, 1999; Kinnunen et al., 1999; Petzall, Parker & Stoeberl, 2000; Wolter, 1998).

The researcher adopts the viewpoint that the natural reaction of workers to the changing world of work is to seek secure employment instead of adapting to changing circumstances. One solution to adapting to the changing world of work is to enhance employability. This refers to various qualities, competencies and abilities that might help

employees to find new employment. Muller (2002) stated that workers need to do proactive future planning to survive the changing world of work. The changing world of work which gives rise to increasing job insecurity stimulates research that might lead to ways to help workers adapt and continue to exist in this changing world of work.

No instrument that measures future literacy or related concepts could be found in the literature. An instrument consisting of 18 items was developed to measure the construct. The first step in determining the reliability of the Future Literacy Questionnaire was to do exploratory and confirmatory factor analyses. Two factors were extracted. The two factors explained 41% of the variance of Future Literacy. After analysing the items the two factors were named according to their content. Factor 1 was named Positive Mindset Towards Future Possibilities because most items in this factor presented a positive outlook towards the future. Factor 2 was named: Anticipating, Planning and Preparing for Future Changes. Most items in Factor 2 focused on the anticipating, planning and preparing for future changes. Combining the two factors resulted in a total score for future literacy.

The Cronbach alpha for the Future Literacy Questionnaire was acceptable. Cronbach alpha for Factor 1 (Positive Mindset Towards Future Possibilities) was 0,76, while Factor 2 (Anticipating, Planning and Preparing for Future Changes) was 0,81. These adhere to the 0,70 cut-off point as set by Nunnally and Bernstein (1994). Hypothesis two, namely the Future Literacy Questionnaire would exhibit sufficient construct validity to be used as an instrument to measure the construct could therefore be accepted.

Future literate employees are positive about the future because their security is placed in their own abilities rather than organisations. They actively anticipate, plan and prepare for future changes. They are adaptable, practice life long learning, strive for financial independence, have a specific personal future vision, have short and long term goals which they actively pursue and prepare themselves for a broad area of competence (Boëttger & Dippenaar, 2002).

With reference to the future literacy levels of the participants on Factor one, males scored higher than females. Black participants also scored higher than White participants. When the participants were compared in terms of age groups, qualifications and work category the difference of the future literacy levels was not so large when compared to gender and race. Scores on the future literacy levels of the participants on Factor 2 revealed the same tendency as the scores on Factor one.

The participants scored higher on Factor 1 (Positive Mindset Towards Future Possibilities) than Factor 2 (Anticipating, Planning and Preparing for Future Changes). Factor 2 focused on the practical implementation of the future literacy principles, indicating the difficulty of the practical implementation of the future literacy principles in comparison with a positive mindset. When the scores of the participants on Factor two were analysed the same pattern was visible as in Factor 1. Males as well as Black participants scored higher in comparison with females and White participants. In terms of age groups, qualifications and work category the difference of the future literacy levels on Factor 2 was not so large when compared to gender and race

In terms of biographical variables, specialists seem to experienced high levels of future literacy on Factor 1 and Factor 2 when compared with other work categories. An explanation for this difference is that specialists are similar to entrepreneurs (they generate their own income) in the financial institution where the research was undertaken.

Black participants scored significantly higher on future literacy when compared to White participants. The differences between the races could be explained in the light of the employment equity policy in South Africa. No research concerning future literacy and race is currently available. A possible explanation for the differences between the races is that Black participants might be more positive than White participants because of perceived possibilities resulting from employment equity. Employment equity allows Black participants the possibility to anticipate, plan and prepare for future possibilities.

Whites on the other hand might be more negative and uncertain about future possibilities as well as their employability resulting in lower future literacy.

With reference to gender significant differences were found (the differences between males and females are not practically significant). Males scored significantly higher than females when compared on the scale of future literacy. Males in this study have higher levels of future literacy. It could also be mentioned that current company culture at the specific financial institution is dominated by white males and that females occupy mostly clerical positions. The latter would have a definite influence on the level of future literacy.

In terms of qualifications Graduates scored significantly higher than candidates with Grade 10-12. The differences were statistically significant but not of practical significant (Cohen's $d > 0,50$). Hypothesis 3 that stated that demographic groups such as work category age, race, gender and qualifications differ in terms of their levels of future literacy could be partially accepted as the only practically significant differences existed between work categories and race groups.

It can be concluded that the concept of future literacy is a very important attribute in the changing world of work. Only employees who are future literate and able to anticipate, plan and prepare for future changes will be able to adapt and thrive in the changing world of work. The successful measurement of the construct of future literacy is of great importance. This research is only the first step in coming to a fuller understanding of the important role and implications of future literacy in the changing world of work.

The use of a cross-sectional design is a limitation of this research. Future literacy was only measured once without a follow up. A longitudinal study to measure the effect of future literacy over time, would contribute to a better understanding of the construct. Another limitation of this study is the fact that it relied exclusively on self-report measures.

RECOMMENDATIONS

The present study strived to conceptualise the concept of future literacy, as well as to compile a measuring instrument to measure the construct. Future literacy is a new construct and no research was previously done on this concept. Future literacy is relevant due to the changing nature of work and will become more relevant, as the changing world of work affects employees. The following recommendations are made for future research.

The conceptualisation of future literacy. Future literacy has certain common characteristics with related constructs like employability and further research is needed for conceptual clarity.

The measurement of future literacy. The factor analysis of future literacy revealed two factors. It was necessary to adapt the model and after specific corrections were made, a good fit was obtained for the two factor model. Thorough research is needed to ensure that all possible aspects of the construct are included in the measurement thereof.

The success of future literacy training. The success of future literacy training on changing the mindset of employees needs to be determined. The long-term success of future literacy training needs to be studied over longer periods of time to determine the longitudinal effect of such training. Are future literate individuals better adapted in the workplace, happier workers, more productive and are they performing better? These are all questions that could be investigated by future research.

The role and responsibility of the individual versus that of the organisation in becoming future literate is an important aspect in the changing world of work. The negative effect of job insecurity on the organisation and the effect on the psychological well-being of workers make research about the construct essential. In the organisational context, it is important that the organisations become aware of future literacy as a way of reducing job insecurity, as well as their role in providing future literacy training.

REFERENCES

- Arbuckle, J. L. (1997). *Amos 4.0*. Chicago, IL: Smallwaters.
- Ashford, S. J., Lee C., & Bobko, P. (1989). Content, causes and consequences of job insecurity: A theory-based measure and substantive test. *Academy of Management Journal*, 32, 803-829.
- Boöttger, J., & Dippenaar, H. (2002). *Inspirational leadership through visual knowledge management*. Johannesburg: Jacana Publishers.
- Brown, P. Hesketh, A., & Williams, S. (2003). Employability in a knowledge-driven economy. *Journal of Education and Work*, 16, 107-126.
- Borg, I., & Elizur, D. (1992). Job insecurity: Correlates moderators and measurement. *International Journal of Manpower*, 13, 13-26.
- Burns, N., & Grove, S. K. (1993). *The practice of nursing research; Conduct, critique, and utilization* (2nd ed.). Philadelphia, PA: W. B. Saunders.
- Cascio, W. F. (1995). Whither industrial and organisational psychology in a changing world of work. *American Psychologist*, 50, 928-939.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7, 309-319.
- Considine, J. (2001). The changing nature of work. *Business Date*, 9, 1-5.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Orlando, FLA: Academic Press.
- Cooper, C. L. (1999). Can we live with the changing nature of work? *Journal of Managerial Psychology*, 14, 569-572.
- Fugate, M., & Ashforth, B. E. (2003). Employability: The construct, its dimensions, and applications. *Academy of Management Proceedings*: j1-j6.
- Handy, C. (2001). *The elephant and the flea: Looking backwards to the future*. London: Random House.
- Herriot, P. (1992). *The career management challenge: Balancing individual and organisational needs*. London: Sage.
- Hu, L.-T., & Bentler, P. M. (1999). Cut-off criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modelling: A Multidisciplinary Journal*, 6, 1-55.

- Kalleberg, A. L. (2001). Satisfied movers, committed stayers. The impact of job mobility on work attitudes in Norway. *Work and Occupations, 28*, 183-209.
- Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioral research*. Orlando FLA: Harcourt Publishers.
- Kinnunen, U., Mauno, S., Nätti, J., & Happonen, M. (1999). Perceived job insecurity: A longitudinal study among Finnish employees. *European Journal of Work and Organisational Psychology, 8*, 243-260.
- Mawer, G. (1999). *Language and literacy in workplace education: Learning at work*. New York: Addison Wesley Longman Inc.
- McQuaid, R. W., & Lindsay, C. (2002). The employability gap: Long-term unemployment and barriers to work in buoyant labour markets. *Environment and Planning C: Government and Policy, 20*, 613-628.
- Moses, B. (1998). *Career intelligence*. San Francisco: Berrett-Koehler Publishers.
- Muller, P. (2002). *Tomorrow is a different ball game: Visions of the future*. Pretoria: LAPA Publishers.
- Nunnally, J. C., & Bernstein, J. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Petzall, B. J., Parker, G. E., & Stoeberl, P. A. (2000). Another side to downsizing: Survivors' behavior and self-affirmation. *Journal of Business and Psychology, 14*, 593-603.
- Republic of South Africa (1998). Employment Equity Act 55 of 1998. *Government Gazette, 400*, No. 19370. Pretoria: Government Printer.
- Robbins, S.P. (2001). *Organizational behavior*. Englewood Cliffs, NJ: Prentice Hall.
- Roux, A. (2002). *Everyone's guide to the future of South Africa*. Cape Town: Zebra.
- SAS Institute. (2002). *The SAS system for Windows: Release 8.01*. Cary, NC: SAS Institute Inc.
- Smithson, J., & Lewis, S. (2000). Is job insecurity changing the psychological contract? *Personnel Review, 29*, 680-702.
- SPSS (2003). *SPSS 12.0 for windows*. Chicago, IL: SPSS Incorporated.

- Steyn, H. S. (1999). *Praktiese betekenisvolheid: Die gebruik van effekgroottes*. Wetenskaplike bydraes-Reeks B: Natuurwetenskappe Nr.117. Potchefstroom: PU vir CHO.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston, MA: Allyn & Bacon.
- Van Buren, H. J. (2003). Boundaryless careers and employability obligations. *Business Ethics Quarterly*, 13, 131-149.
- Wolter, S. C. (1998). The cost of job insecurity - Results from Switzerland. *International Journal of Manpower*, 119, 396-409.
- Worth, S. (2003). Adaptability and self-management: A new ethic of employability for the Young unemployed? *Journal of Social Policies*, 32, 607-621.

CHAPTER 3

ARTICLE 2

THE RELATIONSHIP BETWEEN JOB INSECURITY, SELF-EFFICACY, WORK LOCUS OF CONTROL AND DISPOSITIONAL OPTIMISM

A. S. Bothma
J. H. Buitendach

*Research Unit for People, Policy & Performance, North-West University, Vaal Triangle
Campus, South Africa.*

ABSTRACT

The purpose of this research was to investigate the relationship between job insecurity as dependent variable and self-efficacy, work locus of control and dispositional optimism as independent variables. A cross-sectional design with an availability sample ($n = 459$) in a financial institution was used. Four questionnaires, namely the Job Insecurity Questionnaire (JIQ), The General Perceived Self-efficacy Scale (GPSES), Work Locus of Control Scale (WLCS), The Life Orientation Test-Revised (LOT-R) and a biographical questionnaire, were administered. Results indicated practically significant correlations between job insecurity, self-efficacy, work locus of control and dispositional optimism. Self-efficacy, work locus of control and dispositional optimism correlated negatively with job insecurity, indicating that job insecurity increases as self-efficacy, work locus of control and dispositional optimism decreases. Self-efficacy, work locus of control and dispositional optimism held predictive value with regard to job insecurity.

OPSOMMING

Die doel van hierdie navorsing was om die verwantskap tussen werksonsekerheid as afhanklike veranderlike en selfdoeltreffendheid, werk lokus van beheer en disposisionele optimisme as onafhanklike veranderlikes te ondersoek. Die ondersoekgroep het bestaan uit 'n beskikbaarheidsteekproef ($n = 459$) werknemers van 'n finansiële instelling. 'n Dwarsnee opname-ontwerp is gebruik. Die ondersoekgroep het die volgende vraelyste voltooi: Werksonsekerheid (JIQ), Selfdoeltreffendheid (GPSES), Werk Lokus van Beheer (WLCS), Disposisionele Optimisme (LOT-R) asook 'n biografiese vraelys. Prakties betekenisvolle korrelasies is verkry tussen werksonsekerheid, selfdoeltreffendheid, werk lokus van beheer en disposisionele optimisme. Selfdoeltreffendheid, werk lokus van beheer en disposisionele optimisme het negatief met werksonsekerheid gekorreleer wat aandui dat werksonsekerheid toeneem soos wat selfdoeltreffendheid, werk lokus van beheer en disposisionele optimisme afneem. Selfdoeltreffendheid, werk lokus van beheer en disposisionele optimisme het werksonsekerheid voorspel.

Internationally the changing world of work and its implications, as well as the demand on organisations for better performance and competitiveness is taking its toll on the emotional well-being of employees (De Witte, 1999; Moses, 1998). The result is large-scale workforce reductions, outsourcing, job insecurity and unemployment. Moses (1998) argues that the once valued social contract that guaranteed job security has been replaced by a reality that employees remain employed as long as they can make a contribution and their skills and knowledge are needed by the organisation. According to Moses (1998) the work rules have changed so much that workers have lost their sense of protection. In the past organisations provided a sense of security, belonging to something bigger than themselves, identification with people that are like-minded and working for a common purpose that installs pride and meaningfulness (Moses, 1998). The negative effect of job insecurity on the well-being of job incumbents, as well as the effect on organisational effectiveness necessitates research about job insecurity and the factors related to job insecurity (De Witte, 1999).

Job insecurity is conceptualised in the literature as a multidimensional concept, a stressor or a global perspective (Kinnunen, Mauno, Nätti & Happonen, 1999; Sverke, Hellgren, Näswall, Chirumbolo, De Witte & Goslinga, 2004). The multidimensional definition which includes the threat of job loss as well as the threat of losing important dimensions of the job will be discussed next.

Van Vuuren (1990) gives a broad definition of job insecurity that includes three major elements. It is a subjective perception that varies from person to person; it implies uncertainty about the long-term future and the continuance of a job. Kinnunen et al. (1999) argue that job insecurity is a function of objective circumstances and personal attributes and therefore a multidimensional definition is appropriate. According to Kinnunen et al. (1999) job insecurity is not only limited to uncertain environments or organisations, but may appear in seemingly secure environments. Furthermore the population that experiences job insecurity is usually larger than the workers who actually lose their jobs. Kinnunen et al. (1999) conclude that job insecurity is influenced by organisational conditions such as change and communication, individual and positional

characteristics like age, gender, socio-economic status and personality characteristics, which include locus of control, optimism-pessimism and sense of coherence. Greenhalgh and Rosenblatt (1984) perceive job insecurity as multidimensional consisting of five components; including the quantity of features that are threatened, the relative importance of the job features that are threatened, the perceived threat of various changes that might impact negatively, importance of the combined effect of the threats named above and powerlessness. Sverke et al. (2004) state that job insecurity is also a subjective perception and is perceived in different ways by people; depending on their specific circumstances.

With reference to job insecurity as a stressor De Witte (1999) and Burchell (1999) state that job insecurity has a significant negative influence on the emotional well-being of the individual. It reduces the level of job satisfaction and leads to psychosomatic complaints. Job insecurity has generally been considered a job stressor (Mauno & Kinnunen, 1999).

Sverke et al. (2004) explain job insecurity as stressor by referring to the stress process of Katz and Kahn (1978). The stress process of Katz and Kahn (1978) describes the situation where the individual creates a subjective and psychological conception of the objective reality. The individual's interpretation of the objective reality is based on his subjective interpretation of the stress stimulus. The stress process is also influenced by the individual's characteristics as well the environment. The last stage of the stress process result in the development of mental and physical health complains. A stressor arise when an individual experiences a signal of a threat in his environment. The perception of losing one's job is such a threat (Sverke et al., 2004).

Prolonged job insecurity is more detrimental and acts as a chronic stressor which negative effects will become more potent as time goes by (Dekker & Schaufeli, 1995). The harmful impact of job insecurity is clearly shown when two groups of people were compared in terms of knowledge of redundancy and the possibility of becoming redundant in the future. The group who knew that redundancy was a reality, experienced improved psychological well-being in comparison with the group who was still uncertain.

The unpredictability and the uncontrollability of job insecurity thus has a negative impact on the psychological well-being of people (De Witte, 1999).

Moses (1998) refers to workplace depression as a modern epidemic. The opposite of depression is excitement, anticipation, and joy, which is lacking in today's organisations. Greenhalgh and Sutton (1991) found that job insecurity inhibits change readiness because of fear of the future. It also holds negative consequences for industrial relations because of mistrust, blame, and general dissatisfaction (Greenhalgh & Sutton, 1991). Job insecurity weakens the quality of human relations and perceived efficacy in the organisation (Kinnunen et al., 1999).

In terms of the global perspective of job insecurity De Witte (2000) states that job insecurity consists of cognitive and affective job insecurity. Cognitive job insecurity refers to the possibility of becoming unemployed while affective job insecurity refers to the emotional experience of the possible threatening situation. A typical question about cognitive job insecurity is: "I am worried about keeping my job". An example of affective job insecurity is "I feel insecure about the future of my job". For the purpose of this study job insecurity is defined as uncertainty about the continuance of a person's present job as well the potential of losing one's job (De Witte, 1999). The global measure of job insecurity as constructed by De Witte (2000) was used in this study.

With reference to biographical variables and job insecurity the most frequent biographical variables investigated in research are age and gender (Näswall & De Witte 2003). Mohr (2000) found a strong positive correlation between the level of job insecurity and age indicating that older employees experience more job insecurity than younger employees. Hartley, Jacobson, Klandermans and Van Vuuren (1991) confirmed the results of Mohr (2000). The fact that older employees experience more job insecurity when compared with younger employees was also confirmed by the research of Heymans (2000) and Sauer (2003). In contrast with these results Buitendach, Oosthuyzen and van Wyk (2005) found that older employees experience lower levels of job insecurity.

Kinnunen et al. (1999) found higher levels of job insecurity among men. A study of Sverke, Hellgren, Näswall, Chirumbolo, De Witte, and Goslinga (2001) demonstrates that men show a stronger relation with the stress of insecure employment when compared to women. The latter might relate to the traditional role of men as the breadwinners. Since men are traditionally perceived as the providers for the family they will experience more strain when facing the threat of losing their jobs (Warr, 1987). Buitendach, Oosthuizen and van Wyk (2005) found no relationship between gender and job insecurity. It must be kept in mind that females represent only 7% of the study population in the latter study.

According to Näswall and De Witte (2003) social status affects the level of job insecurity experienced. The type of work a person is doing, like blue-collar worker, white-collar worker, professional, specialist or manager indicates his/her social status and might therefore affect a person's experience of job insecurity. Blue-collar workers may be more dependant on their income in comparison with white-collar workers and managers (Frese, 1985; Gallie, White, Cheng & Tomlinson, 1998; Kinnunen et al., 1999). It could be reasoned that non-manual workers who usually have a higher level of education will be less vulnerable to job loss in contrast to workers with lower levels of education (Schaufeli, 1992).

The education level that indicates the employability of employees (Fugate & Ashforth, 2003; Gallie et al., 1998; Sverke & Hellgren, 2002) will affect the choices they have on the labour market. Higher education might lead to less vulnerability in the labor market as Hartley et al. (1991) found that respondents with higher levels of education experienced less job insecurity.

Self-efficacy and work locus of control forms part of the salutogenic paradigm (Strümpfer, 1995). Salutogenesis refers to the paradigm that investigates a person's ability to manage stress, to stay healthy and perform well despite the presence of a variety of stressors (Strümpfer, 1995). Antonovsky (1979) stated that individuals develop means to adapt to the different stressors in life by their practical experiences.

The negative effect of job insecurity stimulates research about the factors that are related to and influence job insecurity (Sverke et al., 2004). In the next paragraphs the relationship of self-efficacy, work locus of control and dispositional optimism with job insecurity will be discussed.

Self-efficacy is defined as an individual's belief in his/her capabilities to organise and execute the courses of action required to manage prospective situations (Bandura, 1997). Bandura (1986) perceives self-efficacy as the source of human motivation, well-being and personal accomplishment. The belief that people have about their abilities and the outcome of their efforts have a powerful influence on the way in which they will behave (Bandura, 1986). Research about the correlation between self-efficacy and job insecurity is limited. Only a few studies could be found in the literature that studied the relationship between self-efficacy and job insecurity. Elbert (2002) as well as Human (2002) found a positive correlation between low levels of job insecurity and self-efficacy indicating that self-efficacy influences the level of job insecurity. Soehnlein (1998) found that high levels of self-efficacy are associated with lower levels of job insecurity. It is evident from the limited research on the relationship between self-efficacy and job insecurity that high levels of self-efficacy are associated with lower levels of job insecurity.

Dispositional optimism can be defined as a person's positive outlook towards life events (Ebert, Tucker & Roth, 2002; Scheier, Carver & Bridges, 1994). Dispositional optimism has been identified as an important factor in physical well-being, especially for people experiencing stress (Cassidy, 2000). A number of researchers described dispositional optimism as a psychological resistance factor, which could be used to conceptualise individual differences and are related to more positive outcomes (Ebert et al., 2002). Positive outcomes being predicted by optimism include, coping with major life stresses, adjusting to major life transitions, and more positive responses to minor stresses (Hasan & Power, 2002). According to Hasan and Power (2002) optimistic people make stable attributions for positive events and unstable attributions for negative events, whereas pessimistic people do just the opposite. However, it seems as if optimistic people are better able to handle stress. They rely on strategies that help to control or adapt to aspects

of stressors, they normally seek information and are also more concerned in planning and positive re-framing (Jackson, Weiss & Lundquist, 2001). Pessimists on the other hand tend to use strategies such as negative coping, cognitive or behavioural avoidance, denial, disengagement and/or substance abuse (Harju & Bolen, 1998; Jackson et al., 2001). As a result, optimism has mostly been linked to active, persistent, health-oriented coping, while pessimism is more likely to be linked with emotional distress, health concerns and negative coping (Harju & Bolen, 1998). Optimism seems to be an important dispositional quality that could influence well-being. Because of the fact that optimistic people are able to handle stress more effectively, and are more concerned with positive reframing, optimism is associated with lower job security.

In terms of *Work Locus of Control* the literature distinguishes between general locus of control and work locus of control. General locus of control is defined as the degree to which people believe they are masters of their own fate (Robbins, 2001). Work locus of control refers to locus of control in the work domain (Spector, 1988). Spector (1988) refers to locus of control as a generalised expectancy where outcomes in life are either controlled by one's own actions (internally) or by other forces (externally). In the organisational milieu rewards and career outcomes are either attributed to own actions or other forces. Internal work locus of control is associated with positive outcomes in the work environment like high levels of job satisfaction, commitment, achievement motivation, involvement, low levels of stress, absenteeism, and turnover (Bothma & Schepers, 1997; Coetzee & Schepers, 1997; Le Roux, Schmidt & Schepers, 1997; Pretorius & Rothmann, 2001; Spector, 1982).

Although research on the relationship between job insecurity and work locus of control is scarce, a few studies report a positive relationship between internal work locus of control and low job insecurity. Salter (1999) found a positive correlation between job security and internal work locus of control. Individuals with an internal work locus of control have more job security. Higher levels of job security correlated with an internal work locus of control. Borg and Elizur (1992), Ashford, Lee and Bobko (1989) and Reisel (1998) found that internal locus of control is associated with lower job insecurity. Elbert

(2002) found no correlation between job insecurity and work locus of control in South Africa. In an other South African study Labuschagne, Bosman and Buitendach (2005) found that workers who experience cognitive job insecurity tend to experience a more external work locus of control.

There is substantial evidence in the literature that job insecurity is harmful for psychological well-being of workers (De Witte, 1999). From a psychological viewpoint research about factors which influence job insecurity is becoming increasingly important. Based on the limited research done on the relationship between job insecurity, self-efficacy, work locus of control and dispositional optimism (as indicated in the above paragraphs) it could be hypothesised that candidates who score high on these attributes (self-efficacy, work locus of control and dispositional optimism) will experience less job insecurity and therefore score low on job insecurity.

This research was undertaken at a large financial institution in South Africa which was recently restructured. The restructuring process might have resulted in increasing job insecurity. The organisation embarked on a future literacy-training programme for all their employees as a way of introducing the principles of the changing world of work. The relationship between job insecurity, self-efficacy, work locus of control and dispositional optimism is important in order to come to better understand the factors that influence job insecurity in a changing world of work.

The negative impact of job insecurity in the industrial environment gives rise to the following research questions:

- What is the relationship between job insecurity, self-efficacy, work locus of control and dispositional optimism?
- What is the influence of demographical variables on job insecurity? Kinnunen et al. (1999) concluded that job insecurity is influenced by individual and positional characteristics like age, gender, socio-economic status and personality characteristics.

- Do self-efficacy, work locus of control and dispositional optimism hold predictive value with regards to job insecurity?

The above discussion leads to the following hypotheses:

H₁: A practically significant relationship exists between job insecurity and self-efficacy.

H₂: A practically significant relationship exists between job insecurity and work locus of control.

H₃: A practically significant relationship exists between job insecurity and dispositional optimism.

H₄: Older employees differ from younger employees in their experience of job insecurity.

H₅: Males differ from females in their experience of job insecurity.

H₆: Employees with different qualifications differ in terms of their experience of job insecurity.

H₇: Self-efficacy, work locus of control and dispositional optimism holds predictive value with regards to job insecurity.

RESEARCH DESIGN

Research approach

A cross-sectional design (Burns & Grove, 1993) was used for this study. Cross-sectional designs are appropriate where groups of subjects at various stages of development are studied simultaneously, whereas the survey technique of data collection gathers information from the target population by means of questionnaires (Burns & Grove, 1993).

Participants

The sample ($n = 459$) was subjected to a specific programme of future literacy (Map Your Life) training. Questionnaires were completed prior to the training programme. The characteristics of the participants are indicated in Table 1.

Table 1

Characteristics of the Participants

Item	Category	Frequency	Percentage
Gender	Male	231	51%
	Female	221	49%
Race	Black	80	18%
	White	352	82%
Age groups	24-35 years	128	28%
	36-45 years	172	38%
	46-56 years and older	153	34%
Qualifications	Grade 10-12	243	54%
	Diploma or Degree	209	46%
Work category	Management	52	12%
	Specialist	158	35%
	Administrative	237	53%
Region	Pretoria	270	59%
	Port Elizabeth	127	28%
	Vaal Triangle	62	14%

As indicated in Table 1, the majority of the participants were White (82%), between the ages of 36-45 years (38%), administrative workers (53%) and (58,8%) came from the Pretoria region. Most participants (54%) had Grade 10-12 qualification whereas only 46% of the participants had tertiary qualifications.

Measuring instruments

The Job Insecurity Questionnaire (JIQ) that was developed by De Witte (2000) was used to measure job insecurity. The questionnaire consists of 11 items arranged along a 5-point Likert type scale. The JIQ measures cognitive job insecurity and affective job insecurity. Cognitive job insecurity refers to the possibility of becoming unemployed while affective job insecurity refers to the emotional experience of the possible threatening situation. A typical question about cognitive job insecurity is: "I am worried about keeping my job". An example of a question about affective job insecurity is "I feel insecure about the future of my job". De Witte (2000) reported a Cronbach alpha coefficient of 0,92 for the total score of job insecurity, 0,90 for the cognitive job insecurity and 0,85 for affective job insecurity. Heymans (2002) obtained an alpha coefficient of 0,81 for the total score of job insecurity, 0,64 for cognitive insecurity and 0,85 for affective insecurity. In other South African studies Moeletsi (2003) also reported an alpha coefficient of 0,93 for the total score, 0,86 for affective insecurity and 0,91 for cognitive insecurity. Bosman (2005) reported a Cronbach alpha coefficient of 0,70 for the cognitive job insecurity and 0,72 for affective job insecurity.

The General Perceived Self-efficacy Scale (GPSES) which was developed by Tipton and Worthington (1982) was used to measure self-efficacy. Bandura (1997) defines self-efficacy as an individual's belief in his/her capabilities to organise and execute the courses of action required to manage prospective situations. Robbins (2001) defines self-efficacy as an individual's perception of how capable he/she is to perform a task. The higher a candidate's self-efficacy the more confidence is being displayed for being successful. The GPSES is a 10-item questionnaire to measure the self-efficacy of individuals in a variety of situations. Typical items of the self-efficacy scale are "I can always manage to solve difficult problems if I try hard enough" and "I can usually handle what comes my way". Reliability coefficients higher than 0,80 were obtained by Rothmann and Van Rensburg (2001) and Elbert (2002).

The Work Locus of Control Scale (WLCS) developed by Spector (1988), was used to measure work locus of control. Work locus of control refers to the degree to which people believe that they determine their own destiny. Individuals with an internal work locus of control believe that they control what happens to them while individuals with an external work locus of control blame external forces for their progress or failure. People with an external work locus of control do not take responsibility for their own actions. They tend to blame the outcome of situations on others, usually external factors out of their control. The Work Locus of Control Scale is a 16-item questionnaire. Examples of items included in the work locus of control questionnaire are: "Making money is primarily a matter of luck" and "Promotions are given to employees who perform well in their job". Cronbach alpha coefficients reported for the WLCS vary from 0,70 to 0,75 according to Spector (1988). In a South African study Elbert (2002) as well as Rothmann and Van Rensburg (2001) found Cronbach alpha coefficients higher than 0,70. In another South African study Labuschagne, Bosman and Buitendach (2005) found a Cronbach alpha coefficient of 0,68.

The Life Orientation Test-Revised (LOT-R) developed by Scheier, Weintraub and Carver (1994), was used to measure dispositional optimism. Six items contribute to the optimism score and four items are fillers. The LOT-R is measured on a 5-point Likert scale, ranging from 5 = "I strongly agree" to 1 = "I strongly disagree". Examples of items in the questionnaire are: "In uncertain times I usually expect the best" and "I hardly ever expect things to go my way". The LOT-R was found to have adequate internal consistency (Cronbach's alpha = 0,78) and excellent convergent and discriminative validity (Scheier et al., 1994). Based on a sample of 204 college students, Harju and Bolen (1998) obtained a Cronbach alpha coefficient of 0,75.

Statistical analysis

The data analysis was carried out with the help of the SAS program (SAS Institute, 2002) and the SPSS-program (SPSS, 2003). These programmes were used to carry out the statistical analysis regarding reliability and validity of the measuring instruments, descriptive statistics, t-tests, analysis of variance, and correlation coefficients. Descriptive statistics (e.g. means, standard deviations, range, skewness and kurtosis) and inferential statistics were used to analyse the data. The arithmetic mean was used to indicate the mean (average) score of the study population on the questionnaires. The standard deviation indicates the distances of all individual scores from the arithmetic mean. The higher the standard deviation the greater the distances are from the mean. Skewness is a descriptive indication of symmetry that gives an indication of the level of skewness (positive or negative) of the population. Kurtosis refers to the peaked ness of curves. Curves can be elevated or flattened (Kerlinger & Lee, 2000).

Exploratory and confirmatory factor analysis was used to determine the number of factors for each questionnaire as well as the loading of items on the specific factors. Factor analysis is a mathematical procedure to cluster items or groupings of items to determine to which grouping each item or groups of items belong (Kerlinger & Lee, 2000). Factor loadings lower than 0,45 was regarded as insignificant.

Cronbach alpha coefficients were used to determine the internal consistencies of the questionnaires used (Nunnally & Bernstein, 1994). Cronbach alpha coefficients give an indication of the extent to which all items are measuring the same characteristic. According to Nunnally and Bernstein (1994) Cronbach alpha coefficients need to be higher than 0,70.

The Pearson product moment correlation coefficient was used to determine the extent to which one variable relates to another variable. According to Cohen (1988) the following

cut-off points are recognised for determining the level of practical significance:

$r \geq 0,30$ medium effect

$r \geq 0,50$ large effect

Values larger than $r = 0,30$ are regarded as practically significant for the purposes of this research.

Multivariate analysis of variance (MANOVA) were used to determine the significance of the difference between job insecurity and future literacy of the demographic groups, such as age, qualifications, gender, regions and work category. MANOVA tests whether mean differences among groups of a combination of dependent variables are likely to have occurred by chance (Tabachnick & Fidell, 2001). In MANOVA a new dependent variable that maximises group differences is created from the set of dependent variables. One-way analysis is then performed on the newly created dependent variable. Wilk's lambda was used to test the significance of the effect. Wilk's lambda is a likelihood ratio statistic of the data under the assumption of equal population mean vectors for all groups against likelihood under the assumption that the population mean vectors are identical to those of the sample mean vectors of the different groups. When a significant effect was discovered in MANOVA, ANOVA was used to discover which independent variables were affected. Because multiple ANOVAS were used, a Bonferroni type adjustment was made for Type one error. The Tukey HSD test was carried out to indicate which groups differed significantly when ANOVAS were calculated.

The following formula was used to determine the practical significances (d) when t-tests were used (Steyn, 1999):

$$d = (\text{Mean}_A - \text{Mean}_B) / \text{RMSE}$$

where

Mean_A = Mean of the first group

Mean_B = Mean of the second group

RMSE = Root Mean Square Error

A cut-off point of 0,50 (medium effect) (Cohen, 1988) was set for the practical significance of the differences between means.

Multiple regression analysis, controlling for the influence of background variables, was conducted to determine the whether self-efficacy, work locus of control and dispositional optimism could predict job insecurity.

RESULTS

Firstly, simple principal components analyses were performed on the different questionnaires. The results of the principal components analysis of the Job Insecurity Questionnaire are presented in Table 2.

Table 2

Principal Components Matrix of the Job Insecurity Questionnaire

Job Insecurity Questionnaire (JIQ)	Component loadings
1 I am afraid that I will be dismissed/get fired	-0.79
2 I am worried about keeping my job	-0.83
3 I fear I will lose my job	-0.87
4 The fact that I might become unemployed frightens me	-0.66
5 I feel insecure about the future of my job	-0.83
6 The chance that I will be dismissed is small (R)*	-0.43
7 I think that I might be retrenched in the near future	-0.73
8 Chances are that I might soon lose my job	-0.79
9 I think I can continue working for my organisation (R)*	-0.58
10 I am sure I can keep my job (R)*	-0.70
11 I feel secure about my job (R)*	-0.76

*(R) - items were reversed prior to conducting the statistical analysis

According to De Witte (2000) the JIQ consists out of two factors namely cognitive job and affective job insecurity. Cognitive job insecurity refers to the possibility of becoming unemployed while affective job insecurity refers to the emotional experience of the possible threatening situation. The scree plot as well as the eigenvalue of the Job Insecurity Questionnaire (is higher than 1) indicate that one factor could be extracted.

One factor explained 45% of the total variance of the questionnaire. These results are supported by the findings of Bosman (2005) who reported a good fit of the Job Insecurity Questionnaire data to a unidimensional model. Since factor analysis suggests a one factor model for the Job Insecurity Questionnaire it was decided to utilise only the total score of the Questionnaire.

Principal components analyses were also carried out on the General Perceived Self-efficacy Scale (GPSES), Work Locus of Control Scale and the Lot-R. These results are presented next.

Table 3

Principal Components Matrix of the General Perceived Self-efficacy Questionnaire

General Perceived Self-efficacy Questionnaire (GPSES)		Component loadings
1	I can always manage to solve difficult problems if I try hard enough	-0,61
2	If someone opposes me I can find means and ways to get what I want	-0,58
3	It is easy for me to stick to my aims and accomplish my goals	-0,61
4	I am confident that I could deal efficiently with unexpected events	-0,71
5	Thanks to my resourcefulness I know how to handle unforeseen situations	-0,76
6	I can solve most problems if I invest the necessary effort	-0,75
7	I can remain calm when facing difficulties because I can rely on my coping abilities	-0,70
8	When I am confronted with a problem, I can usually provide several solutions	-0,75
9	If I am in trouble, I can usually think of a solution	-0,78
10	I can usually handle what comes my way	-0,75

The principal components analysis of the General Perceived Self-efficacy Scale (GPSES) confirmed a one factor model where all the items loaded high on one factor. The one factor model explained 50% of the variance. This finding is in line with the finding of Tipton and Worthington (1982). Principal components analyses of the Work Locus of Control Questionnaire is presented in Table 4.

Table 4

Principal Components Matrix of the Work Locus of Control Questionnaire

No	Work Locus of Control Questionnaire	Component loadings: Factor 1 external work locus of control	Component loadings: Factor 2 internal work locus of control
1	A job is what you make of it.	-0,00	0,66
2	With most jobs, people can pretty much accomplish whatever they set out to accomplish.	0,07	0,63
3	If you know what you want out of a job, you can find a job that gives it to you.	0,16	0,64
4	If employees are unhappy with decisions made by their boss, they should do something about it.	0,36	0,63
5	Getting the job you want is mostly a matter of luck.	0,68	0,12
6	Making money is primarily a matter of good fortune.	0,72	-0,09
7	Most people are capable of doing their jobs well if they make the effort.	-0,04	0,64
8	In order to get a really good job, you need family members or friends in high places.	0,75	0,15
9	Promotions are usually a matter of good fortune.	0,77	0,13
10	When it comes to getting a really good job, who you know is more important than what you know.	0,77	0,09
11	Promotions are given to employees who perform well on their job.	0,19	0,60
12	To make a lot of money you have to know the right people.	0,63	0,10
13	It takes a lot of luck to be an outstanding employee on most jobs.	0,68	0,06
14	People who perform their jobs well generally get rewarded for it.	0,23	0,65
15	Most employees have more influence on their supervisors than they think.	-0,16	0,42
16	The main difference between people who make a lot of money and people who makes less, is luck.	0,71	0,09

The principal components analysis of the Work Locus of Control Scale indicated a two factor model explaining 46% of the variance. Items measuring an external work locus of control loaded on Factor 1; External Work Locus of Control (items 5, 8, 9, 10, 12, 13, 16) while items that measured an internal work locus of control loaded on Factor 2; Internal

Work Locus of Control (items 1, 2, 3, 4, 7, 11, 14, 15). Since the principal components analysis of the Work Locus of Control Scale indicated a two factor model the researcher have decided to utilise the two factor model in this research. The principal components matrix of the Lot-R Questionnaire is presented in Table 5.

Table 5

Principal Components Matrix of the Lot-R Questionnaire

Lot-R Questionnaire	Component loadings
1 In uncertain times, I usually expect the best.	-0,37
3 If something can go wrong for me, it will.	-0,58
4 I'm always optimistic about my future.	-0,59
7 I hardly ever expect things to go my way (R).	-0,73
9 I rarely count on good things happening to me (R).	-0,59
10 Overall, I expect more good things to happen to me than bad (R).	-0,61

Principal components analysis of the Lot-R showed high loading confirming a one factor model which explained 35% of the variance. Filler items (items number 2, 5, 6 and 8) were removed prior to conducting the statistical analysis. Descriptive statistics of the measurement instruments is presented in Table 6.

Table 6

Descriptive Statistics of the Measurement Instruments

Questionnaires	Mean	SD	Skewness	Kurtosis	Cronbach alpha	Mean inter-item correlations
External Work Locus of Control	4,81	0,70	-1,38	3,75	0,87	0,46
Internal Work Locus of Control	3,83	1,12	-0,14	-0,65	0,76	0,30
General Perceived Self-efficacy Questionnaire (GPSES)	3,26	0,42	-0,01	-0,44	0,88	0,44
Job Insecurity	2,45	1,82	0,25	-0,37	0,91	0,50
Dispositional Optimism (Lot-R)	3,55	0,65	0,07	-0,19	0,64	0,21

According to Table 6 the questionnaires showed Cronbach alpha coefficients higher than 0,72 with the exception of Lot-R (dispositional optimism). Cronbach alpha coefficients need to be higher than 0,70 (Nunnally & Bernstein, 1994). The Cronbach alpha coefficient of 0,64 that was obtained with the Lot-R questionnaire is not in line with the findings of Scheier et al. (1994) who obtained a Cronbach alpha coefficient of 0,78 as well as Harju and Bolen (1998) who obtained a Cronbach alpha coefficient of 0,75. It is important to note that the low Cronbach alpha coefficient of the Lot-R questionnaire needs further research.

The skewness and kurtosis in Table 6 indicate a normal distribution. It was decided to utilise these questionnaires in their existing format.

In Table 7 the Pearson correlation coefficients between job insecurity, self-efficacy, dispositional optimism and work locus of control are represented.

Table 7

Pearson Correlations Between Job Insecurity, Self-Efficacy, Dispositional Optimism and Work Locus of Control

Correlations between	Self- efficacy	Job Insecurity	Dispositional optimism
Job Insecurity	-0,39+*		
Dispositional Optimism (Lot-R)	0,40+*	-0,50+**	
External Work Locus of Control	-0,18+	0,37+*	-0,30+*
Internal Work Locus of Control	0,34+*	-0,34+*	0,33+*

+ All the above correlations are statistically significant $p < 0,01$

* Correlation is practically significant, medium effect ($r \geq 0,30$)

** Correlation is practically significant, large effect ($r \geq 0,50$)

The results of Table 7 illustrate that self-efficacy correlated negatively practically significantly (0,39 medium effect) with job insecurity implicating that job insecurity decreases as self-efficacy increases. Self-efficacy correlated positively (0,40 medium effect) with dispositional optimism. Self-efficacy increased as dispositional optimism increased. Higher levels of self-efficacy are associated with optimism.

A practically significantly negative correlation of a large effect (-0,50) was established between the total score of job insecurity and dispositional optimism. Dispositional optimism is associated with improved coping (Harju & Bolen, 1998) and could explain the fact that job insecurity decreases as dispositional optimism increases. The results indicated that participants with high levels of dispositional optimism experience lower levels of job insecurity.

External work locus of control had a statistically significant (but not practically significant) negative correlation with self-efficacy. The latter indicates that as an external work locus of control increases self efficacy decreases.

Internal work locus of control correlated practically significantly with self-efficacy (0,34, medium effect). This correlation is in line with the definition of the work locus of control and the self-efficacy construct. Locus of control is defined as the degree to which people believe they are masters of their own fate (Robbins, 2001) while self-efficacy is defined as an individual's belief in his/her capabilities to organise and execute the courses of action required to manage prospective situations (Bandura, 1997). Participants with an internal work locus of control believe that they are masters of their own fate and they also believe they possess the capability to be successful.

External work locus of control correlated negatively with dispositional optimism (0,30) practically significantly of a medium effect. The latter indicates that dispositional optimism decreases as an external work locus of control increases.

Internal work locus of control correlated with and dispositional optimism (0,33) practically significantly of a medium effect. Dispositional optimism can be defined as a person's positive outlook towards life events (Ebert et al., 2002; Scheier et al., 1994). Dispositional optimism has been identified as an important factor in physical well-being, especially for people experiencing stress (Cassidy, 2000). Participants with an internal work locus of control tend to be positive about life.

External work locus of control had a practically significant correlation (0,37) of a medium effect with job insecurity. Job insecurity increases as an external work locus of control increases. This correlation is in line with the definition of an external work locus of control that implies that participants do not take responsibility for their actions but rather ascribed the outcome of their actions to external factors that was not under their control. Participants with an external work locus of control experience higher levels of job insecurity, possibly because of their tendency not to take personal responsibility for their actions.

A practically significant negative correlation of a medium effect was also obtained between internal work locus of control and job insecurity (-0,34). Job insecurity decreases as an internal work locus of control increases. Participants with an internal work locus of control experience less job insecurity probably because of their tendency to take personally responsibility for the outcome of situations.

Differences Between Groups

Next, MANOVA and ANOVA analysis were used to determine the relationship between job insecurity and various demographic groups such as age, work category and region. Demographic groups were analysed for significance using Wilk's Lambda statistics. In Table 8 the results of these comparisons are reported.

Table 8

MANOVA of Job Insecurity, Age, Work Category and Region

Variable	Value	F	df	DENDF	p
Age	0,95	2,01	12	1175	0,000*
Work category	0,90	3,67	12	1159	0,000*
Region	0,96	2,89	6	900	0,008*

* Statistically significant difference: $p < 0,01$

Wilk's Lambda values in Table 8 indicated statistically significant differences regarding job insecurity between age, work categories and region. Work categories indicate the respondents position in the company, e.g. management, specialist or administrative personnel. The relationship between job insecurity, age, work category and region were further analysed to determine the practical significance of the differences using ANOVA, followed by Tukey HSD tests. The differences between job insecurity of the different age groups are indicated in Table 9.

Table 9

Differences Between Job Insecurity of Different the Age Groups

Age	24 and younger	25-35 years	36-45 Years	46-55 years	56 years and older	Cohen's d
Mean	2,57	2,53	2,59	2,38	2,04	
24 and younger		0,99	0,99	0,95	0,36	
25-35 years			0,95	0,55	0,00+	0,60*
36-45 Years				0,13	0,00+	0,69*
46-55 years					0,96	
56 years and older						

+ Statistically significant difference $p < 0,01$

* Practically significant difference, medium effect ($d \geq 0,50$)

** Practically significant difference, large effect ($d \geq 0,80$)

Effect-sizes (Cohen, 1988; Steyn, 1999) were used in addition to statistical significance to determine the practical significance of results. Effect-sizes indicate whether obtained results are important (while statistical significance often shows, results may be of little practical significance). Table 9 indicated significant differences were evident in the job insecurity levels of the age groups of 25-35 years, 36-45 years and 56 years and older. The age group 36-45 years experienced higher levels of job insecurity (practically significant difference, medium effect) when compared to the age group of 25-35 and 56 years and older. The age of 36-45 seems to be a difficult phase in the career of the individual (Sverke et al., 2004). This is usually the time when most individuals have to make serious decisions about their long term career. It is therefore important for the organisation to attend to the job insecurity of this age group. In this research job insecurity seems to be less problematic for the younger and older generation. It is possible that the younger generation has less responsibilities while the older generation is preparing for the new role of retirement (De Witte, 1999). In Table 10 the differences between job insecurity of the different work categories are presented.

Table 10

Differences Between Job Insecurity of the Different Work Categories

Work categories	Management	Specialist	Fist Line Management	General Workers
Mean	2,39	2,23	2,78	2,79
Management		0,73	0,22	0,06
Specialist			0,00+* ^a	0,00+* ^b
Fist Line Management				0,99
General Workers				

+ Statistically significant difference $p < 0,01$

* Practically significant difference, medium effect; ($d \geq 0,50$)

** Practically significant difference, large effect ($d \geq 0,80$)

Practically significant difference, medium effect where a; $d = 0,70$ and b; $d = 0,69$ (Cohen's d)

Table 10 indicates practically significant differences of a medium effect between specialists, first line management and other workers in terms of job insecurity. General

workers, who were mostly administrative workers, experienced more job insecurity than any other category. The difference was practically significant of a medium effect. The recent restructuring which the study population experienced seemed to have a bigger impact on the general workers.

Regarding the differences between job insecurity of the different regions no statistically significant differences were found. Next, t-tests were used to determine differences between the demographic variables, gender and qualifications. The results of the t-tests are presented in Table 11.

Table 11

T-tests: Significant Differences, Gender and Qualifications

Gender	Males		Female		Values		
	Mean	Std Dev	Mean	Std Dev	t-Value	p-Value	Cohen's d
Internal Work Locus of Control	4,02	1,03	3,60	1,17	3,97	0,00+	0,35
Self-efficacy	3,30	0,41	3,22	0,42	2,02	0,04+	0,19
Job Insecurity	2,27	0,82	2,64	0,80	-4,75	0,00	0,44
Dispositional Optimism	3,64	0,65	3,45	0,64	3,10	0,00+	0,29
Qualifications	Grade 10-12		Graduates		Values		
	Mean	Std Dev	Mean	Std Dev	t-Value	p-Value	Cohen's d
Job Insecurity	2,57	0,85	2,32	0,79	3,24	0,00+	0,30
Dispositional Optimism	3,48	0,62	3,62	0,67	-2,40	0,02+	0,23

+ All the differences are statistically significant: $p < 0,01$

The following cut-off points are recognised:

* $\geq 0,50$ medium effect

** $\geq 0,80$ large effect

The differences reflected in Table 11 are all statistically significant but all are not practically significant. Females scored lower on internal work locus of control, self-efficacy and are less optimistic when compared to males. In terms of qualifications, graduates experience less job insecurity and are more optimistic than candidates with a Grade 10-12 qualification.

Multiple regression analysis was used with job insecurity as dependent variable, also controlling for the effects of demographic variables such as gender, race, age, qualifications and work category. The results of the multiple regression analysis appear in Table 12, 13 and 14.

Table 12

Regression Analysis – Demographic Variables and Self-efficacy: Job Insecurity

ANALYSIS OF VARIANCE					
Model 1: Demographic variables					
<i>R</i> : 0,25	Source of variation		<i>df</i>	Sum of	Mean Square
<i>R</i> ² : 0,63				squares	
Adjusted <i>R</i> ² : 0,52	Regression		5	18,28	3,66
Standard Error: 0,80	Residual		491	271,69	0,65
	<i>F</i> = 5,636 <i>p</i> = 0,000				
Model 2: Demographic variables and self-efficacy					
<i>R</i> : 0,44	Source of variation		<i>df</i>	Sum of	Mean Square
<i>R</i> ² : 0,19				squares	
Adjusted <i>R</i> ² : 0,18	Regression		6	54,91	9,15
Standard Error: 0,75	Residual		418	235,05	0,56
	<i>F</i> = 16,28 <i>p</i> = 0,000				
VARIABLES IN THE EQUATION					
INDEPENDENT VARIABLES	B	SEB	Beta	<i>t</i>	<i>p</i>
Gender	0,28	0,05	0,17	3,33	0,000+
Race	0,09	0,05	0,04	0,87	0,381
Age	0,07	0,04	-0,07	-1,54	0,124
Qualification	-0,16	0,05	-0,10	-2,04	0,041+
Work category	-0,00	0,05	-0,00	0,80	0,935
Gender	-0,23	0,05	0,14	3,03	0,002+
Race	0,03	0,05	0,01	0,35	0,720
Age	-0,08	0,05	-0,07	-1,64	0,100
Qualification	-0,14	0,05	-0,08	-1,81	0,070
Work category	-0,02	0,05	-0,01	-0,42	0,674
Self-efficacy	-0,72	0,04	-0,36	-8,07	0,000+

+ Statistically significant *p* < 0,01

According to Table 12 gender and qualifications predicted 52% of the variation in job insecurity. A R-value of 0,25 was obtained, which falls below the practically significant

cut-off point (0,30) and the model was not found to be statistically significant. When self-efficacy was included in the second model, a practically significant R-value of a medium effect was obtained (0,44). The effect of qualifications disappeared while gender and self-efficacy predicted 18% of the variation in job insecurity.

Table 13

Regression Analysis – Demographic Variables and Work Locus of Control: Job Insecurity

ANALYSIS OF VARIANCE					
Model 1: Demographic variables					
	Source of variation	<i>df</i>	Sum of squares	Mean Square	
<i>R</i> : 0,25					
<i>R</i> ² : 0,63					
Adjusted <i>R</i> ² : 0,52	Regression	5	18,28	3,66	
Standard Error: 0,80	Residual	491	271,69	0,65	
<i>F</i> = 5,636 <i>p</i> = 0,000					
Model 2: Demographic variables and work locus of control (internal and external)					
	Source of variation	<i>df</i>	Sum of squares	Mean Square	
<i>R</i> : 0,48					
<i>R</i> ² : 0,23					
Adjusted <i>R</i> ² : 0,21	Regression	7	66,98	9,56	
Standard Error: 0,73	Residual	417	222,99	0,53	
<i>F</i> = 17,90 <i>p</i> = 0,000					
VARIABLES IN THE EQUATION					
INDEPENDENT VARIABLES	B	SEB	Beta	<i>t</i>	<i>p</i>
Gender	0,28	0,05	0,17	3,33	0,000+
Race	0,09	0,05	0,04	0,87	0,381
Age	0,07	0,04	-0,07	-1,54	0,124
Qualification	-0,16	0,05	-0,10	-2,04	0,041+
Work category	-0,00	0,05	-0,00	0,80	0,935
Gender	0,17	0,05	0,10	2,29	0,022
Race	0,07	0,04	0,03	0,76	0,443
Age	-0,04	0,04	-0,04	-1,00	0,317
Qualification	-0,13	0,05	-0,08	-1,83	0,067
Work category	-0,01	0,04	-0,01	-0,27	0,783
Work locus of control internal	-0,29	0,04	-0,25	-5,78	0,000+
Work locus of control external	-0,21	0,04	-0,29	-6,52	0,000+

+ Statistically significant *p* < 0,01

The regression analysis in Table 13 indicated that with the inclusion of internal and external work locus of control in the second model, the effect of the biographical variables (gender and qualifications) disappeared. Internal and external work locus of control predicted 21% of the variance in job insecurity. The model was statistically significant of a medium effect (0,48).

Table 14

Regression Analysis – Demographic Variables and Dispositional Optimism: Job Insecurity

ANALYSIS OF VARIANCE					
Model 1: Demographic variables					
<i>R</i> : 0,25	Source of variation		<i>df</i>	Sum of	Mean Square
<i>R</i> ² : 0,63				squares	
Adjusted <i>R</i> ² : 0,52	Regression		5	18,28	3,66
Standard Error: 0,80	Residual		491	271,69	0,65
	<i>F</i> = 5,636 <i>p</i> = 0,000				
Model 2: Demographic variables and dispositional optimism					
<i>R</i> : 0,50	Source of variation		<i>df</i>	Sum of	Mean Square
<i>R</i> ² : 0,26				squares	
Adjusted <i>R</i> ² : 0,24	Regression		6	62,79	1,46
Standard Error: 0,67	Residual		414	191,26	0,46
	<i>F</i> = 2,65 <i>p</i> = 0,000				
VARIABLES IN THE EQUATION					
INDEPENDENT VARIABLES	B	SEB	Beta	<i>t</i>	<i>p</i>
Gender	0,28	0,05	0,17	3,33	0,000+
Race	0,09	0,05	0,04	0,87	0,381
Age	0,07	0,04	-0,07	-1,54	0,124
Qualification	-0,16	0,05	-0,10	-2,04	0,041+
Work category	-0,00	0,05	-0,00	0,80	0,935
Gender	0,33	0,04	0,21	4,60	0,000+
Race	0,00	0,04	0,00	0,10	0,919
Age	0,06	0,05	0,16	1,41	0,158
Qualification	-0,12	0,05	-0,08	-1,82	0,068
Work category	-0,09	0,05	-0,08	-1,81	0,070
Dispositional optimism	-0,51	0,04	-0,42	-9,74	0,000+

+ Statistically significant *p* < 0,01

The regression analysis in Table 14 indicated that gender and dispositional optimism predicted 24% of the variance in job insecurity in the second model. The model was practically significant R-value (0,50) of a large. The influence of gender on job insecurity may run through dispositional optimism.

DISCUSSION

The purpose of this research was to investigate the relationship between job insecurity, as dependent variable and self-efficacy, work locus of control and dispositional optimism as independent variables. Prior to determining the relationships between the different constructs, simple principal components analyses were performed on the different questionnaires, as well as establishing the Cronbach alpha coefficients.

Principal components analyses of the different questionnaires displayed satisfactory factor loadings with the exception of the Job Insecurity Questionnaire. The principal components matrix of the Job Insecurity Questionnaire suggests one factor. One factor explained 45% of the total variance of the questionnaire. It was decided to use only the total score of the questionnaire. These results are supported by the findings of Bosman (2005), who reported a good fit of the Job Insecurity Questionnaire data to a unidimensional model.

The principal components analyses of the General Perceived Self-efficacy Scale (GPSES) confirmed a one factor model that is in line with the finding of Tipton and Worthington (1982). The one factor model explained 50% of the variance.

The principal components analysis of the Work Locus of Control Scale indicated a two factor model explaining 46% of the variance. Items measuring an external work locus of control loaded on Factor 1 External Work Locus of Control while items that measured an internal work locus of control loaded on Factor 2 internal work locus of control. The principal components analyses of the Lot-R (measuring dispositional optimism) confirmed a one factor model which explained 35% of the variance.

The reliability of the measuring instruments was examined by determining the Cronbach alpha coefficients. Most measuring instruments exhibited Cronbach alpha coefficients higher than 0,70 (Nunnally & Bernstein, 1994) with the exception of the Lot-R questionnaire (dispositional optimism) (0,64). The Cronbach alpha coefficient of 0,64 that was obtained with the Lot-R are not in line with the findings of Scheier et al. (1994) who obtained a Cronbach alpha coefficient of 0,78 as well as Harju and Bolen (1998) who obtained a Cronbach alpha coefficient of 0,75. It was decided to utilise Lot-R Questionnaire in spite of its lower Cronbach alpha coefficient. The Cronbach alpha coefficient of the Lot-R (0,64) Questionnaire indicate that further research is needed on this Questionnaire.

With reference to the relationship between job insecurity self-efficacy, work locus of control and dispositional optimism practically significant correlations were evident between the constructs. First the relationship between self-efficacy, job insecurity and dispositional optimism will be discussed.

Self-efficacy displayed a practically significant correlation of medium effect with job insecurity. Job insecurity decreased as self-efficacy increased. This finding is in line with the definition of self-efficacy. Bandura (1997) defines self-efficacy as an individual's belief in his/her capabilities to organise and execute the courses of action required to manage prospective situations. The higher a candidate's self-efficacy the more confidence is being displayed for being successful and therefore candidates with high levels of self-efficacy will experience lower levels of job insecurity. The results confirmed the research findings of Elbert (2002), who found a correlation between low job insecurity and self-efficacy. Soehnlein (1998) found that high levels of self-efficacy are related to lower levels of job insecurity. Hypothesis 1 that a practically significant relationship exists between job insecurity and self-efficacy can therefore be accepted.

Self-efficacy correlated (medium effect) with dispositional optimism. Self-efficacy increases as dispositional optimism increases. Higher levels of self-efficacy are associated with optimism.

Secondly the relationship of work locus of control with self-efficacy, dispositional optimism and job insecurity will be discussed. The principal components analysis of the Work Locus of Control Scale indicated a two factor model. Items measuring an external work locus of control loaded on Factor 1 External Work Locus of Control while items that measured an internal work locus of control loaded on Factor 2 Internal Work Locus of Control. Internal work locus of control correlated practically significantly with self-efficacy (0,34, medium effect). Locus of control is defined as the degree to which people believe they are masters of their own fate (Robbins, 2001), while self-efficacy is defined as an individual's belief in his/her capabilities to organise and execute the courses of action required to manage prospective situations (Bandura, 1997). Internal work locus of control is associated with positive outcomes in the work environment like high levels of job satisfaction, commitment, and involvement and low levels of stress, absenteeism, achievement motivation and turnover (Bothma & Schepers, 1997; Coetzee & Schepers, 1997; Le Roux, Schmidt & Schepers, 1997; Pretorius & Rothmann, 2001; Spector, 1982). Participants with an internal locus of control believe that they are masters of their own fate and they also believe they possess the capability to be successful.

With reference to the relationship of external work locus of control and self-efficacy external work locus of control had a statistically significant (but not practically significant) negative correlation with self-efficacy. The latter indicates that as an external work locus of control increases self efficacy decreases.

Internal work locus of control correlated with dispositional optimism (Lot-R) (0,33) practically significant of a medium effect. Dispositional optimism has been identified as an important factor in physical well-being, especially for people experiencing stress (Cassidy, 2000). Participants with an internal work locus of control tend to be positive about life. External work locus of control correlated negatively with dispositional optimism (0,30) practically significantly of a medium effect. The latter indicates that dispositional optimism decreases as an external work locus of control increases.

A practically significant negative correlation of a medium effect was also obtained between internal work locus of control and job insecurity (-0,34). This finding is in line with the results of Ashford et al. (1989), Borg and Elizur (1992), and Reisel (1998) who found that an internal locus of control is associated with lower job insecurity.

Participants with an external work locus of control experience higher levels of job insecurity because external work locus of control had a practically significant correlation (0,37) of a medium effect with job insecurity. Job insecurity increases as an external work locus of control increases. Hypothesis 2 that a practically significant relationship exists between job insecurity and work locus of control can therefore be accepted.

Lastly the relationship between dispositional optimism and job insecurity will be discussed. Dispositional optimism correlated practically significantly negatively (-0,50 of a large effect) with job insecurity implicating that job insecurity decreases as optimism increased. Dispositional optimism is identified as an important factor in physical well-being. Dispositional optimism is also associated with better handling of stress (Cassidy, 2000) resistance (Ebert et al., 2002), positive reframing (Jackson et al., 2001), and active and persistent health coping (Harju & Bolen, 1998). The latter research findings indicate that dispositional optimism is associated with better adaptation and therefore explains the relationship with job insecurity. Hypothesis 3 that a practically significant relationship exists between job insecurity and dispositional optimism can therefore be accepted.

Job insecurity is primarily described as having negative consequences for the individual (De Witte, 1999). Understanding and evaluating the effect of certain personality factors like work locus of control, self efficacy and dispositional optimism on job insecurity is therefore important to come to a fuller understanding of the issues that influence the experience of job insecurity. The results of this research confirm the limited results available on the relationship between job insecurity and certain personality factors like self-efficacy and work locus of control (Sverke et al., 2004). Job insecurity as dependent variable is influenced by personality factors like self-efficacy, work locus of control and dispositional optimism (independent variables) and decreases as these factors increase.

The results indicate that the relationship between job insecurity, self-efficacy, work locus of control and dispositional have important implication for the well-ness of employees in the organisational context. Participants that experience lower levels of job insecurity experience higher levels of self-efficacy, work locus of control and dispositional optimism. It will therefore be important to investigate possible interventions to stimulate these attributes within employees in order to improve employee well-ness. The result of stimulating these attributes on employee well-ness could lead to better adaptation in the organisation and eventually better performance.

With reference to demographic variables MANOVA and ANOVA analysis were used to determine the relationship between job insecurity and various demographic groups such as age, work category and region. Regarding age and job insecurity, practically significant differences were found between the age groups 25-35, 36-45 and 56 years. The age group 36-45 years experienced more job insecurity when compared to the other age groups. The age of 36-45 appear to be a complicated stage in the career of the individual. This is usually the time when most individuals have to make serious decisions about their long term career life. The effect of the changing world of work as well as increasing job insecurity could complicate this phase. Another possible explanation for this difference is the maturity of older employees and it could also be related to the financial prosperity that the company had experienced in the past as well as the financial security that older employees have built up over the years. This results does not corresponded with the findings of Mohr (2000), Hartley et al. (1991) as well as South African studies by Heymans (2000) and Sauer (2003) that older employees experience more job insecurity. Hypothesis 4 that older employees differ in their experience of job insecurity can therefore not be accepted.

With reference to work category, general workers experienced the highest levels of job insecurity in comparison with management and specialists. General workers in the study population represented mainly clerical workers. Management and specialists experienced less job insecurity, possibly because of their hierarchical position and qualifications. Another reason why specialists experienced less job insecurity than general workers is

that the work environment of specialists (at the specific financial institution where the research was undertaken) is similar to that of entrepreneurs. They depend less on the company for their security than management and administrative staff. Näswall and De Witte (2003) stated that social status affects the level of job insecurity experienced. The kind of work a person is doing indicates his/her social status in the organisation. Social status like blue-collar worker, white-collar worker, professional, specialist or management might therefore affect a person's experience of job insecurity. Blue-collar workers may be more dependent on their income in comparison with white-collar workers and managers. Since general workers in the study population represented mainly clerical workers, they have lower social status in the organisation and they therefore experience more job insecurity.

T-tests were used to determine differences between the demographic variables like gender and qualifications in relationship to job insecurity. No differences were found between the levels of job insecurity of males and females. This result is supported by a South African study done by Buitendach, Oosthuyzen and van Wyk (2005) who found no relationship between gender and job insecurity. The fact that females and males are regarded as equal in the work situation could be a possible explanation for the finding that they experience the same level of job insecurity. The results do not support the findings of Kinnunen et al. (1999) who found higher levels of job insecurity among men. Hypothesis 5 which stated that males differ from females in their experience of job insecurity can therefore not be accepted.

No practically significant differences were found between the scores of candidates who are graduated and candidates who possess a Grade 10-12 qualification on job insecurity. This finding does not support the finding of Hartley et al. (1991) who found that respondents with higher levels of education experienced less job insecurity. Hypothesis 6 that stated that employees with different qualifications differ in their experience of job insecurity can therefore not be accepted.

The last objective was to determine whether job insecurity holds any predictive value with regard to self-efficacy, work locus of control and dispositional optimism when controlling for the influence of demographical variables. Biographical variables like gender and qualifications appear to hold predictive value with regard to job insecurity.

First the predictive value of job insecurity with regard to self-efficacy was analysed. Multiple regression analysis indicated that job insecurity holds predictive value with regard to gender and self-efficacy.

With reference to internal and external work locus of control it was found that job insecurity holds predicted with regard to internal and external work locus of control. The model was found to be practically significant of a medium effect (0,48).

Dispositional optimism also holds predictive value with regards to Job insecurity. Gender and dispositional optimism predicted 0,24% of the variance in job insecurity. The model was practically significant of a large effect (0,50).

Hypothesis 7 that stated that self-efficacy, work locus of control and dispositional optimism holds predictive value with regards to job insecurity can therefore be accepted.

RECOMMENDATIONS

This research examined the relationship between job insecurity as dependent variable and self-efficacy, work locus of control and dispositional optimism as independent variables. A definite relationship between job insecurity as dependent variable and self-efficacy, work locus of control and dispositional optimism exists as reported by this research. The influence of self-efficacy and dispositional optimism needs to be studied over longer time periods to determine the longitudinal effect of these constructs on job insecurity. Further research is also required to establish the effect of self-efficacy training as well as the stimulation of an internal work locus of control on job insecurity. Self-efficacy training and the stimulation of an internal work locus of control seems to be successful (Eden &

Aviram, 1993; Els, Linde & Rothmann, 2001; Olivier & Rothmann, 1999). The long-term effect of those training on job insecurity needs to be investigated to get a better understanding of the effect of work locus of control and self-efficacy on job insecurity.

With regard to selection of employees, research is necessary to determine how self-efficacy, work locus of control and dispositional could be measured in the selection of employees.

The stimulation of self-efficacy, work locus of control and dispositional optimism in self-development programmes of employees to improve well-ness should also be investigated.

Further research is required to shed light on the role of dispositional optimism on job insecurity. Can optimism be learned and what will its effect be on job insecurity? The effect of company culture was also evident as a factor that might have influenced job insecurity.

Questions that could be addressed by future research on job insecurity and the relationship between self-efficacy, work locus of control and dispositional optimism is firstly: can the attributes of self-efficacy, work locus of control and dispositional optimism be learned to such an extent that it has an effect on job insecurity, thus eliminating the negative effects of job insecurity? Secondly, how long will this effect last and should it be followed-up by periodical interventions strengthening the effect of these attributes?

Although this research indicated a relationship between job insecurity, self-efficacy, work locus of control and dispositional optimism, one of the limitations of this research is the use of a cross sectional design. This design implies only a once off measurement without considering the longitudinal influence of the different variables studied in this research.

A further limitation of this research is the low percentage of Black participants (18%) who hindered the possibility to test for construct equivalence and bias. According to Van

de Vijver and Leung (1997), construct equivalence and bias should be tested for when using measuring instruments in a multicultural society to determine possible sources of inappropriate comparisons across culture groups.

REFERENCES

- Antonovsky, A. (1979). *Health, stress and coping: New perspectives on mental and physical well-being*. San Francisco, CA: Jossey-Bass.
- Ashford, S. J., Lee, C., & Bobko, P. (1989). Content, causes and consequences of job insecurity: A theory-based measure and substantive test. *Academy of Management Journal*, 32, 803-829.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Borg, I., & Elizur, D. (1992). Job insecurity: Correlates, moderators and measurement. *International Journal of Manpower*, 13, 13-26.
- Bosman, J. (2005). *Job insecurity and wellness of employees in a government organisation*. Unpublished doctoral thesis, North-West University, Vaal Triangle Campus, South Africa.
- Bothma, A. C., & Schepers, J. M. (1997). The role of locus of control and achievement motivation in the work performance of black managers. *Journal of Industrial Psychology*, 23(3), 44-52.
- Buitendach, J. H., Oosthuizen, A., & Van Wyk, C. de. W. (2005). Predicting job insecurity from background variables. *South African Journal of Industrial Psychology*, 31(3), 70-78
- Burchell, B. J. (1999). The unequal distribution of job insecurity. *International Review of Applied Economics*, 13, 437-459.
- Burns, N., & Grove, S. K. (1993). *The practice of nursing research: Conduct, critique, and utilization* (2nd ed.). Philadelphia, PA: W. B. Saunders.
- Cassidy, T. (2000). Social background, achievement motivation, optimism and health: A longitudinal study. *Counselling Psychology Quarterly*, 13, 399-413.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7, 309-319.
- Coetzer, E. L., & Schepers, J. M. (1997). Die verband tussen lokus van beheer en die werkprestasie van swart bemerkers in die lewensversekeringsbedryf. *Tydskrif vir Bedryfsielkunde*, 32(1), 34-41.

- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Orlando, FLA: Academic Press.
- Dekker, S. W. A., & Schaufeli, W. B. (1995). The effects of job insecurity on psychological health and withdrawal: A longitudinal study. *Australian Psychologist*, 30, 57-63.
- De Witte, H. (1999). Job insecurity and psychological well-being: Review of the literature and exploration of some unresolved issues. *European Journal of Work and Organisational Psychology*, 8, 55-177.
- De Witte, H. (2000). Arbeidsethos en jobonzekerheid: Meting en gevolgen voor welzijn, tevredenheid en inzet op het werk. (Labour ethics and job insecurity: Measurement and consequences for well-being, satisfaction and labour input). In Bouwen, R., De Witte, K., De Witte, H., & Taillieu, T. (Eds.), *Van groep tot gemeenschap* (pp. 325-350). Liber Amicorum Prof. Dr. L. Lagrou. Leuven, Belgium: Garant.
- Ebert, S. A., Tucker, D. C., & Roth, D. L. (2002). Psychological resistance factors as predictors of general health status and physical symptoms reporting. *Psychology, Health & Medicine*, 7, 363-375.
- Elbert, J. E. (2002). *Job insecurity and psychological strengths of service workers in a Parastatal*. Unpublished master's dissertation, P U for CHE, Vanderbijlpark.
- Eden, D., & Aviram, A. (1993). Self-efficacy training to speed reemployment: Helping people to help themselves. *Journal of Applied Psychology*, 3, 352-360.
- Els, D. A., Linde, L. H., & Rothmann, S (2001). Die evaluering van 'n ontwikkelingsprogram gerig op werknemers se lokus van beheer. *Journal of Industrial Psychology*, 27(3), 24-29.
- Frese, M. (1985). Stress at work and psychosomatic complaints: A causal interpretation. *Journal of Applied Psychology*, 70, 314-328.
- Fugate, M., & Ashforth, B. E. (2003). Employability: The construct, its dimensions, and applications. *Academy of management proceedings*: j1-j6.
- Gallie, D., White, M., Cheng, Y., & Tomlinson M. (1998). *Restructuring the employment relationship*. Oxford, UK: Clarendon.
- Greenhalgh, L., & Rosenblatt Z. (1984). Job insecurity: Towards conceptual clarity. *Academy of Management Review*, 9, 438-448,

- Greenhalgh, L., & Sutton, R. (1991). Mapping the context. In J. Harley, D. Jackson, B. Klandermans & T. van Vuuren. , $d \geq 0,50$ (Eds), *Job insecurity: Coping with jobs at risk* (pp. 151-171). London: Sage.
- Hartley, J., Jacobson, D., Klandermans, B., & Van Vuuren, T. (1991). *Job insecurity: Coping with jobs at risk*. London: Sage.
- Hasan, N., & Power, T. G. (2002). Optimism and pessimism in children: A study of parenting correlates. *International Journal of Behavior Development*, 26, 185-191.
- Harju, B., & Bolen, L. M. (1998). The effects of optimism on coping and perceived quality of life of college students. *Journal of Social Behavior & Personality*, 13, 185-200.
- Heymans, D. R. (2002). *The relationship between job insecurity, job satisfaction and organisational commitment of maintenance workers in parastatal*. Unpublished master's dissertation, P U for CHE, Vanderbijlpark.
- Human, I. J. (2002). *Die verhouding tussen werksonsekerhied, koherensiesin, lokus van beheer en selfdoeltreffendheid by menslikehulpbronwerknemers in 'n finansiële instelling*. Unpublished master's dissertation, P U for CHE, Vanderbijlpark.
- Jackson, T., Weiss, K., & Lundquist, J. J. (2001). Does procrastination mediate the relationship between optimism and subsequent stress? *Journal of Social Behavior and Personality*, 16, 203-213.
- Katz, D., & Kahn, R. (1978). *The social psychology of organizations*. New York: Wiley.
- Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioral research*. Orlando FLA: Harcourt Publishers.
- Kinnunen, U., Mauno, S., Nätti, J., & Happonen, M. (1999). Perceived job insecurity: A longitudinal study among Finnish employees. *European Journal of Work and Organisational Psychology*, 8, 243-260.
- Labuschagne, M., Bosman, J., & Buitendach, J. H. (2005). Job insecurity, job satisfaction and work locus of control of employees in a government organisation. *SA Journal of Human Resources Management*, 3, 26-35.

- Le Roux, C. A., Schmidt, C., & Schepers, J. M. (1997). Achievement motivation, locus of control and individuality as predictors of participative management in the South African educational environment. *South African Journal of Industrial Psychology*, 23(3), 1–8.
- Mauno, S., & Kinnunen, U. (1999). Job insecurity and well-being: A longitudinal study among male and female employees in Finland. *Community, Work & Family*, 2, 147-171.
- Moeletsi, M. M (2003). *Psychological empowerment, job satisfaction, organisational commitment, and job insecurity in divisions of a packing organisation*. Unpublished master's dissertation, P U for CHE, Vanderbijlpark.
- Mohr, G. (2000). The changing significance of different stressors after the announcement of bankruptcy: A longitudinal investigation with special emphasis on job insecurity. *Journal of Organizational Behaviour*, 21, 337-359.
- Moses, B. (1998). *Careerintelligence*. San Francisco, CA: Berrett-Koehler Publishers.
- Näswall, K., & De Witte, H. (2003). Who feels insecure in Europe? Predicting job insecurity from background variables. *Economic and Industrial Democracy*, 24, 189-215.
- Nunnally, J. C., & Bernstein, J. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Olivier, M. J. C., & Rothmann, S. (1999). The stimulation of an internal locus of control in employees in a manufacturing industry. *South African Journal of Economic & Management Science*, 2, 476-491.
- Pretorius, M., & Rothmann, S. (2001). Die verband tussen koherensiesin, lokus van beheer, selfdoeltreffendheid en werkstevredenheid. *South African Journal of Industrial Psychology*, 279(1), 25-31.
- Reisel, W. D. (1998) A model of the antecedents and consequences of job insecurity. *Dissertation Abstracts International Section A: Humanities & Social Sciences*, 58, 3613.
- Robbins, S. P. (2001). *Organizational behavior*. Englewood Cliffs, NJ: Prentice Hall.

- Rothmann, S., & Van Rensburg, P. (8-11 May 2001). *Suicide ideation in the South African Police Services*. Paper presented at the 10th European Congress on Work and Organisation Psychology, Prague, Czech Republic.
- Salter, K. M. (1999). Job insecurity and its antecedents. *The Science and Engineering*, 58, 6508.
- SAS Institute. (2002). *The SAS system for Windows: Release 8.01*. Cary, NC: SAS Institute Inc.
- Sauer, D. F. (2003). *Psychological empowerment, leadership empowerment behaviour and job insecurity in a Steel-manufacturing environment*. Unpublished Master's dissertation, North-West University, Vaal Triangle Campus, South Africa.
- Schaufeli, W. B. (1992). *Unemployment and mental health in well and poorly educated school leavers*. in C. Verhaar & L. Jansma (eds). *On the mysteries of unemployment: Causes, consequences and policies* (pp. 253-271). Dordrecht, The Netherlands: Kluwer.
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self mastery, and self esteem): A reevaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, 67, 1063-1078.
- Scheier, M. F., Weintraub, J. K., & Carver, C. S. (1986). Coping with stress: Divergent strategies of optimists and pessimists. *Journal of Personality and Social Psychology*, 51, 1257-1264.
- Soehnlein, K. M. (1998). The relationship of job insecurity, career planning, and goal orientation and the self development of survivors in a downsizing corporation. *Humanities and Social Science*, 59, 5A, 1436.
- Spector, P. E. (1982). Behavior in organizations as a function of locus of control. *Psychological Bulletin*, 91, 428-497.
- Spector, P. E. (1988). Development of the work locus of control scale. *Journal of Occupational Psychology*, 61, 335-340.
- SPSS (2003). *SPSS 12.0 for windows*. Chicago, IL: SPSS Incorporated.
- Steyn, H. S. (1999). *Praktiese betekenisvolheid: Die gebruik van effekgroottes*. Wetenskaplike bydraes-Reeks B: Natuurwetenskappe Nr.117. Potchefstroom: PU vir CHO.

- Strümpfer, D. J. W. (1995). The origins of health and strength: From salutogenesis to fortigenesis. *South African Journal of Psychology*, 25, 81-89.
- Sverke, M., & Hellgren, J. (2002). The nature of job insecurity: Understanding employment uncertainty on the brink of a new millennium. *Applied Psychology*, 51, 23-42.
- Sverke, M., Hellgren, J., Näswall, K., Chirumbolo, A., De Witte, H., & Goslinga, S. (2001). *European unions in the wake of flexible production: Technical report on the data set used in a SALTSA Project report 2001:1*. Stockholm: National institute of working life and SALTSA.
- Sverke, M., Hellgren, J., Näswall, K., Chirumbolo, A., De Witte, H., & Goslinga, S. (2004). *Job insecurity and union membership: European unions in the wake of flexible production*. Brussels: P. I. E.-Peter Lang.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston, MA: Allyn & Bacon.
- Tipton, R. M., & Worthington, E. L. (1984). The measurement of generalized self-efficacy: A case study of construct validity. *Journal of Personality Assessment*, 48, 545-548.
- Van de Vijver, F., & Leung, K. (1997). *Methods and data analysis for cross-cultural research*. Thousands Oaks, CA: Sage.
- Van Vuuren, T. (1990). *Met ontslag bedreigd. Werknemers in onzekerheid over hun arbeidsplaats bij veranderingen in de organisatie*. (Threatened with retrenchment. Job insecurity among workers during organisational change). Amsterdam: VU Uitgeverij.
- Warr, P. (1987). *Work, unemployment and mental health*. Oxford: Clarendon Press.

CHAPTER 4

ARTICLE 3

THE RELATIONSHIP BETWEEN JOB INSECURITY AND FUTURE LITERACY

A. S. Bothma

J. H. Buitendach

Research Unit for People, Policy & Performance, North-West University, Vaal Triangle Campus, South Africa.

ABSTRACT

The purpose of this research was to investigate the relationship between job insecurity and future literacy. A cross-sectional design with an availability sample ($n = 459$) was used. The Job Insecurity Questionnaire (JIQ), a biographical questionnaire and a Future Literacy Questionnaire (FLQ) were administered. Job insecurity correlated negatively with future literacy, indicating that as future literacy increases job insecurity decreases. Participants who experienced high levels of future literacy experienced statistically significantly lower levels of job insecurity. A multiple regression analysis (while controlling for the influence of background variables) indicated that future literacy hold predictive value with regard to job insecurity.

OPSOMMING

Die doel van hierdie navorsing was om verwantskap tussen werksonsekerheid en toekomsgeletterdheid ondersoek. Die ondersoekgroep het bestaan uit 'n beskikbaarheidsteekproef ($n = 459$). 'n Dwarsnee opname-ontwerp is gebruik. Die Werksonsekerheidsvraelys (JIQ), 'n biografiese vraelys en 'n vraelys oor Toekomsgeletterdheid (FLQ) is afgeneem. Werksonsekerheid het negatief met toekomsgeletterdheid gekorreleer, wat daarop dui dat soos wat toekomsgeletterdheid toeneem, werksonsekerheid afneem. Deelnemers wat hoë vlakke op toekomsgeletterdheid getoon het, het statisties betekenisvolle laer vlakke werksonsekerheid ervaar. Meervoudige regressieanalise (terwyl daar gekontroleer is vir die invloed van demografiese veranderlikes) het aangetoon dat toekomsgeletterdheid voorspellingswaarde inhou vir werksonsekerheid.

The changing world of work, as well as the new economy, has an enormous impact on the well-ness of employees (De Witte, 1999). Due to the emphasis on better performance, competitiveness and the effect of globalism, companies embark on massive cost saving activities. The latter results in large-scale workforce reductions, outsourcing, job insecurity and unemployment (Moses, 1998).

Another major change in the economic and social environment, which has a considerable influence on the world of work, is the shift from the industrial era to the information or knowledge era. The majority of workers in the developed world today are employed in the services sector. In the United States of America and Britain, roughly 73% of the labour force is employed in the services sector (Roux, 2002). Moses (1998) states that the economic transformation from production to information is displacing millions of workers. Employment opportunities in the primary production industries have been declining during the last century (Considine, 2001). Successful integration in the global economy demands a massive investment in knowledge management. This prerequisite necessitates a considerable investment in human skills.

Handy (2001) states that by 2000 fulltime employment in Britain had decreased to only 40% of the population. The permanent relationship (fulltime employment) between employer and employee that usually lead to retirement has changed to a temporary or contractual relationship (Handy, 2001; Moses, 1998). In Australia, in 1983 less than one in six workers were employed on contractual basis but by 1994 this figure had risen to one in four workers (Considine, 2001). Micro-organisations are becoming the organisations of the future. In Britain the so-called micro-enterprises employing less than five people make up 89% of all businesses. This means that only 11% of businesses in Britain employ more than five people (Handy, 2001).

The proportion of people engaged in the informal sector may be as high as 31,4% (Roux, 2002). The economic environment in South Africa has changed dramatically during the last 10 years due to increased globalisation. Globalisation has forced companies to compete with the best in the world, which lead to fierce competition, cost savings and

reduction of the labour force. The once stable, predictable, and controlled environment has become complex, out of control and unpredictable (Boëttger & Dippenaar, 2002; Moses, 1998). The pace of change has also increased dramatically. Change in South Africa over the last 10 years was not only limited to the economical environment but also included political change. It is the opinion of the researcher that the political change in South Africa is still in the introduction phase as Black Economic Empowerment is gaining momentum. The economical and political changes as well as the shrinking labour market lead to increased job insecurity (Moses, 1998; Roux, 2002).

Boëttger and Dippenaar (2002) stated that employees experience contextual disintegration when the pace of change exceeds their ability to successful adaptation and assimilation of the changed situation. Boëttger and Dippenaar (2002, p. 27) define contextual disintegration as when "the meaningfulness of operational models, structures and rules to a specific business environment ceases to be relevant when that environment changes completely". To avoid contextual disintegration employees must be repositioned (cognitive repositioning) in terms of the new world of work. According to Roux (2002), anticipation of the future improves individuals' prospects for survival. It will at least limit the experience of contextual disintegration. Although future planning is very difficult due to turbulence and uncertainty, it could expand people's insight and understanding to cope with a wide variety of future possibilities (Roux, 2002).

The effects of the changing world of work, globalisation, the demand for better performance, competitiveness, mergers and acquisitions, outsourcing and job losses will increase job insecurity in the workplace (De Witte, 1999; Moses 1998). Higher production targets with less manpower combined with the constant threat of job loss will eventually take its toll on the psychological well-being of employees (Sverke & Hellgren, 2002). According to Moses (1998) work rules has changed so much that workers have lost their sense of protection. In the past organisations provided a sense of security, belonging to something bigger than oneself, identification with people that are like-minded and working for a common purpose that install pride and meaningfulness (Moses, 1998). The changing world of work has a dramatic negative impact on job insecurity.

The changing world of work has a significant influence on the amount of job insecurity that individuals experience (Ashford, Lee & Bobko, 1989; Considine, 2000; Cooper, 1999; Kinnunen, Mauno, Nätti & Happonen, 1999; Petzall, Parker & Stoeberl, 2000; Wolter, 1998). The negative effect of job insecurity on organisations necessitates research about factors that could decrease the negative effect of job insecurity. Future literacy focuses on the creation of a new mindset about adapting in the changing world of work. According to Moses (1998), the solution does not lie in working harder, faster or more effectively but a total repositioning to understanding the changing world of work. The mindset in the new workplace is that job security is located within the skills and competencies of individuals rather than in the structures of the organisation. Organisations will utilise the skills and competencies of individuals as long as they need them. This new mindset is about placing security in own capabilities rather than having security in organisations. This implies that individuals must prepare themselves by developing new capabilities and skills for constant adaptation in the new world of work. If future literacy training could create such a mindset, it will have a dramatic impact on the effect of job insecurity. In this research, the relationship between job insecurity and future literacy was investigated to determine if future literacy had a relationship with job insecurity.

Literacy is usually conceptualised in terms of specific skills for individuals like reading and writing, personal finance and supervisory skills. The Organisation for Economic Cooperation and Development (OECD, 1997 cited by Mawer, 1999) refers to functional illiteracy where individuals are unable to participate fully in the economic and civil life of today's advanced nations. Mawer (1999) argues that basic skills required in the past were the three r's: reading, writing and (a)rithmetic. Due to the changing world of work, the basic skills required of individuals have been greatly extended to include a variety of skills. Mawer (1999) stipulates that skills like analysing information, oral communication, problem solving, creative thinking, goal setting, interpersonal skills, negotiation, using technology, organisational effectiveness and leadership are essential in the changing world of work. Surveys in organisations revealed that the workforce is ill-prepared in terms of the basic or fundamental skills described above (Mawer, 1999).

The researcher defines future literacy as a future orientation in the sense that a person understands the changing world of work, its implications on work and personal life, as well as the formulation of strategies to adapt and thrive in the changing world of work. No research was found on the concept of future literacy as portrayed in this study.

Based on the work of Boëttger and Dippenaar (2002) and Moses (1998), future literate individuals can be described as individuals displaying the following characteristics: they can adapt to changing circumstances. They have a tendency to anticipate future changes and prepare for it (pro-active individuals). They possess higher levels of self-efficacy in the sense that they have the confidence to perform a variety of tasks successfully. They have an internal work locus of control by taking personal responsibility for the outcome of situations. They are financially literate by striving for financial independence. Future literate individuals know that it is not wise to depend on organisations for financial security. They practice lifelong learning by utilising every opportunity to learn new skills. They have short and long term goals that they actively pursue.

No research could be found on the relationship between future literacy and job insecurity. However, it seems that no research is available on aspects that are related to future literacy like employability, job safeguards, financial security and qualifications.

Van Vuuren (1990) defines job insecurity as a multidimensional construct that includes three major elements. It is a subjective perception that varies from person to person; it implies uncertainty about the long-term future and the continuance of a job. With reference to the multidimensional definition Kinnunen et al. (1999) argue that job insecurity is a function of objective circumstances as well as personal attributes and therefore a multidimensional definition is appropriate. According to Kinnunen et al. (1999) job insecurity is not only limited to uncertain environments or organisations, but may appear in seemingly secure environments. Furthermore the population that experiences job insecurity is usually larger than the workers who actually lose their jobs. Greenhalgh and Rosenblatt (1984) perceive job insecurity as multidimensional consisting of five components; including the quantity of features that are threatened, the relative

importance of the job features that are threatened, the perceived threat of various changes that might impact negatively, importance of the combined effect of the threats named above and powerlessness. Sverke, Hellgren, Näswall, Chirumbolo, De Witte and Goslinga (2004) state that job insecurity is also a subjective perception and is perceived in different ways by people; depending on their specific circumstances.

Van Vuuren, Klandermans, Jacobson and Hartley (1991), found that safeguards (protection from possible job loss; like financial security and employability) lessen the experience the job insecurity. Qualifications (Hellgren & Sverke, 2003; Frese, 1985), financial security (Kinnunen & Nätti, 1994) and employability of employees (Fugate & Ashforth, 2003; Gallie, White, Cheng & Tomlinson, 1998; Sverke & Hellgren, 2002) also influence the experience of job insecurity. The absence of these factors will make employees more vulnerable for the effects of job insecurity. Where the above-mentioned factors are secure, employees will experience less job insecurity (Van Vuuren et al., 1991). These factors mentioned by Van Vuuren et al. (1991) include important aspects of future literacy and reinforce the hypothesis that future literacy has an impact on the way employees experience job insecurity.

This research was undertaken at a large financial institution in South Africa that was recently restructured. The restructuring process might have resulted in increasing job insecurity. The organisation embarked on a future literacy-training programme for all their employees. An important research question is whether future literate individuals experience less job insecurity compared with candidates who are less future literate. The research question is also very important from the perspective of future literacy training. If there is a relationship between future literacy and job insecurity it could be proposed that future literacy training might help to decrease job insecurity.

Aims and hypothesis

The general aim of this research was to assess the relationship between job insecurity and future literacy. The specific hypothesis can be formulated as follows:

H₁: There is a practically significant relationship between future literacy and job insecurity.

H₂: Future literacy holds predictive value with regard to job insecurity.

RESEARCH DESIGN

Research approach

A cross-sectional design (Burns & Grove, 1993) was used for this study. Cross-sectional designs are appropriate where groups of subjects at various stages of development are studied simultaneously, whereas the survey technique of data collection gathers information from the target population by means of questionnaires (Burns & Grove, 1993).

Participants

An availability sample ($n = 459$) was used. The sample was subjected to a specific programme of future literacy (Map Your Life) training. Questionnaires were completed prior to the training programme. Table 1 contains the characteristics of the participants.

Table I

Characteristics of the Participants

Item	Category	Frequency	Percentage
Gender	Male	231	51%
	Female	221	49%
Race	Black	80	18%
	White	352	82%
Age groups	24-35 years	128	28%
	36-45 years	172	38%
	46-56 years and older	153	34%
Qualifications	Grade 10-12	243	54%
	Diploma or Degree	209	46%
Work category	Management	52	12%
	Specialist	158	35%
	Administrative	237	53%
Region	Pretoria	270	59%
	Port Elizabeth	127	28%
	Vaal Triangle	62	14%

As indicated in Table I the majority of the participants were White (82%), between the ages of 36-45 years (38%), administrative workers (53%) and came from the Pretoria (58%) region. Most participants (54%) had Grade 10-12 whereas 46% had tertiary qualifications.

Measuring instruments

Future Literacy (FLQ). The Future Literacy Questionnaire developed by Bothma (in press) was used to measure future literacy. The questionnaire consists of two scales; Positive Mindset Towards Future Possibilities (PM) and Anticipating, Planning and Preparing for Future Changes (AP). The questionnaire is arranged along a 4 point scale; one being strongly disagree and four strongly agree. The Cronbach alpha for the PM scale; was 0,76 and 0,81 for the AP scale. The Cronbach alpha for the total score of the FLQ was 0,86 which adheres to the 0,70 cut-off point as set by Nunnally and Bernstein (1994). Typical items in the PM scale are: "There are a lot of opportunities in the new

South Africa", "Companies don't expect loyalty anymore, only results" and "I feel positive about my abilities to handle future changes". Examples of items in the AP scale are: "I have a written plan for my life", "I anticipate future changes and prepare myself for it," "I have a plan in place if I should lose my job" and "I use every opportunity to learn new things".

The Job Insecurity Questionnaire (JIQ) that was developed by De Witte (2000) was used to measure job insecurity. The questionnaire consists of 11 items arranged along a 5-point Likert type scale. The JIQ measures cognitive job insecurity and affective job insecurity. Cognitive job insecurity refers to the possibility of becoming unemployed while affective job insecurity refers to the emotional experience of the possible threatening situation. A typical item about cognitive job insecurity is: "I am worried about keeping my job". An example of a item about affective job insecurity is "I feel insecure about the future of my job". De Witte (2000) reported a Cronbach alpha coefficient of 0,92 for total score of job insecurity, 0,90 for the cognitive job insecurity and 0,85 for affective job insecurity. Heymans (2002) obtained an alpha coefficient of 0,81 for the total score of job insecurity, 0,64 for cognitive insecurity and 0,85 for affective insecurity. Moeletsi (2003) also reported an alpha coefficient of 0,93 for the total score, 0,86 for affective insecurity and 0,91 for cognitive insecurity. Bosman, (2005) reported a Cronbach alpha coefficient of 0,70 for the cognitive job insecurity and 0,72 for affective job insecurity.

Statistical analysis of the data

The data analysis was carried out with the help of the the SAS-program (SAS Institute, 2002) and the SPSS-programe (SPSS, 2003). These programmes were used to carry out the statistical analysis regarding the reliability, of the measuring instruments, descriptive statistics, t-tests, analysis of variance and correlation coefficients. Descriptive statistics (e.g. means, standard deviations, range, skewness and kurtosis) and inferential statistics were used to analyse the data.

The product moment correlation coefficient was used to determine the way in which one variable relates to another variable. According to Cohen (1988) the following cut-off points are recognised as practically significant:

$r \geq 0,30$ medium effect

$r \geq 0,50$ large effect

Values larger than $r \geq 0,30$ will be regarded as practically significant for the purposes of this research.

Exploratory and confirmatory factor analysis was used to determine the number of factors for the Job Insecurity questionnaire as well as the loading of items on the specific factors. Factor loadings lower than 0,45 was regarded as insignificant.

Multiple regression analysis, controlling for the influence of background variables, was conducted to determine the whether job insecurity holds predictive value with regard to future literacy.

RESULTS

First, simple principal components analysis were performed on the Job Insecurity Questionnaire. The results are presented in Table 2.

Table 2

Principal Components Matrix of the Job Insecurity Questionnaire

Job Insecurity Questionnaire (JIQ)	Components loadings
1 I am afraid that I will be dismissed/get fired	-0.79
2 I am worried about keeping my job	-0.83
3 I fear I will lose my job	-0.87
4 The fact that I might become unemployed frightens me	-0.66
5 I feel insecure about the future of my job	-0.83
6 The chance that I will be dismissed is small (R)*	-0.43
7 I think that I might be retrenched in the near future	-0.73
8 Chances are that I might soon lose my job	-0.79
9 I think I can continue working for my organisation (R)*	-0.58
10 I am sure I can keep my job (R)*	-0.70
11 I feel secure about my job (R)*	-0.76

*(R) - items were reversed prior to conducting the statistical analysis

According to Table 2 the factors did not load as described by De Witte (2000). Most items that form part of affective job insecurity (Factor 2) loaded on cognitive job insecurity (Factor 1). Most items loaded sufficiently (higher than 0,50) with the exception of item 6 which had a loading of 0,43. Although De Witte (2000) indicated that the JIQ consists out of two factors, namely cognitive job and affective job insecurity the scree plot as well as the eigenvalue of the Job Insecurity Questionnaire are higher than 1, indicating that one factor could be extracted. One factor explained 45% of the total variance of the questionnaire. These results are supported by the findings of Bosman (2005) who reported a good fit of the Job Insecurity Questionnaire data to a unidimensional model. It was decided to use only the total score of the questionnaire.

In Table 3 the reliability of the Future Literacy Questionnaire and the Job Insecurity Questionnaire is presented.

Table 3

Descriptive Statistics of the Future Literacy Questionnaire and the Job Insecurity Questionnaire

Factor	<i>n</i>	Mean	SD	Mean inter-item <i>r</i>	Skewness	Kurtosis	α
Future Literacy: Factor 1. Positive Mindset Towards Future Possibilities (PM)	451	31,75	4,04	0,27	0,00	-0,62	0,76
Future Literacy: Factor 2. Anticipating, Planning and Preparing for Future Changes (AP)	451	23,32	3,61	0,35	0,19	0,06	0,81
Job Insecurity Total	455	2,45	1,82	0,50	0,26	-0,37	0,91

The Cronbach alpha coefficients for the PM scale was 0,76 and 0,81 for the AP scale. Cronbach alpha coefficients need to be higher than 0,70 (Nunnally & Bernstein, 1994). The mean inter-item correlations for the two factors of the Future Literacy Questionnaire is in line with the guidelines of > 0,15 and < 0,50 (Clark & Watson, 1995). The inter-item correlations of the Job Insecurity Questionnaire are within the guidelines of > 0,15 and < 0,50 (Clark & Watson, 1995). The Cronbach alpha coefficient for job insecurity was 0,91. The psychometric properties of the two questionnaires make them appropriate to use. The skewness and kurtosis in Table 3 indicate a normal distribution. The correlations between future literacy and job insecurity is presented in Table 4.

Table 4

Correlations Between Future Literacy and Job Insecurity

	Positive Mindset Towards Future Possibilities (PM)	Anticipating, Planning and Preparing for Future Changes (AP)	Future Literacy Total
Job Insecurity Total	-0,41 +*	-0,37 +*	-0,44 +*

+ The above correlations are significantly at $p < ,05$

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

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

The results in Table 4 indicated a statistically significant as well as a practically significant correlation (medium effect -0,44) between job insecurity and future literacy. This implies that as future literacy increases job insecurity decreases. The negative correlation between future literacy and job insecurity indicate that candidates who are future literate experience less job insecurity.

There are currently no norms are available for the future literacy questionnaire. To determine high and low scores the researcher allocated marks to the responses on the different items. One mark was allocated for each response on strongly disagree, 2 marks for each response on disagree, 3 marks for each response on agree and 4 marks for each response on strongly agree. Although this study found the Future Literacy Questionnaire to be reliable more research focussing on the reliability and validity of the Questionnaire in a variety of organisational settings in South Africa is required. Norms need to be developed for a variety of occupational groups, professions, organisations and industries. Categories to determine low and high scores are presented in Table 6.

Table 5

Interpretation of the Future Literacy Scores

Interpretation	Scores
Low	18 – 35
Below average	36 – 44
Average	45 – 50
Above average	51 – 61
High	62 – 72

To determine differences between high and low levels of future literacy for the purposes of t-tests, scores of 45 and lower were regarded as low. Scores of 46 and higher were regarded as high. Results of t-tests regarding differences between high and low levels of future literacy with reference to job insecurity is presented in Table 6.

Table 6

Results of t-tests Regarding Job Insecurity and Future Literacy: Significant Differences

	Low future literacy		High future literacy		Values		
	Mean	Std Dev	Mean	Std Dev	t-Value	p-Value	Cohen's d
Job Insecurity	3,32	0,77	2,29	0,80	6,22	0,000+	1,29**

+ The difference is statistically significant $p < 0,01$. The following cut-off points are recognised:

* $\geq 0,50$ medium effect

** $\geq 0,80$ large effect

The results revealed that practically significant differences well as statistically significant differences of a large effect (0,80), (Cohen, 1988) existed between candidates that scored high and low on future literacy. Candidates that scored high on future literacy experience significantly less job insecurity when compared with candidates that scored low on future literacy. Future literacy made a difference in the occurrence of job insecurity. Next, regression analysis was done to determine whether future literacy holds any predictive value with regard to job insecurity. The results are presented in Table 7.

Table 7

Regression Analysis Job Insecurity, Demographic Variables and Future Literacy Factor 1: Positive Mindset Towards Future Possibilities (PM) and Factor 2: Anticipating, Planning and Preparing for Future Changes (AP)

ANALYSIS OF VARIANCE					
Model 1: Demographic variables					
<i>R</i> : 0,25	Source of variation	<i>df</i>	Sum of	Mean Square	
<i>R</i> ² : 0,06			squares		
Adjusted <i>R</i> ² : 0,52	Regression	5	3,65	3,65	
Standard Error: 0,80	Residual	419	0,64	0,64	
	<i>F</i> = 5,63 <i>p</i> = 0,000				
Model 2: Demographic variables and future literacy Factor 1 and Factor 2					
<i>R</i> : 0,48	Source of variation	<i>df</i>	Sum of	Mean Square	
<i>R</i> ² : 0,23			squares		
Adjusted <i>R</i> ² : 0,22	Regression	7	8,49	8,49	
Standard Error: 0,70	Residual	416	0,48	0,48	
	<i>F</i> = 17,63 <i>p</i> = 0,000				
VARIABLES IN THE EQUATION					
INDEPENDENT VARIABLES	B	SEB	Beta	<i>t</i>	<i>p</i>
Gender	0,28	0,05	0,17	-3,33	0,000+
Race	0,09	0,05	0,04	0,87	0,381
Age	-0,07	0,05	-0,07	-0,54	0,124
Qualification	0,16	0,05	0,10	-2,04	0,041+
Work category	-0,00	0,05	-0,00	-0,08	0,935
Gender	0,23	0,05	0,14	3,10	0,001+
Race	-0,18	0,05	-0,09	-1,97	0,048+
Age	-0,02	0,04	-0,02	-0,51	0,605
Qualification	-0,07	0,05	-0,07	-1,64	0,101
Work category	-0,65	0,05	-0,06	-1,41	0,157
Future literacy Factor 1 (PM)	-0,65	0,05	-0,33	-6,05	0,000+
Future literacy Factor 2 (AP)	-0,22	0,05	-0,12	-2,33	0,019+

+ Statistically significant $p < 0,01$

The regression analysis in Table 7 indicated that gender and qualifications predicted 52% of the variance in job insecurity. The model was not practically significant (0,25). When future literacy Factor 1 and Factor 2 was added the effect of qualifications disappeared

while race, gender and future literacy predicted 22% of the variance in job insecurity. The model was practically significant of a medium effect (0,48).

DISCUSSION

The objective of this research was to investigate the relationship between job insecurity and future literacy. The relevance of job insecurity in a changing world of work is growing as research has demonstrated evidence of the negative effect of job insecurity on the well-being of workers (De Witte, 2002). Research on the factors that are related to, and influence job insecurity are necessary to get a better understanding of the dynamics of job insecurity. Future literacy is an unknown concept, as no research has been done on this concept or on the influence of future literacy on job insecurity.

First, simple principal components analysis was performed on the Job Insecurity Questionnaire. The scree plot as well as the eigenvalue of the Job Insecurity Questionnaire (is higher than 1) indicate that one factor could be extracted. These results are supported by the findings of Bosman (2005) who reported a good fit of the Job Insecurity Questionnaire data to a unidimensional model. The researcher decided to use only the total score of the Job Insecurity Questionnaire.

The future Literacy Questionnaire developed by Bothma (in press) was used to measure future literacy. Next, the Cronbach alpha coefficients for the questionnaires were determined. In terms of the Future Literacy Questionnaire, Factor one (Positive Mindset Towards Future Possibilities PM) reported a Cronbach alpha coefficient of 0,76 and Factor two (Anticipating, Planning and Preparing for Future Changes AP) a Cronbach alpha coefficient of 0,81. The Cronbach alpha coefficient for the Job Insecurity Questionnaire was 0,91. Cronbach alpha coefficients needed to be higher than 0,70 (Nunnally & Bernstein, 1994) to indicate acceptable reliability.

With reference to the correlation between job insecurity and future literacy a practically significant negative correlation (medium effect) between job insecurity and future literacy was found. This implies that as job insecurity decreases future literacy increases. Participants with a positive mindset towards future possibilities (Factor 1 PM) who also anticipate, plan and prepare for future changes (Factor 2 AP) experience less job insecurity (medium effect). This finding is in line with the definition of future literacy. Future literate individuals do not depend on organisations to provide job security. They know that security is located in their skills and competencies rather than in organisational structures. The researcher has defined future literacy as a future orientation in the sense that a person understands the changing world of work, its implications on work and personal life. It also includes the formulation of strategies to adapt and thrive in the changing world of work. Participants that are future literate and therefore possess an understanding of the changing world of work and prepare themselves to adapt, experience lower levels of job insecurity.

The differences between participants that experienced high levels of future literacy were compared with participants that experience low levels of future literacy. Participants who scored low on all the scales of future literacy experienced job insecurity. The results revealed that significant differences of a large effect (0,80) (Cohen, 1988) existed between candidates that scored high and low on future literacy. An important feature of future literacy is that security is located within the skills and competencies of individuals rather than in the organisation (Boëttger & Dippenaar, 2002; Moses, 1998). The new mindset in the changing world of work is that organisations will utilise the skills and competencies of individuals as long as they need them. This mindset will have a dramatic impact on the level of job insecurity experienced as illustrated by the negative correlation between job insecurity and future literacy. The results indicate that future literate participants had adopted the new mindset to place their security in their own skills and competencies and therefore they experience less job insecurity. Hypothesis 1, that stated that a correlation exists between job insecurity and future literacy, can therefore be accepted.

Future literate individuals can be described as individuals displaying the following characteristics (Boëttger & Dippenaar, 2002; Moses, 1998): They can adapt to changing circumstances. They have a tendency to anticipate future changes and prepare for it (pro-active individuals). They possess higher levels of self-efficacy in the sense that they have the confidence to perform a variety of tasks successfully. They have an internal locus of control by taking personal responsibility for the outcome of situations. They are financially literate by striving for financial independence. Future literate individuals know that it is not wise to depend on organisations for financial security. They practice lifelong learning by utilising every opportunity to learn new skills. They have short and long- term goals that they actively pursue. Analysing the characteristics above indicate that future literate individuals should adapt better to the changing world of work. These findings are in line with the research of Van Vuuren et al. (1991) who found that aspects like safeguards (protection from possible job loss), financial security (Kinnunen & Nätti, 1999) and employability of employees (Gallie et al, 1998; Fugate & Ashforth, 2003; Sverke & Hellgren, 2002) influenced the experience of job insecurity.

A multiple regression analysis, controlling for background variables was conducted to determine whether future literacy Factor 1 and Factor 2 could predict job insecurity. Future literacy Factor 1 and Factor 2, race and gender predicted 22% of the variance in job insecurity. The model was practically significant of a medium effect (0,48). Hypothesis 2, which stated that future literacy predicts job insecurity, could therefore be accepted.

In conclusion this research indicated that future literate candidates who scored high on future literacy experienced significantly lower job insecurity. This research is only the first step in understanding the role of future literacy in job insecurity. We now know that high scores on future literacy are associated with low job insecurity and vice versa.

RECOMMENDATIONS

The negative effect of job insecurity on the organisation as well as the effect on the psychological well-being of workers make research about the construct of future literacy essential. What is the solution to job insecurity and does the answer lie within the organisational context or should the individual be held responsible to seek a solution? If the answer lies with the individual then future literacy has a definite place as a method to influence the experience of job insecurity. In the organisational milieu it is important that organisations become aware of future literacy as a possibility to reduce job insecurity, as well as their role in providing future literacy training. Future literacy and future literacy training try to create a new mindset about job insecurity. It encompasses a new paradigm about the career that has changed from a permanent to temporary and contractual assignment with numerous employers over a life span. Future literacy places emphasises placing security for survival on one's own abilities and creating opportunities (sometimes outside the organisational context) rather than having security in organisations. An important research question about future literacy is: how did candidates who scored high on the questionnaire become future literate?

The influence of future literacy on job insecurity needs to be studied over longer periods of time to determine the longitudinal effect of future literacy on job insecurity. What will the effect of future literacy training be on job insecurity? Will it be temporary or relatively permanent? It is also recommended that the effect of future literacy training be studied over longer periods to determine the effect of this intervention. The relationship between the antecedents of job insecurity and future literacy needs to be researched further to shed light on the influence of future literacy on job insecurity.

The use of a cross-sectional design is a limitation of this research. The effect of future literacy on job insecurity was only measured once without a follow up.

A further limitation of this research is the low percentage of Black employees who hindered the possibility to test for construct equivalence and bias. According to Van de

Vijver and Leung (1997), construct equivalence and bias should be tested for instruments used in a multicultural society to determine possible sources of inappropriate comparisons across culture groups. Due to the low percentage of Blacks (18%) it was not possible to test for construct equivalence and bias.

REFERENCES

- Ashford, S. J., Lee C., & Bobko, P. (1989). Content, causes and consequences of job insecurity: A theory-based measure and substantive test. *Academy of Management Journal*, 32, 803-829.
- Boëttger, J., & Dippenaar, H. (2002). *Inspirational leadership through visual knowledge management*. Johannesburg: Jacana Publishers.
- Bosman, J. (2005). *Job insecurity and wellness of employees in a government organisation*. Unpublished doctoral thesis, North-West University, Vaal Triangle Campus, South Africa.
- Bothma, A. S. (in press).
- Burns, N., & Grove, S. K. (1993). *The practice of nursing research: Conduct, critique, and utilization* (2nd ed.). Philadelphia, PA: W.B. Saunders.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7, 309-319.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Orlando, FLA: Academic Press.
- Considine, J. (2001). The changing nature of work. *Business Date*, 9, 1-5.
- Cooper, C. L. (1999). Can we live with the changing nature of work? *Journal of Managerial Psychology*, 14, 569-572.
- De Witte, H. (1999). Job insecurity and psychological well-being: Review of the literature and exploration of some unresolved issues. *European Journal of Work and Organisational Psychology*, 8, 155-177.
- De Witte, H. (2000). Arbeidsethos en jobonzekerheid: Meting en gevolgen voor welzijn, tevredenheid en inzet op het werk. (Labour ethics and job insecurity: Measurement and consequences for well-being, satisfaction and labour input). In Bouwen, R., De Witte, K., De Witte, H., & Taillieu, T. (Eds.), *Van groep tot gemeenschap* (pp. 325-350). Liber Amicorum Prof. Dr. L. Lagrou. Leuven, Belgium: Garant.
- Frese, M. (1985). Stress at work and psychosomatic complaints: A causal interpretation. *Journal of Applied Psychology*, 70, 314-328.
- Fugate, M., & Ashforth, B. E. (2003). Employability: The construct, its dimensions, and applications. *Academy of management proceedings*: j1-j6.

- Gallie, D., White, M., Cheng, Y., & Tomlinson M. (1998). *Restructuring the employment relationship*. Oxford, UK: Clarendon.
- Greenhalgh, L. & Rosenblatt Z. (1984). Job insecurity: Towards conceptual clarity. *Academy of Management Review*, 9, 438-448,
- Handy, C. (2001). *The elephant and the flea: Looking backwards to the future*. London: Random House.
- Hartley, J., Jacobson, D., Klandermans, B., & Van Vuuren, T. (1991). *Job insecurity: Coping with jobs at risk*. London: Sage.
- Hellgren, J., & Sverke, (2003). Does job insecurity lead to impaired well-being or vice versa? Estimation of cross-lagged effects using latent variable modeling. *Journal of Organizational Behavior*, 24, 215-236.
- Heymans, D. R. (2002). *The relationship between job insecurity, job satisfaction and organisational commitment of maintenance workers in parastatal*. Unpublished master's dissertation, P U for CHE, Vanderbijlpark.
- Kinnunen, U., Mauno, S., Nätti, J., & Happonen, M. (1999). Perceived job insecurity: A longitudinal study among Finnish employees. *European Journal of Work and Organisational Psychology*, 8, 243-260.
- Kinnunen, U., & Nätti, J. (1994). Job insecurity in Finland: Antecedents and consequences. *European Work and Organisational Psychology*, 4, 297-321.
- Mawer, G. (1999). *Language and literacy in workplace education: Learning at work*. New York: Addison Wesley Longman Inc.
- Moeletsi, M. M (2003). *Psychological empowerment, job satisfaction, organisational commitment, and job insecurity in divisions of a packing organisation*. Unpublished master's dissertation, P U for CHE, Vanderbijlpark.
- Mohr, G. (2000). The changing significance of different stressors after the announcement of bankruptcy: A longitudinal investigation with special emphasis on job insecurity. *Journal of Organizational Behaviour*, 21, 337-359.
- Moses, B. (1998). *Career intelligence*. San Francisco: Berrett-Koehler Publishers.
- Näswall, K., & De Witte, H. (2003). Who feels insecure in Europe? Predicting job insecurity from background variables. *Economic and Industrial Democracy*, 24, 189-215

- Nunnally, J. C., & Bernstein, J. H. (1994). *Psychometric theory* (3rd ed.) New York: McGraw-Hill.
- Petzall, B. J., Parker, G. E., & Stoeberl, P. A. (2000). Another side to downsizing: Survivors' behaviour and self-affirmation. *Journal of Business and Psychology*, *14*, 593-603.
- Roux, A. (2002). *Everyone's guide to the future of South Africa*. Cape Town: Zebra.
- SAS Institute. (2002). *The SAS system for Windows: Release 8.01*. Cary, NC: SAS Institute Inc.
- Sauer, D.F. (2003). *Psychological empowerment, leadership empowerment behaviour and job insecurity in a steel-manufacturing environment*. Unpublished master's dissertation, P U for CHE, Vanderbijlpark.
- SPSS (2003). *SPSS 12.0 for windows*. Chicago, IL: SPSS Incorporated.
- Sverke, M., & Hellgren, J. (2002). The nature of job insecurity: Understanding employment uncertainty on the brink of a new millennium. *Applied Psychology*, *51*, 23-42.
- Sverke, M., Hellgren, J., Näswall, K., Chirumbolo, A., De Witte, H., & Goslinga, S. (2004). *Job insecurity and union membership: European unions in the wake of flexible production*. Brussels: P. I. E.-Peter Lang.
- Van de Vijver, F., & Leung, K. (1997). *Methods and data analysis for cross-cultural research*. Thousands Oaks, CA: Sage.
- Van Vuuren, T. (1990). *Met ontslag bedreigd. Werknemers in onzekerheid over hun arbeidsplaats bij veranderingen in de organisatie*. (Threatened with retrenchment. Job insecurity among workers during organisational change). Amsterdam: VU Uitgeverij.
- Van Vuuren, T., Klandermans, B., Jacobson, D., & Hartley, J. (1991). Employees' reaction to job insecurity. In J. Hartley, D. Jackson, B. Klandermans & T. Van Vuuren, *Job insecurity: Coping with jobs at risk*. (pp. 79-103). London: Sage.
- Wolter, S. C. (1998). The cost of job insecurity - results from Switzerland. *International Journal of Manpower*, *119*, 396-409.
- Warr, P. (1987). *Work, unemployment and mental Health*. Oxford, UK: Clarendon Pres.

CHAPTER 5

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

In this chapter, the conclusions of this research are drawn. The conclusions regarding the literature study and the results of the empirical research are made and discussed with reference to the specific objectives of this study. The limitations of the study will also be discussed, followed by recommendations for the organisation and future research.

5.1 CONCLUSIONS

The objectives of this research were:

- To conceptualise future literacy, job insecurity, self-efficacy, work locus of control and dispositional optimism;
- To determine the internal consistency and reliability of the Future Literacy Questionnaire;
- To determine the future literacy levels of the participants;
- To determine the relationship between job insecurity, self-efficacy, work locus of control, and dispositional optimism;
- To determine if there are a relationship between job insecurity and future literacy.
- To determine if there are any differences between demographic groups such as age, race, gender and work category with reference to job insecurity and future literacy;
- To determine the predictive value of self-efficacy, work locus of control and dispositional optimism with regard to job insecurity;
- To determine the predictive value of future literacy with regard to job insecurity.

5.1.1 Conclusions regarding the theoretical objectives

The first objective of the study was to conceptualise the concept future literacy, job insecurity, self-efficacy, work locus of control and dispositional optimism. A survey of the literature revealed that no research existed on the concept of future literacy. The

concept of literacy is usually conceptualised in terms of specific skills of individuals like reading and writing, personal finance, computer literacy and supervisory skills but is currently not linked to future literacy skills. No research was found on the concept of future literacy as portrayed in this study. Concepts related to future literacy like employability were reviewed. Employability is indeed related to future literacy except that it is limited to the work situation of individuals. Employability refers to adaptability in the broad context within the work life of individuals. This adaptability results in being flexible with talents, competencies and expertise so that an individual could easily move from one job to another in and outside the organisation. It also includes the mobility to move to other organisations due to broad skills and talents as well as adaptability of skills, talents, abilities and capabilities.

Future literacy is more extensive than employability. It includes employability, is multidimensional, and is not only limited to an individual's employability within the organisational context, but also includes the formulation of strategies to adapt to the changing world of work inside and outside of the organisational context. It also includes the ability to survive during periods of unemployment. For the purpose of this study, future literacy is multidimensional and encompasses the concept of employability. It encompasses a new paradigm about the career that has changed from a permanent to temporary and contractual assignments with numerous employers over a lifespan. Future literacy encompasses pro-active survival life planning. It includes a balanced work and personal life as well as financial literacy as a means to survive the changing world of work. Future literacy puts an emphasis on placing security for survival in one's own abilities and personally creating opportunities (sometimes outside the organisational context) rather than having security in organisations. Future literate individuals constantly adapt to new and changing circumstances and actively practices lifelong learning as a means to adapt and survive.

Job insecurity is conceptualised in the literature as a multidimensional concept, a stressor and a global perspective. (Kinnunen, Mauno, Nätti & Happonen, 1999; Sverke, Hellgren, Näswall, Chirumbolo, De Witte & Goslinga, 2004). Greenhalgh and Rosenblatt (1984)

perceive job insecurity as multidimensional consisting of five components; including the quantity of features that are threatened, the relative importance of the job features that are threatened, the perceived threat of various changes that might impact negatively, importance of the combined effect of the threats named above and powerlessness. With reference to job insecurity as a stressor De Witte (1999) and Burchell (1999) state that job insecurity has a significant negative influence on the emotional well-being of the individual.

In terms of the global perspective of job insecurity De Witte (2000) states that job insecurity consists of cognitive and affective job insecurity. Cognitive job insecurity refers to the possibility of becoming unemployed while affective job insecurity refers to the emotional experience of the possible threatening situation. The global measure of job insecurity as constructed by De Witte (2000) was used in this study.

Self-efficacy is defined as an individual's belief in his/her capabilities to organise and execute the courses of action required to manage prospective situations (Bandura, 1997). Bandura (1986) perceives self-efficacy as the source of human motivation, well-being and personal accomplishment. The belief that people have about their abilities and the outcome of their efforts has a powerful influence on the way in which they will behave (Bandura, 1986).

In terms of locus of control the literature distinguishes between general locus of control and work locus of control. General locus of control is defined as the degree to which people believe they are masters of their own fate (Robbins, 2001). Work locus of control refers to locus of control in the work domain (Spector, 1988). Individuals with a high score on work locus of control believe that they are personally responsible for the outcome of situations in their work life. Individuals with an external work locus of control believe that the outcome of situations is determined by external factors like chance and other factors beyond their control.

Dispositional optimism is defined as a person's positive outlook towards life events (Ebert, Tucker & Roth, 2002; Scheier, Carver & Bridges, 1994). Dispositional optimism has been identified as an important factor in physical well-being, especially for people experiencing stress (Cassidy, 2000).

5.1.2 Conclusions regarding the empirical objectives

The second objective was to determine the internal consistency and reliability of the Future Literacy Questionnaire. The first step in the validation of the Future Literacy Questionnaire was to do exploratory and confirmatory factor analyses. Two factors were extracted. The two factors explained 41% of the variance of the Future Literacy Questionnaire. After analysing the specific items that loaded on the two factors, they were named in accordance with the nature of the respective factors they loaded on. Factor 1 was named Positive Mindset Towards Future Possibilities. Questions in Factor 1 are questions related to the reality of the changing world of work as well as a positive attitude towards the future. Typical questions are: "There are a lot of opportunities in the new South Africa", "Companies don't expect loyalty anymore, only results" and "I feel positive about my abilities to handle future changes". Factor 2 was named: Anticipating, Planning and Preparing for Future Changes. Questions in Factor 2 focused on anticipating, planning and preparing for future changes. Typical questions are: "I have a written plan for my life", "I anticipate future changes and prepare myself for it," "I have a plan in place if I should lose my job" and "I use every opportunity to learn new things".

Reliability analysis was very good according to the guidelines provided by Nunnally and Bernstein (1994). Cronbach alpha coefficients for Factor 1 (Positive Mindset Towards Future Possibilities) was 0,76, while for Factor 2 (Anticipating, Planning and Preparing for Future Changes) it was 0,81.

The third objective was to determine the future literacy levels of the participants. The participants scored higher on Factor 1 of the Future Literacy Questionnaire (Positive

Mindset Towards Future Possibilities) than Factor 2 (Anticipating, Planning and Preparing for Future Changes). Factor 2 focused on the practical implementation of the future literacy principles, indicating the difficulty of the practical implementation of the future literacy principles in comparison with a positive mindset (Factor 1). The impression was created that being positive about the future (Factor 1) is easier than the actual anticipating, planning and preparing for future changes. Analysing the questions in Factor 2 revealed that Factor 2 relates to the practical implementation of the future literacy principals. Typical questions in Factor two are: "I have a written plan for my life" and "I do long term financial planning" and "I have a self development plan". This seems to be more difficult to implement when compared with Factor 1. Typical questions in Factor one are: "There are a lot of opportunities in the new South Africa" and "I feel positive about my abilities to handle future changes".

The fourth objective was to investigate the relationship between job insecurity as dependent variable and self-efficacy, work locus of control and dispositional optimism as independent variables. The instruments used to measure job insecurity, work locus of control, self-efficacy and dispositional optimism demonstrated satisfactory reliability according to the guidelines provided by Nunnally and Bernstein (1994). Simple principal components factor analysis was done on the different measuring instruments. The principal components analysis of the Work Locus of Control Scale indicated a two factor model measuring external and internal work locus of control. The principal components factor analysis that was done on the Job Insecurity Questionnaire has shown that the factors did not load on two factors as described by De Witte (2000). Most items that form part of affective job insecurity (Factor 2) loaded on cognitive job insecurity (Factor 1). These results are supported by the findings Bosman (2005) who reported a good fit of the Job Insecurity Questionnaire data to a unidimensional model. It was decided to use only the total score of the questionnaire.

The results indicated the existence of practically significant correlations (medium effect) between job insecurity, self-efficacy work locus of control and dispositional optimism. Self-efficacy correlated negatively with job insecurity, implying that job insecurity decreased as self-efficacy increased. This finding is in line with the findings of Elbert (2002) and Soehnlein (1998) who found a positive correlation between low levels of job insecurity and self-efficacy. Self-efficacy correlated (practically significant) with dispositional optimism indicating a medium effect. Self-efficacy increased as dispositional optimism increased.

Internal work locus of control correlated practically significantly of a medium effect (0,34) with self-efficacy. Locus of control is defined as the degree to which people believe they are masters of their own fate (Robbins, 2001) while self-efficacy is defined as an individual's belief in his/her capabilities to organise and execute the courses of action required to manage prospective situations (Bandura, 1997). This relationship indicates that participants with an internal locus of control believe that they are masters of their own fate and they also believe they possess the capability to be successful.

With reference to the relationship of external work locus of control and self-efficacy external work locus of control had a statistically significant (but not practically significant) negative correlation with self-efficacy. The latter indicates that as an external work locus of control increases self efficacy decreases.

Internal work locus of control correlated practically significantly of a medium effect with dispositional optimism (0,33). Dispositional optimism can be defined as a person's positive outlook towards life events (Scheier, Carver & Bridges, 1994). Participants with an internal work locus of control tend to be positive about life.

External work locus of control correlated negatively with dispositional optimism (0,30) practically significantly of a medium effect. The latter indicates that dispositional optimism decreases as an external work locus of control increases.

A practically significant negative correlation of a medium effect was also obtained between internal work locus of control and job insecurity (-0,34). Job insecurity decreases as an internal work locus of control increases. Participants with an internal work locus of control experience less job insecurity probably because of their tendency to take personally responsibility for the outcome of situations.

External work locus of control had practically significant correlation (0,37) of a medium effect with job insecurity. Job insecurity increases as an external work locus of control increases. This correlation is in line with the definition of an external work locus of control that implies that participants do not take responsibility for their actions but rather ascribed the outcome of their actions to external factors that was not under their control. Participants with an external work locus of control experience higher levels of job insecurity, possibly because of their tendency not to take personal responsibility for their actions.

The fifth objective of this study was to determine if there is a relationship between job insecurity and future literacy. The results indicated a practically significant negative correlation (medium effect) between job insecurity and future literacy. This implied that as future literacy increased job insecurity decreased. The negative correlation between future literacy and job insecurity indicated that candidates who are future literate experience less job insecurity. Analysing the characteristics of future literate individuals indicated that they should adapt better in the changing world of work. Future literate individuals can be described as individuals displaying the following characteristics (Boëttger & Dippenaar, 2002; Moses, 1998): They can adapt to changing circumstances. They have a tendency to anticipate future changes and prepare for it (pro-active individuals). They possess higher levels of self-efficacy in the sense that they have the confidence to perform a variety of tasks successfully. They have an internal work locus of control by personally taking responsibility for the outcome of situations. They are financially literate by striving for financial independence. Future literate individuals know that it is not wise to depend on organisations for financial security. They practice

lifelong learning by utilising every opportunity to learn new skills. They have short and long-term goals, which they pursue actively. The existence of a relationship between future literacy and job insecurity is therefore very important in order to come to a better understanding of the different factors that influence job insecurity.

T-tests revealed that significant differences existed between candidates who scored high on future literacy and low on job insecurity. Candidates who scored low on future literacy scored high on job insecurity.

The sixth objective of this study was to determine if there were any differences between demographic groups based on age, race, gender, qualifications and work category with reference to job insecurity and future literacy using MANOVA and ANOVA analysis.

In terms of job insecurity and demographic variables practically significant differences of a medium effect were evident in the job insecurity levels of the age groups of 25-35 years, 36-45 years and 56 years and older. The age group 36-45 years experienced higher levels of job insecurity when compared to the age group of 25-35 and 56 years and older. The age of 36-45 appears to be a complicated phase in the career of the individual (Sverke et al., 2004). This is usually the time when most individuals have to make serious decisions about their long term career. This results does not corresponded with the findings of Mohr (2000), Hartley, Jacobson, Klandermans and Van Vuuren (1991) as well as South African studies by Heymans (2000) and Sauer (2003) that older employees experience more job insecurity.

With reference to work category general workers experienced higher levels of job insecurity. No practically significantly differences were found between demographic variables such as gender and qualifications. In terms of age the results correspond with a South African study by Buitendach, Oosthuyzen and van Wyk (2005) who found no relationship between gender and job insecurity. With reference to qualifications a South African study Bosman (2005) found no correlation between qualifications and job insecurity.

With reference to demographic variables and future literacy the results indicated statistically significant differences between future literacy and work category. In terms of work category, specialists seemed to experienced high levels of future literacy on Factor 1 (Positive Mindset Towards Future Possibilities PM) and Factor 2 (Anticipating, Planning and Preparing for Future Changes AP). A possible explanation for the fact that specialists are more future literate is that this group is similar to entrepreneurs (they generate their own income) in the financial institution where the research was undertaken.

T-tests were used to determine the differences between the groups with reference to race, gender and qualifications. The differences were statistically significant but not practically significant. The only practically significant difference was between Black and White participants. Black participants scored significantly higher than White participants on future literacy. Since the implementation of the Employment Equity Act 55 of 1998 (Republic of South Africa, 1998), organisations must ensure equal opportunities for employees employed as well as new appointments. It could therefore be expected that different culture groups feel different about the future and future prospects. Black participants might be more positive than Whites because of perceived possibilities resulting from employment equity and therefore scored higher on future literacy. Employment equity allows Black participants the possibility to anticipate, plan and prepare for future possibilities.

The seventh objective of this study was to determine the predictive value of self-efficacy, work locus of control and dispositional optimism with regard to job insecurity. Multiple regression analysis indicated that self-efficacy (practically significant of a medium effect), and dispositional optimism (practically significant of a large effect) as well as internal and external work locus of control (practically significant of a medium effect) have predictive value with regard to job insecurity.

The last objective of this study was to determine the predictive value of future literacy with regard to job insecurity. Results indicated that both Factor 1 (Positive Mindset Towards Future Possibilities PM) and Factor 2 (Anticipating, Planning and Preparing for Future Changes) holds predictive value with regard to job insecurity. The predictive of value for Factor 1 and Factor 2 was practically significant of a medium effect.

5.2 LIMITATIONS OF THIS RESEARCH

Future literacy is a new concept. This concept emerged from the future literacy training that orientates people about the changing world of work as well as strategies to adapt to the changing world of work. Future literacy and employability share certain areas of common characteristics. Neither of the concepts is satisfactory operationally defined and need further conceptualisation and research. The concept of future literacy seems to be an important variable in adapting to the changing world of work. This research should only be seen as the first step in conceptualising the concept of future literacy. The identification of certain relationships that existed in this study is highly theoretical and further research is needed to establish conceptual clarity on future literacy.

South Africa is a multicultural society. According to Van de Vijver and Leung (1997), construct equivalence and bias should be tested for instruments in a multicultural society to determine possible sources of inappropriate comparisons across culture groups. Due to the low percentage of Black participants (18%) it was not possible to test for construct equivalence and bias.

The third limitation was the design used in this research. The use of a cross-sectional design limited the findings to a once-off measurement without considering the long-term effect of the variables that were measured. Although a relationship was found between job insecurity, self-efficacy, work locus of control and dispositional optimism the longitudinal effect of such a relationship is not established. Future literacy distinguishes significantly between respondents who experience high job insecurity and those who experience low job insecurity. To establish the long-term effect of future literacy on job

insecurity, it will be necessary to study the effect of future literacy on job insecurity over longer periods. A time series measurement would be appropriate.

The fourth limitation was that the study population was not a representation of the company but was limited to three geographical areas. The researcher was only permitted to use respondents in certain areas. The results could therefore not be generalised to the entire company but only to the applicable geographical areas.

The fifth limitation was the attitude of some respondents. Afrikaans speaking respondents were negative and refused to complete the questionnaires in English. Some respondents were “forced” to attend the training sessions. Some respondents were therefore not positive towards the training intervention. This negative attitude of some respondents might have influenced the way they responded to the different questions.

5.3 RECOMMENDATIONS

Recommendations will be made to the specific organisation where the research was undertaken as well as for further research.

5.3.1 Recommendations for the organisation

The organisation where the research was conducted is experiencing large changes due to the restructuring of the financial sector in South Africa. This was the reason why the future literacy training was introduced. The following recommendations are made to the company:

The future literacy levels of the workers need to be considered. The future literacy levels of the study population on Factor 1, Positive Mindset Towards Future Possibilities, fall within the average and above average category. With regard to Factor 2 (Anticipating, Planning and Preparing for Future Changes AP), the study population scored noticeably

lower in comparison with Factor 1 (Positive Mindset Towards Future Possibilities) (PM). These results indicated that being positive about the future (Factor 1) is easier than the actual anticipating, planning and preparing for future changes. Analysing the questions in Factor 2 revealed that this factor had to do with the practical implementation of the future literacy principles. Typical questions in Factor 2 were: "I have a written plan for my life ", " I do long term financial planning " and " I have a self development plan ". This seemed to be more difficult to implement when compared to Factor 1. Typical questions in Factor 1 were: "There are a lot of opportunities in the new South Africa " and "I feel positive about my abilities to handle future changes ". The organisation should take these lower scores on Factor 2 in consideration in terms of the changes that they plan for the future. The lower scores on Factor 2 seem to indicate that employees could find it difficult to adapt to the practical changes that are being planned for the future.

The aspirations of Black participants should be taken into consideration. Black participants scored visibly higher on both factors of future literacy. A total of 80% scored above average and high on Factor 1 (only 52% White participants scored above average and high on Factor 1) while 55% scored above average and high on Factor 2 (only 15% White participants scored above average and high on Factor 2). Black participants might be more positive than whites because of perceived possibilities resulting from employment equity. Employment equity allows Black participants the possibility to anticipate, plan and prepare for future possibilities. Since the organisation plans to embark on entering the Black financial market, it should ensure development of the potential of their black employees and take their aspirations into account.

The job insecurity of general workers needs to be taken into account. General workers experienced more job insecurity when compared to management and specialists. General workers were mostly administrative workers. The recent restructuring that the study population experienced seemed to have had a bigger impact on general workers. Administrative staff that formed 53% of the study population experienced the most job insecurity. Reasons for the job insecurity of administrative workers need to be

determined, as well as interventions to manage their job insecurity. There are sufficient evidence in the literature that job insecurity has a significant negative influence on the emotional well-being of the workers by damaging psychological health. (Burchell, 1999; De Witte, 1999; Mauno & Kinnunen, 1999).

The differences between age groups needs to be taken into account. The age group 36 – 45 years experienced significantly more job insecurity. This group represent 38% of the study population and could be seen (to a certain extent) as the next management generation in the organisation. It is therefore important for the organisation to attend to the job insecurity of this age group. Job insecurity seems to be less problematic for the younger and older generation. The younger generation has less responsibilities while the older generation is preparing for the new role of retirement (De Witte, 1999).

The employees' readiness for change. This organisation where the research was undertaken, recently underwent restructuring and plan more changes for the future. This is the reason the organisation embarked on a future literacy training programme for all their employees. To ensure smooth transitions the organisation needs to ensure that its employees are ready for the planned changes. They should ensure a follow-up training session, which includes future literacy as a reinforcement and orientation to adapt to large scale change.

The reluctance of some of the respondents to complete questionnaires that are not written in their mother tongue is a matter of concern. The latter might indicate an unwillingness to adapt to changing circumstances.

5.3.2 Recommendations for future research.

Despite the limitations of this research the conceptualisation and measurement of the construct future literacy is an important contribution to the world of work, which is constantly changing. The findings of this study have important implications for future

research, as the (negative) effects of the changing world of work have a negative impact on the psychological well-being of employees. The following recommendations are made for future research.

The conceptualisation of future literacy needs further clarification. The concept of literacy is usually conceptualised in terms of specific skills for individuals like reading and writing, personal finance, computer literacy and supervisory skills but is currently not linked to future literacy skills. No research was found on the concept of future literacy as portrayed in this study. The concept of future literacy is relatively new and needs further conceptualisation and research. Future literacy has certain common characteristics with related constructs like employability and further research is needed for conceptual clarity.

The measurement of future literacy needs further attention . The factor analysis of future literacy revealed two factors. It was necessary to adapt the model and after specific corrections were made a good fit was obtained for the two factor model. Thorough research is needed to ensure that all possible aspects of the construct are included in the measurement.

Future research could study the antecedents of future literacy. The role of the environment, organisational circumstances, individual and personality factors need to be studied to come to a better understanding of the antecedents of future literacy,

Testing for construct equivalence is of the utmost importance in a multicultural society. Due to the low percentage of Black participants, (18%) it was not possible to test for construct equivalence and bias. Future research should test for construct equivalence and bias to make the future literacy questionnaire a more represented and applicable measuring instrument in a multicultural society.

The success of future literacy training needs to be investigated. The success of future literacy training on changing the mindset of employees needs to be determined. The long-term success of future literacy training needs to be studied over longer periods of time to

determine the longitudinal effect of such training. Will future literacy training result in lower job insecurity and what will the long term effects of such an intervention be? Are future literate individuals better adapted in the workplace, happier workers, more productive and are they performing better? These are all questions that could be investigated by future research.

The role and responsibility of the individual versus the organisation in becoming future literate is an important aspect in the changing world of work. The negative effect of job insecurity on the organisation and the effect on the psychological well-being of workers make research about the construct essential. What is the solution to job insecurity and does the answer lie within the organisational context or should the individual be held responsible to seek a personal solution outside the organisational context? In the organisational context, it is important that the organisation becomes aware of future literacy as a way of reducing job insecurity, as well as its role in providing future literacy training. Future literacy and future literacy training can try to create a new mindset about job insecurity. It encompasses a new paradigm about the career that has changed from a permanent to a temporary and contractual assignment with numerous employers over a lifespan. Future literacy emphasises placing security for survival on one's own abilities and creating opportunities (sometimes outside the organisational context) rather than having security in organisations. The effect of the changing world of work on the emotional well-being of workers is immense and will continue to affect workers emotionally and financially. Future research should investigate the willingness and the readiness of organisations to equip workers with future literacy training to adapt to changing circumstances.

The design of future literacy training should receive serious attention. Future research should also pay attention to the design of future literacy programs to re-train workers and to ensure their mobility, employability and adaptability in the changing world of work. Its success will have a significant influence on the security of workers and on their emotional well-being.

The influence of self-efficacy, work locus of control and dispositional optimism needs to be studied over longer periods to determine the longitudinal effect of these constructs on job insecurity. Further research is also needed to establish the effect of self-efficacy training and the stimulation of an internal work locus of control on job insecurity. Self-efficacy training and the stimulation of an internal work locus of control seems to be successful (Eden & Aviram, 1993; Els, Linde & Rothmann, 2001; Olivier & Rothman, 1999). The long-term effect of the training on job insecurity needs to be investigated in order to get a better understanding of the effect of work locus of control and self-efficacy on job insecurity.

Further research is needed to shed light on the influence of dispositional optimism on job insecurity. Can optimism be learned and what will its effect and long-term effect be on job insecurity?

REFERENCES

- Arbuckle, J. L. (1997). *Amos 4.0*. Chicago, IL: Smallwaters.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Boëtger, J., & Dippenaar, H. (2002). *Inspirational leadership through visual knowledge management*. Johannesburg: Jacana Publishers.
- Bosman, J. (2005). *Job insecurity and wellness of employees in a government organisation*. Unpublished doctoral thesis, North-West University, Vaal Triangle Campus, South Africa.
- Buitendach, J. H., Oosthuyen, A., & Van Wyk, C. de. W. (2005). Predicting job insecurity from background variables. *South African Journal of Industrial Psychology*, 31(3), 70-78.
- Burchell, B. J. (1999). The unequal distribution of job insecurity. *International Review of Applied Economics*, 13, 437-459.
- Cassidy, T. (2000). Social background, achievement motivation, optimism and health: A longitudinal study. *Counselling Psychology Quarterly*, 13, 399-413.
- De Witte, H. (1999). Job insecurity and psychological well-being: Review of the literature and exploration of some unresolved issues. *European Journal of Work and Organizational Psychology*, 8, 155-177.
- De Witte, H. (2000). Arbeidsethos en jobonzekerheid: Meting en gevolgen voor welzijn, tevredenheid en inzet op het werk. (Labour ethics and job insecurity: Measurement and consequences for well-being, satisfaction and labour input). In Bouwen, R., De Witte, K., De Witte, H., & Taillieu, T. (Eds.), *Van groep tot gemeenschap* (pp. 325-350). Liber Amicorum Prof. Dr. L. Lagrou. Leuven, Belgium: Garant.
- Ebert, S. A., Tucker, D. C., & Roth, D. L. (2002). Psychological resistance factors as predictors of general health status and physical symptoms reporting. *Psychology, Health & Medicine*, 7, 363-375.
- Eden, D., & Aviram, A. (1993). Self-efficacy training to speed reemployment: Helping people to help themselves. *Journal of Applied Psychology*, 3, 352-360.

- Elbert, J. E. (2002). *Job insecurity and psychological strengths of service workers in a parastatal*. Unpublished master's dissertation, P U for CHE, Vanderbijlpark.
- Els, D. A., Linde, L. H., & Rothmann, S (2001). Die evaluering van n ontwikkelingsprogram gerig op werknemers se lokus van beheer. *Journal of Industrial Psychology*, 27(3), 24-29.
- Greenhalgh, L. & Rosenblatt Z. (1984). Job insecurity: Towards conceptual clarity. *Academy of Management Review*, 9, 438-48.
- Hartley, J., Jacobson, D., Klandermans, B., & Van Vuuren, T. (1991). *Job insecurity: Coping with jobs at risk*. London: Sage.
- Heymans, D. R. (2002). *The relationship between job insecurity, job satisfaction and organizational commitment of maintenance workers in a parastatal*. Unpublished master's dissertation, P U for CHE, Vanderbijlpark.
- Kinnunen, U., Mauno, S., Nätti, J., & Happonen, M. (1999). Perceived job insecurity: A longitudinal study among Finnish employees. *European Journal of Work and Organisational Psychology*, 8, 243-260.
- Mauno, S., & Kinnunen, U. (1999). Job insecurity and well-being: A longitudinal study among male and female employees in Finland. *Community, Work & Family*, 2, 147-171.
- Mohr, G. (2000). The changing significance of different stressors after the announcement of bankruptcy: A longitudinal investigation with special emphasis on job insecurity. *Journal of Organizational Behaviour*, 21, 337-359.
- Moses, B. (1998). *Career intelligence*. San Francisco, CA: Barrett-Koehler Publishers.
- Nunnally, J. C., & Bernstein, J. H. (1994). *Psychometric theory* (3rd ed). New York: McGraw-Hill.
- Olivier, M. J. C., & Rothmann, S. (1999). The stimulation of an internal locus of control in employees in a manufacturing industry. *South African Journal of Economic & Management Science*, 2, 476-491.
- Republic of South Africa (1998). Employment Equity Act 55 of 1998. *Government Gazette*, 400, No. 19370. Pretoria: Government Printer.
- Robbins, S. P. (2001). *Organizational behavior*. Englewood Cliffs, NJ: Prentice Hall.

- Sauer, D. F. (2003). *Psychological empowerment, leadership empowerment behaviour and job insecurity in a steel-manufacturing environment*. Unpublished Master's dissertation, North-West University, Vaal Triangle Campus, South Africa.
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self mastery, and self esteem): reevaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, *67*, 1063-1078.
- Soehnlein, K. M. (1998). The relationship of job insecurity, career planning, and goal orientation and the self-development of survivors in a downsizing corporation. *Humanities and Social Science*, *59*, 5A, 1436.
- Spector, P. E. (1988). Development of the work locus of control scale. *Journal of Occupational Psychology*, *61*, 335-340.
- Sverke, M., Hellgren, J., Näswall, K., Chirumbolo, A., De Witte, H., & Goslinga, S. (2004). *Job insecurity and union membership: European unions in the wake of flexible production*. Brussels: P. I. E.-Peter Lang .
- Van de Vijver, F., & Leung, K. (1997). *Methods and data analysis for cross-cultural research*. Thousands Oaks, CA: Sage.