

**THE RELATIONSHIP BETWEEN
PSYCHOLOGICAL WELL-BEING AND
ACADEMIC PERFORMANCE OF UNIVERSITY STUDENTS**

Nadia van der Merwe, Honours B.A.

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Supervisor: Dr. C.S. Jonker

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FOR THE READER'S ATTENTION

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- The mini-dissertation is submitted in the form of a research article. The editorial style specified by the *South African Journal of Industrial Psychology* (which agrees largely with the APA-style) is used, but the APA guidelines were followed in the construction of tables.
- Each chapter of the mini-dissertation has its own reference list.

PREFACE

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SUMMARY

Title: The relationship between psychological well-being and academic performance of university students.

Key words: Psychological well-being; optimism; life satisfaction; self-efficacy; emotional intelligence; burnout; stress; future employees; new labour market entrants; academic performance; coping.

Emotional intelligence is a relatively new and growing area of behavioural research, which stimulated the imagination of the general public, the commercial world and the scientific community. Only a few studies have been done on the relationship between emotional intelligence and academic performance. The objective of this study was to determine the relationship of emotional intelligence, optimism, life satisfaction and self-efficacy, as well as the validity and reliability of these measures on a sample of university students. Further objectives included conceptualising emotional intelligence, optimism, life satisfaction, self-efficacy, well-being and academic performance and determining the validity and reliability of the 33-item measurement of emotional intelligence (SEIS) for a sample of potential future employees in economical sciences professions. The results obtained from this study will help organisations determine the level of emotional intelligence and well-being of their future workforce, in order to implement certain interventions to improve it.

A cross-sectional survey design was used for this study. A sample of 341 students was used for this study, but only 324 of the responses could be utilised. The participants ($N = 324$) were students within the field of economics. 117 Students were from the Vanderbijlpark Campus and 207 students were from the Potchefstroom Campus. The Schutte Emotional Intelligence Scale, Life Orientation Test Revised, Satisfaction with Life Scale, and the General Perceived Self-Efficacy Scale were administered. Descriptive and inferential statistics were used to analyse the statistical data.

The results obtained from the SEIS proved this measuring instrument to be valid and reliable. By using the multiple linear regression analysis approach, a six dimensional factor structure for emotional intelligence among students emerged, which supported earlier conceptions in this regard.

The results showed that *Interpersonal* factors consisted of Positive Affect, Emotions-Others, Happy Emotions, Emotions-Own, Non-Verbal Emotions and Emotional Control. *Intrapersonal* factors consisted of Self-Efficacy, Life Satisfaction and Optimism.

Self-efficacy, Life satisfaction, Optimism, Pessimism, Positive Affect, Emotion-Others, Happy Emotions, Emotion-Own, Non-Verbal Emotions and Emotional Control, predict 16% of the variance in Academic Performance. Significant predictors of Academic Performance are Life Satisfaction, Optimism, Pessimism and Emotions-Others.

A second order factor analysis was done on the factors of the SEIS, LOT-R, GPSES, and the SWLS. Two factors were extracted explaining 50,95% of the variance. These factors were called *Interpersonal* Factors and *Intrapersonal* Factors. On the Intrapersonal Factor, the following factors loaded: Emotions-Others, Happy Emotions, Emotions-Own and Non-Verbal Emotions. Self-Efficacy, Life Satisfaction and Optimism, Positive Affect and Emotional Control loaded on the Interpersonal Factor. It is evident from the above that psychological well-being consisted out of two dimensions namely Interpersonal and Intrapersonal aspects.

Positive Affect is significantly positively related (large effect) to Optimism and Self-Efficacy and significantly positive related (medium effect) to Emotions-Others, Happy Emotions, Emotions-Own, Non-Verbal Emotions and Emotional Control. Emotions-Others is significantly positively related (medium effect) to Happy Emotions, Emotions-Own and Self-Efficacy. Happy Emotions is significantly positively related (medium effect) to Emotions-Own, Non-Verbal Emotions, Emotional Control, Optimism and Self-Efficacy. Emotions-Own is significantly positively related (medium effect) to Non-verbal Emotions, Emotional Control, Optimism and Self-Efficacy. Non-verbal Emotions significantly positively related (medium effect) to Emotional Control and Self-Efficacy.

Emotional Control significantly positively related (large effect) to Self-Efficacy and significantly positively related (medium effect) to Optimism and Life Satisfaction. Optimism significantly positively related (medium effect) to Life Satisfaction and Self-Efficacy.

Pessimism is significantly negatively related (medium effect) to Life Satisfaction and Self-Efficacy. Life satisfaction is significantly positively related (medium effect) to Self-Efficacy and Academic Performance.

Recommendations for future research were made.

OPSOMMING

Titel: Die verhouding tussen psigologiese welstand en akademiese prestasie van universiteit studente.

Sleutelwoorde: Psigologiese welstand; optimisme; lewenstevredenheid; self-effektiwiteit; emosionele intelligensie; uitbranding; stres; toekomstige werknemers; nuwe arbeidsmark-intreders; akademiese prestasie; coping.

Emosionele intelligensie is 'n relatiewe nuwe en groeiende area in die gedragswetenskappe, wat die verbeelding van die algemene publiek, die kommersiële wêreld en die wetenskaplike gemeenskap gestimuleer het. Slegs 'n beperkte aantal studies is al gedoen rakende die verwantskap tussen emosionele intelligensie en akademiese prestasie. Die doelwit van die studie was om die verwantskappe van emosionele intelligensie, optimisme, lewenstevredenheid en self-effektiwiteit, sowel as die geldigheid en betroubaarheid van hierdie meetinstrumente te bepaal, vir 'n populasie van universiteit studente. Verdere doelwitte sluit in die konseptualisering van emosionele intelligensie, optimisme, lewenstevredenheid, self-effektiwiteit, welstand en akademiese prestasie, sowel as die bepaling van die geldigheid en betroubaarheid van die 33-item meetinstrument van emosionele intelligensie (SEIS) op 'n populasie van potensiële toekomstige werknemers in ekonomiese wetenskap professies. Die resultate verkry vanuit die studie, kan organisasies help om te bepaal wat die emosionele intelligensie vlak, sowel as die welstand van hul toekomstige potensiële werksmag is, om sodoende dit te kan verbeter deur sekere intervensies te implementeer.

'n Dwarsdeursnee-opname ontwerp was gebruik gedurende hierdie studie. 'n Populasie van 341 studente was gebruik, maar slegs 324 van die response was bruikbaar. Die deelnemers ($N = 324$) was studente vanuit die ekonomiese wetenskap velde. 117 Studente was van die Vanderbijlpark Kampus en 207 studente was van die Potchefstroom Kampus. Die Schutte Emosionele Intelligensie Skaal, Hersiende Lewensoriëntasie Toets, die Lewenstevredenheid Skaal en die Algemene Observasieskaal van Self-Effektiwiteit was afgeneem. Beskrywende en inferensiële statistieke is gebruik om die statistiese data te ontleed.

Die resultate verkry van die SEIS het die meetinstrument geldig en betroubaar bewys. Met behulp van die meervoudige liniêre regressie-analise-benadering, is 'n ses dimensionele faktor struktuur van emosionele intelligensie verkry, wat ooreenstem met vorige konsepsies in dié verband.

Self-Effektiwiteit, Lewenstevredenheid, Optimisme, Pessimisme, Positiewe Affek, Emosies-Ander, Gelukkige Emosies, Emosies-Self, Nie-Verbale Emosies en Emosionele Beheer voorspel 16% van die variansie in Akademiese Prestasie. Lewenstevredenheid, Optimisme, Pessimisme en Emosies-Ander is betekenisvolle voorspellers van Akademiese Prestasie.

'n Tweede-orde faktor analise is gedoen op die faktore van die Schutte Emosionele Intelligensie Skaal, Hersiende Lewensoriëntasie Toets, die Lewenstevredenheid Skaal en die Algemene Observasieskaal van Self-Effektiwiteit. Twee faktore is onttrek en verduidelik 50,95% van die variansie. Die twee faktore is genoem *Interpersoonlike* faktore, wat bestaan uit Positiewe Affek, Emosies-Ander, Gelukkige Emosies, Emosies-Self, Nie-Verbale Emosies en Emosionele Beheer, en *Intrapersoonlike* faktore wat bestaan uit Self-Effektiwiteit, Lewenstevredenehid en Optimisme. Dit is duidelik uit bogenoemde dat psigologiese welstand uit twee dimensies, bestaan naamlik Interpersoonlike-en Intrapersoonlike aspekte.

Positiewe Affek het 'n betekenisvolle positiewe verband (groot effek) met Optimisme en Self-Effektiwiteit, en het 'n betekenisvolle positiewe verband (medium effek) met Emosies-Ander, Gelukkige Emosies, Emosies-Self, Nie-Verbale Emosies en Emosionele Beheer. Emosies-Ander het 'n betekenisvolle positiewe verband (medium effek) met Gelukkige Emosies, Emosies-Ander en Self-Effektiwiteit. Gelukkige Emosies hou 'n betekenisvolle positiewe verband (medium effek) met Emosies-Ander, Nie-Verbale Emosies, Emosionele Beheer, Optimisme en Self-Effektiwiteit. Emosies-Ander hou 'n betekenisvolle positiewe verband (medium effek) met Nie-Verbale Emosies, Emosionele Beheer, Optimisme en Self-Effektiwiteit.

Emosionele Beheer het 'n betekenisvolle positiewe verband (groot effek) met Self-Effektiwiteit en 'n betekenisvolle positiewe verband (medium effek) met Optimisme en Lewenstevredenheid. Optimisme het 'n betekenisvolle positiewe verband (medium effek) met Lewenstevredenheid en

Self-Effektiwiteit. Pesimisme het 'n betekenisvolle negatiewe verband (medium effek) met Lewenstevredenheid en Self-Effektiwiteit. Lewenstevredenheid het 'n betekenisvolle positiewe verband (medium effek) met Self-Effektiwiteit en Akademiese Prestasie.

Voorstelle vir toekomstige navorsing is gemaak.

CHAPTER 1

INTRODUCTION

This mini-dissertation deals with psychological well-being and academic performance of university students in the field of economic sciences. In Chapter 1, the motivation for the research is discussed in terms of the problem statement and aims of the research. Thereafter the research method and division of chapters are discussed.

1. PROBLEM STATEMENT

For many years, the relevance of moods, feelings and emotions to the world of work was denied. These constructs were regarded as transient disturbances to the linkage between abilities and performance (Muchinsky, Kriek, & Schreuder, 2003). However, it is becoming evident that moods, feelings and emotions play just as significant a role in organisations as they do in life in general.

Höpfl and Linstead (1997) summarise that organisational emphasis on rationality led to the neglect of emotional issues in organisations. The concept of emotional intelligence was developed due to the inability of traditional measures of rational thinking to predict future success in life (Höpfl & Linstead, 1997).

Salovey and Mayer (1990) initially proposed the concept of emotional intelligence and suggested that individuals differ in the way they deal with their emotions. Salovey and Mayer (1990) view emotional intelligence as knowing and managing one's own emotions, motivating oneself towards mastery and creativity, and recognising and handling emotions in others. This information can then be used to guide one's thinking and actions. Those who are able to manage their emotions effectively are said to be "emotionally intelligent" (Goleman, 1995).

Goleman (1995) proposed five dimensions to the construct of emotional intelligence: 1) knowing one's own emotions, 2) managing one's own emotions, 3) motivating oneself, 4) recognising

emotions in others, and 5) handling relationships. Those dimensions concerned with the self are classified as “*intrapersonal*”. Those dimensions concerning others are classified as “*interpersonal*”.

According to Klausner (1997), emotional intelligence is a dictator of interpersonal relationships. Emotional intelligence refers to an array of non-cognitive skills, capabilities and competencies, which can influence a person’s ability to cope with environmental demands and pressures (Martinez, 1997; Bar-On, 2001).

Emotional intelligence is a cluster of traits and abilities relating to the emotional side of life – these include abilities such as awareness and management of one’s own feelings and emotions, being able to motivate oneself and restrain one’s impulses, recognition and management of others’ emotions, and handling interpersonal relationships in an effective manner (Bar-On, 2001). Emotional intelligence is the ability to adaptively perceive, understand, regulate and harness emotions in the self and others (Schutte, Malouff, Simunek, McKenley, & Hollander, 2002).

According to Spector (2003), emotional intelligence is a characteristic which falls between a personality trait and a cognitive ability. The ability to control and recognise emotions in the self and others makes people more socially skilled, enabling them to be aware of, and control, their impact on others. In a work setting this means being able to work co-operatively with colleagues, and in supervisory positions it refers to practising effective leadership (Spector, 2003).

Emotional intelligence is concerned with self-awareness and empathy; the skills needed in building successful organisations. Goleman (1996) describes self-awareness as being aware of one’s mood and one’s thoughts regarding that particular mood, giving non-judgemental, non-reactive attention to one’s inner state.

The balance of positive and negative emotions contributes to judgements of life satisfaction (Diener & Larsen, 1993). Satisfaction is a state of mind – a cognitive judgemental process by an

individual (Saris, Veenhoven, Scherpenzeel, & Bunting, 1996). Life satisfaction can be seen as the extent to which a person positively evaluates the overall quality of his or her own life as a whole.

Diener, Emmons, Larsen, and Griffen (1985) define life satisfaction as a global evaluation by the person with regard to his or her own life. In other words, it refers to the degree to which a person likes the life he or she leads.

Positive emotions trigger upward spirals toward psychological well-being, in the sense that the effects of positive emotions accumulate and compound (Fredrickson & Joiner, 2002). Previous experiences of positive emotions broaden attention and cognition, and facilitate coping with adversity (Aspinwall, 1998). Improved coping predicts, in turn, future experiences of positive emotions (Stein, Folkman, Trabasso, & Richards, 1997). People build psychological resilience as this cycle continues. In the end, this cycle leads to enhanced psychological well-being (Davis, Nolen-Hoeksema, & Larsen, 1998). People who possess the ability to understand and regulate their emotions tend to maintain a better outlook on life, and experience better psychological health (Schutte, et al., 2002).

Life satisfaction is considered an indicator of overall happiness and psychological well-being (Spector, 2003). Psychological well-being is related to emotional intelligence. Several authors have theorised that high emotional intelligence would lead to greater feelings of psychological well-being (Goleman, 1995; Saarni, 1999; Salovey & Mayer, 1990).

Some empirical evidence that emotional intelligence is associated with psychological well-being comes from research indicating that higher levels of emotional intelligence are associated with reduced cases of depression (Martinez, 1997), greater optimism (Schutte, Malouff, Hall, Haggerty, Cooper, Golden, & Dornheim, 1998) and greater life satisfaction (Ciarrochi, Chan, & Caputi, 2000).

One positive emotion can create psychological broadening and increases the possibility that an individual will find positive meaning in subsequent events, and experience additional positive emotions in the future (Fredrickson & Joiner, 2002).

Optimism refers to a conviction that the future holds desirable outcomes, irrespective of one's personal ability to control those outcomes (Marshall & Lang, 1990). Attribution style is significantly predictive of psychological well-being (Cheng & Furnham, 2003), and attributes for positive outcomes have a stronger effect on happiness than attributes for negative outcomes. Attributing positive outcomes to oneself and believing that positive outcomes will occur, will increase psychological well-being (Cheng & Furnham, 2003). Optimism has also been identified as an important factor in physical health (Cassidy, 2000).

Optimism has been found to have a positive effect on personal adjustment, life satisfaction, and overall well-being (Carver & Scheier, 2002). Elbert, Tucker, and Roth (2002) describe optimism as a person's positive outlook towards life events. It influences subjective experience when confronted with problems, and the actions one engage in when attempting to deal with these problems. The global confidence in one's coping ability is referred to as positive efficacy (Schwarzer, 1993).

In general, self-efficacy can be described as a general, stable cognition that individuals carry, which reflects the expectation that they possess the ability to perform successfully in a variety of situations (Eden & Zuk, 1995). According to Gardner and Pierce (1998), frequent situation-specific experiences of personal success bring about generalised self-efficacy.

According to Bandura (1989), self-efficacy makes a difference in people's feelings, thoughts and actions. Regarding feelings, low self-efficacy is associated with depression, anxiety and helplessness. Such individuals have low self-esteem, they harbour pessimistic thoughts regarding their accomplishments and personal development, and they tend to be more self-critical (Ganster & Schaubroeck, 1991).

In terms of thoughts, individuals with low self-efficacy experience uncertainty regarding the correctness of their thoughts and therefore rely more on social cues. Regarding action, people with high self-efficacy tend to choose more challenging tasks for themselves. They set higher goals for themselves and usually achieve these goals. These people seek social support by conforming to other's expectations. They recover more quickly from setbacks and maintain commitment to their goals (Schwarzer, 1999). Therefore high self-efficacy seems to be related to emotional intelligence.

Emotion is considered to be a primary adaptive and motivating mechanism. Emotions contribute effectively to logical thinking and intelligence (Bar-On, 2001). Emotion has a biological-adaptive function as well as a psychological-constructive function. It also plays a role in social interaction, personality functioning, achieving goals, and cognitive processing (Thompson, 1994). Emotions mediate between constantly changing situations and the individual's behaviour responses, and therefore serve as an important adaptive function to the individual.

Emotional intelligence is a meta-ability, which is a co-determinant for the extent to which a person can utilise his potential ability, including intellect. The emotionally intelligent individual perceives his or her own emotions accurately and makes use of integrated, sophisticated approaches for the regulation of his or her emotions in order to achieve important goals (Stuart & De Korte, 2000).

Goleman (1995) uses the term "self-awareness" to refer to an individual's continuous awareness of not only his own internal mood, but also his thoughts regarding that particular mood. The ability to recognise emotions in others play an important role in empathetic behaviour (Camras, Grow, & Ribordy, 1983; Salovey & Mayer, 1990). Empathy seems to be a central characteristic of emotionally intelligent behaviour (Salovey & Mayer, 1990).

The ability to process emotional content influences the individual's ability to think, plan ahead and solve problems, and is a determinant in terms of the extent to which the person will use his or her potential mental abilities. According to this, it seems that emotional intelligence is related to the individual's ability to obtain academic success (Stuart & De Korte, 2000).

A complex interrelation of variables is involved in the concept of academic performance. This emphasises the multidimensional nature thereof (Gupta, 1993). The group of variables most frequently associated with academic performance are cognitive factors (Badenhorst, 1993). The most common cognitive factors are intelligence, aptitude, the influence of prior academic performance, and competence. The impact of these factors is determined by certain non-cognitive factors (Smit, 1971).

Certain motivational, attitudinal and personality characteristics determine the extent to which the individual will be able to utilise his or her cognitive abilities (Botha, 1971). These factors, according to Erasmus and Lourens (1981), can either motivate, or prevent the individual from fulfilling his or her potential.

Supportive relationships offer students opportunities for building a variety of friendships, which help prevent vulnerability to stress, create opportunities for social integration and participation in campus life in general, and create the opportunity to experience a sense of progress in the academic sphere (Fleming, 1984).

Goleman (1996) suggests that emotionally intelligent individuals excel in their relationships, show remarkable leadership skills, and perform well. Emotional intelligence determines one's capacity to develop skills and competencies (Cadman & Brewer, 2001). It has been documented (Gross, 1992) that divergent thinking is an essential prerequisite for exceptional intellectual performance. Divergent thinkers tend to produce a wide variety of novel ideas and perform better at problems requiring creative solutions (Cadman & Brewer, 2001).

As mentioned before, academic performance depends on other factors besides intelligence. It has been widely assumed that all students at senior level are emotionally mature and intelligent, although it is clear that some students are more successful and perform better than others. This difference can be explained by emotional capability (Kapp, 2000).

Research indicates that optimised emotional intelligence distinguishes individual "star performers", and plays an important role in determining which organisations will outperform

their competitors (Kapp, 2000). Kapp (2000) explains that as work becomes more complex and collaborative, emotional competence will distinguish those who flourish from those who falter.

Senge (1990) links emotional intelligence to high levels of personal mastery. Emotional intelligence enables a person to choose the best alternative or option in the shortest time possible. It also enables an individual to come up with solutions to problems within a very short time frame (Senge 1990).

According to O'Neil (1996), there is a very definite relationship between emotional skills and academic performance. Emotional intelligence enables a person to demonstrate extensive knowledge and analytical expertise in a vast range of areas. Wong, Day, Maxwell, and Meara (1995) found the ability to understand other people's emotional states, to be a predictor of academic performance. Emotional intelligence is manifested in characteristics such as honesty, energy, trust, integrity, empathy and commitment. Emotions inspire and enliven good judgement and reasoning, in most cases, and are linked to success (Kapp, 2000).

Full-time and part-time students experience unique challenges while pursuing their academic careers. Students at different levels (junior or senior) also experience different life demands. According to Archer and Lamnin (1985), younger students are more concerned with grades, studying, and peer acceptance, while older students are more concerned about financial aspects.

Bar-On (1997, 2000) reports that emotional intelligence levels increase significantly from early adulthood to middle age. Students who persist in university are likely to possess higher levels of emotional intelligence at the end of their study programme than at the start thereof (Parker, Summerfeldt, Hogan, & Majeski, 2003). It can therefore be assumed that emotional intelligence is related to academic performance (Stuart & De Korte, 2000).

From the discussion above, it is evident that emotional intelligence plays a vital role in every organisation. A very clear problem remains that emotional intelligence of future employees cannot be developed until one has a typical profile of one's future workforce. Once this profile

has been identified, organisations can only benefit from high emotional intelligence levels in the workplace.

Future employees will bring distinct perspectives on life and work to one's organisation. Most future employees have, to a certain extent, been exposed to downsizing, mergers and computerisation, which could lead them to believe that organisations do not deserve their loyalty (Hawkins, 2001).

According to Hawkins (2001), new labour-market entrants believe that organisations have no loyalty towards their employees, and thus that they as employees have no future in any one organisation. Hawkins (2001) uses the term "entrepreneurial wanderlust" to explain the phenomenon of employees using each organisation as a stepping-stone to move on to the next organisation as soon as they feel that they have accomplished everything they could in that particular organisation.

Emotions that are effectively managed can drive trust, loyalty and commitment as well as many of the greatest productivity gains, innovations and accomplishments of individuals, teams and organisations (Cooper, 1997).

It can be assumed that optimism, self-efficacy, life satisfaction, and academic performance are influenced by emotional intelligence. From the discussion above, the assumption can be drawn that emotional intelligence will also have an influence on the psychological well-being of a person. This study will be based upon future employees in the field of economic sciences. A better understanding of the well-being of future employees, as well as an understanding of the factors that influence performance, will lead to better overall functioning in the workplace. The latter can result in better organisational effectiveness.

The following research questions emerge from the problem statement:

- How are emotional intelligence, optimism, life satisfaction, self-efficacy and psychological well-being conceptualised in literature?

- How valid and reliable is the 33-item measurement of emotional intelligence for a sample of potential future employees in economic sciences professions?
- How valid and reliable are the measures of optimism, life satisfaction and self-efficacy for a sample of potential future employees in economic sciences professions?
- What is the relationship between emotional intelligence, psychological well-being (*optimism, life satisfaction, self-efficacy*), and academic performance.

2. RESEARCH OBJECTIVES

Arising from the problem statement described above, the following general and specific aims are set for this research.

2.1 General Objective

The general aim of this research was to determine the relationship of emotional intelligence, optimism, life satisfaction and self-efficacy for a sample of students within the field of economics, as well as the validity and reliability of these measures.

2.2 Specific Objectives

- To conceptualise emotional intelligence, optimism, life satisfaction, self-efficacy, psychological well-being, and academic performance as pertaining to potential future employees in economic sciences professions.
- To determine the validity and reliability of the 33-item measurement of emotional intelligence for a sample of potential future employees in economic sciences professions.
- To determine the validity and reliability measures of optimism, life satisfaction and self-efficacy for a sample of potential future employees in economic sciences professions.
- To determine the relationship between emotional intelligence, psychological well-being (*optimism, life satisfaction, self-efficacy*), and academic performance.

3. RESEARCH METHOD

The research method consists of a literature review and an empirical study.

3.1 Phase 1: Literature Review

In Phase 1, a complete literature review regarding the following is obtained: the relationship between emotional intelligence, psychological well-being, academic performance, optimism, self-efficacy, and life satisfaction of university students in the field of economics.

3.2 Phase 2: Empirical Study

Phase 2 consists of the empirical study and comprises the research design, the participants, the measuring battery, and statistical analysis.

3.2.1 Research Design

A cross-sectional survey design was used to reach the objectives of this research. Cross-sectional designs are used for simultaneously examining groups of subjects at various stages, while the survey describes a technique of data collection in which questionnaires are used to gather data about the identified population (Burns & Grove, 1993). This design is well suited for the descriptive and predictive functions associated with correlational research, whereby relationships between variables are examined (Shaughnessy & Zachmeister, 1997).

3.2.2 Participants

Stratified, random samples of 341 students in the field of economics were taken at higher education institutions. The sample consisted mainly of Afrikaans-speaking, female students from the Potchefstroom campus. Most of the participants study accountancy. The mean age of the students was between 18 and 20 years.

3.2.3 *Measuring Battery*

- *Schutte Emotional Intelligence Scale* (SEIS) (Schutte, et al., 1998) assesses perception, understanding, expression, regulation and harnessing of emotions in the self and others. The brevity of the scale and its accumulating reliability and validity evidence makes this scale a reasonable choice for those who are seeking a brief self-report measure of global emotional intelligence. The model of emotional intelligence of Salovey and Mayer (1990) provides the conceptual foundation of the items used in this scale. A factor analysis of a larger pool of items suggested a one-factor solution of 33 items. The 33-item scale showed good internal reliability with two different samples. The measure also showed evidence of predictive validity, where college students' emotional intelligence scores predicted their end-of-the-year grade average. Potential uses of this scale involve exploring the nature of emotional intelligence, including the determinants of emotional intelligence, the effects of emotional intelligence, and whether emotional intelligence can be enhanced (Schutte, et al., 1998).
- *The Life Orientation Test–Revised* (LOT-R), a ten-item measure was developed by Scheier, Carver, and Bridges (1994) to measure dispositional optimism. Six items contribute to the optimism score and the remaining four items are fillers. The original Life Orientation Test (Scheier & Carver, 1985), which hypothesised a two-factor structure (*optimism* and *pessimism*), was questioned (Harju & Bolen, 1998). Follow-up analysis demonstrated a one-factor structure, indicating that the LOT-R is measuring a continuum of high, average and low optimism or pessimism (Scheier, et al., 1994). The LOT-R is measured on a five-point Likert Scale, ranging from 5 (strongly agree) to 1 (strongly disagree). The LOT-R was found to have adequate internal consistency (Cronbach alpha = 0,78) and excellent convergent and discriminant 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.
- *The Satisfaction with Life Scale* (SWLS) was used to measure satisfaction with life. The SWLS is a five-item instrument, which was developed by Diener, et al. (1985) to

measure global cognitive judgements of one's life. According to Diener, et al. (1985), the SWLS is designed around the idea that one should ask respondents about the overall judgements of their life in order to measure the concept of life satisfaction. Participants are asked to indicate their degree of agreement or disagreement on a seven-point Likert Scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Scores on the SWLS range from 5 to 35, with higher scores indicating greater life satisfaction. Diener, et al. (1985) reported a two-month test-retest correlation coefficient of 0,82 and a Cronbach alpha coefficient of 0,87. The inter-item correlation matrix was factor analysed, using principal axis factor analysis. According to the eigenvalues, a single factor emerged, accounting for 66% of the variance (Diener, et al., 1985).

- *The General Perceived Self-Efficacy Scale (GPSES)* (Schwarzer, 1993) was used to measure participants' generalised self-efficacy. The GPSES consists of 10 items. Schwarzer (1993) found alpha coefficients varying from 0,75 to 0,90 for the GPSES. By confirmatory factor analyses, the scale was found to be uni-dimensional in all sub-samples. The scale is not only reliable; it has also been proven that the scale correlates positively with self-esteem and optimism, and negatively with anxiety, depression and physical symptoms.
- *Academic Performance* was measured by obtaining students' academic records, and specifically the average of the previous study year. It was therefore feasible to include student numbers in the biographical data questionnaire.

3.2.4 Statistical Analysis

The statistical analysis was carried out with the help of the SPSS-program (SPSS Inc., 2003). The SPSS-program was used to carry out statistical analysis regarding reliability, validity, descriptive statistics, T-tests, analysis of variance, correlation coefficients and multiple regression analysis.

Descriptive statistics (e.g. means, standard deviations, range, skewness and kurtosis) and inferential statistics were used to analyse the data. Pearson correlation coefficients were computed to determine the relationship between variables.

Cronbach alpha coefficients were used to determine the internal consistency, homogeneity and uni-dimensionality of the measuring instrument (Clark & Watson, 1995). Alpha coefficients contain important information regarding the proportion of variance of the items of a scale, in terms of the total variance explained by the particular scale.

In terms of statistical significance it was decided to set the value at a 95% confidence interval level ($p \leq 0,05$). Effect size (Steyn, 1999) was used to decide on the practical significance of findings. Pearson product-moment correlation coefficients were used to specify the relationship between the variables. A cut-off of 0,30 (medium effect) (Cohen, 1988), was set for the practical significance or correlation coefficients.

A multiple regression analysis was used to determine the proportion of variance in the dependent variable (academic performance) that is predicted by the independent variables (emotional intelligence, optimism, life satisfaction and self-efficacy). The effect size (which indicates practical significance), in the case of multiple regressions, is given by the following formula:

$$F^2 = \frac{R^2}{(1 - R^2)}$$

A cut-off point of 0,35 (large effect) (Steyn, 1999) was set for the practical significance of F^2 .

The value of R^2 is used to determine the proportion of the total variance of the dependent variable that is explained by the independent variables. The F -test is used to test whether a significant regression exists between the independent and dependent variables. Steyn (1999) suggested that effect size be used together with multiple regressions, especially when working with the total population. Cohen (1988) suggested the following guidelines for effect size:

- $F^2 = 0,01$ – small effect
- $F^2 = 0,10$ – medium effect
- $F^2 = 0,35$ – large effect

4. RESEARCH PROCEDURE

The measuring battery was compiled. A letter requesting participation, motivating the research, was included. Ethical aspects regarding the research were discussed with the participants. The test battery was administered in small groups at the different venues on suitable dates.

5. CHAPTER DIVISION

Chapters are divided as follows:

Chapter 1: Introduction, Problem Statement, and Objectives

Chapter 2: Research Article

Chapter 3: Conclusion, Limitations, and Recommendations

6. CHAPTER SUMMARY

In this chapter, the problem statement and motivation for the research were discussed. The purpose of the research was formulated, the methodology of the research was outlined, and the methods used for the statistical analysis were described.

A research article on a multicultural study on emotional intelligence, psychological well-being, optimism, life satisfaction, self-efficacy, and academic performance of students in the field of economic sciences will be presented in Chapter 2.

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CHAPTER 2

RESEARCH ARTICLE

THE RELATIONSHIP BETWEEN PSYCHOLOGICAL WELL-BEING AND ACADEMIC PERFORMANCE OF UNIVERSITY STUDENTS*

N. VAN DER MERWE

C S JONKER

*WorkWell: Research Unit for People, Policy and Performance, faculty of Economic &
Management Sciences, North-West University*

ABSTRACT

The objective of this study was to determine the relationship between emotional intelligence, optimism, life satisfaction, self-efficacy and academic performance, and to compile a model of psychological well-being for university students in economic management sciences. A cross-sectional survey design was used. The participants ($N = 324$) were students from economic sciences fields. The Schutte Emotional Intelligence Scale, Life Orientation Test Revised, Satisfaction with Life Scale, and the General Perceived Self-Efficacy Scale were administered. The results showed a six-factor structure for the emotional intelligence measurement. Significant predictors of academic performance were Life Satisfaction, Optimism, Pessimism and Emotions-Others. Psychological well-being consisted of two dimensions namely Interpersonal and Intrapersonal.

OPSOMMING

Die doelwit van hierdie studie was om die verband tussen emosionele intelligensie, optimisme, lewenstevredenheid, self-effektiwiteit en akademiese prestasie te bepaal asook om 'n model van psigologiese welstand vir universiteit studente van ekonomiese bestuurs wetenskappe saam te stel. 'n Dwarsdeursnee-opnameontwerp is gebruik. Die deelnemers ($N = 324$) was studente in die ekonomiese wetenskap velde. Die Schutte-Emosionele-Intelligensieskaal, Hersiende Lewensorientasietoets, Lewenstevredenheidskaal en die Algemene-Observasieskaal van Self-Effektiwiteit was afgeneem. Die resultate het 'n ses-faktor struktuur vir die emosionele intelligensie meetinstrument gewys. Betekenisvolle voorspellers van akademiese prestasie was Lewenstevredenheid, Optimisme, Pessimisme en Emosies-Ander. Psigologiese welstand het bestaan uit twee faktore, naamlik Interpersoonlik en Intrapersoonlik.

As a result of the multiple and varied demands of a new social environment, the first few weeks in a new work environment can be a very stressful period for many new employees, especially new labour market entrants (Jay & D'Augelli, 1991). However, a supportive social context facilitates adjustment and well-being in the face of a wide variety of stressors (Burda, Vaux, & Schill, 1984; Kessler & McCleod, 1985). A supportive community offers new labour market entrants opportunities for friendships in a variety of settings in order to prevent vulnerability to stress. It also provides opportunities for social integration and participation in work-life as a whole and the opportunity to experience a sense of progress in performance (Fleming, 1984).

Education provides people with the skills and knowledge that enable them to lead fulfilling lives and to contribute to building the nation's wealth and better communities, which will support and enhance the unique identity, culture and values of South African organisations (Ministry of Education, 2001). The experiences acquired while attending university leads to new acquisitions and forms of behaviour, which may influence cognitive and psychosocial development (Creamer, 1990; Evans, Forney, & Dibrito, 1998). To understand how students mature, it is important to look at how they interact with the university and how they face its challenges - either from an affective and social, or from an academic perspective (Benjamin, 1995; Russel & Petrie, 1992).

Academic life is an important challenge as far as affective and interpersonal developments are concerned (Machado, Almeida, & Soares, 2002). The period spent at university is associated with the building of a life pattern and the development of a vocational and professional identity (Gordon, 1995; Sherman, 1994). According to Pascarella and Terezini (1991), the impact of academic experience varies according to each institution's context, but it is always dependent on the student's commitment, and his or her academic and social levels of integration. It is important to do an analysis of factors that affect academic performance – and more global psychological well-being – especially in relation to recruitment and retention of students (Gavala & Flett, 2005).

The impact of social and emotional competency on academic performance is one recent area of research. Early discussions on the relationship between emotional intelligence and academic

performance, in various educational contexts, were quick to claim a strong association (Elias, Bruene-Butler, Blum, & Schuyler, 1997; Goleman, 1995; Pasi, 1997).

More recently, a small body of empirical research has emerged to suggest that there is merit to the idea that emotional intelligence is associated with academic performance (Parker, Summerfeldt, Hogan, & Majeski, 2003). Petrides, Fredrickson, and Furnham (2004) examined the relationship among emotional intelligence, cognitive ability and academic performance. They found that emotional intelligence moderates the relationship between academic performance and cognitive ability. Furthermore, empirical evidence indicates that students who exhibit behaviour consistent with social and emotional competency (regular class attendance, completing work activities given in class, and involvement in extracurricular activities), are more apt to be successful at university (Finn & Rock, 1997). Students who perform academically well, report higher interpersonal adaptability and stress management abilities than people with academic problems (Parker, Creque, Barnhart, Harris, Majeski, Wood, Bond, & Hogan, 2004).

Bennet and Flett (2001) demonstrated that one factor that can moderate the relationship between study-related problems and academic performance is cultural identity. Another influential factor that affects academic performance and psychological well-being is the perceived academic control of the student (Gavala & Flett, 2005). High academic control is related to a wide range of positive outcomes (Perry, Hladkyj, Pekrun, & Pelletier, 2001). A third factor that leads to positive academic experiences is a sense of comfort with the university environment (Gloria & Kurpius, 2001). Comfort at university is a consistent predictor of academic enjoyment and performance. According to Gloria and Kurpius (2001), social support, together with comfort, is the strongest predictor of academic persistence. The essential component of a student's perceived comfort during university is when they perceive a greater fit between themselves and the culture within the university. This concept is referred to as cultural congruence (Gloria & Kurpius, 2001).

The concept of cultural congruence can be applied in the organisational setting as well. Especially in South Africa, with its immense cultural diversity, it is difficult for many new labour market entrants to adjust into an organisation. Due to the high unemployment rate and the

economic situation, many new labour market entrants feel that they do not have a future in any one organisation (Hawkins, 2001).

Hawkins (2001) uses the term “entrepreneurial wanderlust” to explain the phenomenon of employees using each organisation as a stepping stone to move on to the next organisation as soon as they feel that they have accomplished what they can in that particular organisation.

In order for future employees to exert commitment to their potential organisation, they should accept organisational goals, have the willingness to work hard for the organisation, and possess the desire to stay with the organisation (Meyer & Allen, 1991). This desire can be created by organisations that value the emotional aspects of their employees. In any work setting there may be emotions that are expected to be expressed, and these emotions may differ from the emotions actually expressed (Meyer & Allen, 1991).

Most organisations require the display of “appropriate” emotions (Cooper, Dewe, & O’Driscoll, 2001) and therefore future employees may experience psychological strain, seeing that they have been mostly inclined to express their true emotions instead of emotions that would have been more appropriate. Emotions that are effectively managed can drive trust, loyalty and commitment as well as many of the greatest productivity gains, innovations and accomplishments of individuals, teams and organisations (Cooper, 1997).

Emotional intelligence gives an individual a competitive edge (Goleman, 1997). The hypothesis is made that emotional intelligence increases performance over and above the level expected from general intelligence (Thi Lam & Kirby, 2002).

General intelligence is the ability to acquire knowledge and apply it in situations where needed (Thi, Lam & Kirby, 2002). There are two basic assumptions underlying the theory of general intelligence: a) people are born with a fixed, potential intelligence, and b) general intelligence can be measured (Gardner, 1998; Gottfredson, 1998).

According to Gardner (1998), general intelligence is the most effective predictor of individual performance. Gottfredson (1998) and Thi Lam and Kirby (2002) agree that general intelligence contributes significantly to the prediction of performance on a cognitive task. Emotional intelligence contributes greatly to individual cognitive-based performance (Thi Lam & Kirby, 2002).

Individuals high on emotional intelligence do not just contain and channel their emotions, but they energize and align it with the task at hand (Goleman, 1997). They internally encapsulate and integrate their emotions so that these emotions do not interfere with task performance. People high on emotional intelligence are less likely to experience paralyzing feelings of fear, negative emotions and high levels of anxiety, which all have negative effects on performance (Seipp, 1991; Thi Lam & Kirby, 2002). Therefore, it seems that higher emotional intelligence is associated with better cognitive performance (Thi Lam & Kirby, 2002).

According to Mayer, Salovey, and Caruso (2000), emotional intelligence influences work-related outcomes and interpersonal interactions. According to Goleman (1995; 1998) emotional intelligence is a predictor of life and work success. Due to the fact that emotional intelligence affects basically every aspect of work-life, employees high on emotional intelligence are labelled 'star performers'. Research done by Multi-Health Systems (2001), also demonstrated strong correlations between emotional intelligence and performance (Thi Lam & Kirby, 2002). The ability to process emotional content, influences the individual's ability to think, plan ahead and solve problems, and is determinant in terms of the extent to which the individual will use his or her potential mental abilities. According to this, it seems that emotional intelligence is related to the individual's ability to obtain academic success (Stuart & De Korte, 2000).

Academic performance is a multidimensional construct and consists of an inter-relation of variables (Gupta, 1993). Cognitive factors are the group of variables most frequently associated with academic performance (Badenhorst, 1993). The most common cognitive factors are intelligence, aptitude, the influence of prior academic performance, and competence. The impact of these factors is determined by certain non-cognitive factors (Smit, 1971). However, certain motivational, attitudinal and personality characteristics determine the extent to which the

individual will be able to utilise his or her cognitive abilities (Botha, 1971). Emotional intelligence also plays a role in the utilisation of cognitive abilities. When emotional intelligence is viewed from an ability-model perspective, it focuses on a person's skill in recognising emotional information, and applying it to abstract reasoning (Mayer & Salovey, 1997). Accessing, understanding and regulating emotions will promote emotional as well as intellectual growth (Mayer & Salovey, 1997).

It has been documented (Gross, 1992) that divergent thinking is an essential prerequisite for exceptional intellectual performance. Divergent thinkers tend to produce a wide variety of novel ideas and perform better at problems requiring creative solutions (Cadman & Brewer, 2001). People with high emotional intelligence capabilities are more likely to gain success in the workplace (Carmeli, 2003). Carmeli (2003) states that there is growing evidence suggesting that emotional intelligence has the potential to improve organisational, personal success as well as academic success.

As mentioned before, academic performance depends not only on intelligence, but on other factors as well. It has been widely assumed that all students at senior level are emotionally mature and intelligent, although it is clear that some students are more successful and perform better than others. This difference can be explained by emotional capability (Kapp, 2000). Research indicates that optimised emotional intelligence distinguishes individual "star performers", and plays an important role determining which organisations will outperform their competitors (Kapp, 2000). Kapp (2000) explains that as work becomes more complex and collaborative, emotional competence will distinguish those who flourish from those who falter.

Senge (1990) links emotional intelligence to high levels of personal mastery. Emotional intelligence enables a person to choose the best alternative or option in the shortest time possible. It enables an individual to come up with solutions to problems within a very short period of time (Senge 1990). According to O'Neil (1996) there's a very definite relationship between emotional skills and academic performance. Emotional intelligence enables a person to demonstrate extensive knowledge and analytical expertise in a vast range of areas. Wong, Day,

Maxwell, and Meara (1995) found the ability to understand other people's emotional states to be a predictor of performance.

However, due to organisational emphasis on rationality, emotional issues in the workplace are being neglected (Höpfl & Linstead, 1997). Even though organisations deny the relevance of moods, feelings and emotions, it is becoming increasingly evident that emotions play just as significant a role in organisations as they do in life in general (Muchinsky, Kriek, & Schreuder, 2003). According to Dulewicz and Higgs (2000), the concept of emotional intelligence was developed due to the inability of traditional measures of rational thinking to predict future success. Another reason which may have led to the development of the emotional intelligence concept is the fact that people have long been interested in the way individuals differ in terms of their emotions and emotional processing (Jung, 1983).

Emotional Intelligence

Emotional intelligence has been defined as the ability to adaptively perceive, understand, regulate and harness emotions within the self and others (Salovey & Mayer, 1990; Schutte, Malouff, Hall, Haggerty, Cooper, Golden, & Dornheim, 1998). Emotional intelligence refers to an array of non-cognitive skills, capabilities and competencies, which may have an influence on the way a person copes with pressures and demands within the environment (Martinez, 1997).

Emotional intelligence can be conceptualised and measured as ability (Ciarrochi, Chan, & Caputi, 2000; Mayer, Caruso, & Salovey, 2000) or as a personality trait (Schutte & Malouff, 1999; Schutte, et al., 1998). According to Spector (2003), emotional intelligence is a characteristic that falls between a personality trait and a cognitive ability.

A broader differentiation is between *trait* emotional intelligence and *information-processing* emotional intelligence. Trait emotional intelligence is manifested in specific traits or behaviours which a person exhibits – such as empathy, optimism, and assertiveness (Petrides & Furnham, 2000). It is embedded in the personality framework, and is measured by self-report inventories measuring specific behaviours (Bar-On, 1997; Salovey, Mayer, Goldman, Turvey, & Palfei, 1995). Information-processing emotional intelligence concerns the ability to identify, express

and label emotions (Petrides & Furnham, 2000). It is much more focussed and explicit, and can be assessed through measures of maximal performance.

Emotions are considered primary adaptive and motivating mechanisms. Emotions are part of logical thinking and intelligence (Bar-On, 2001). Emotion has a biological-adaptive function as well as a psychological-constructive function. Emotions also play a role in social interaction, personality functioning, achieving goals, and cognitive processing (Thompson, 1994). Emotions mediate between constantly changing situations and the individual's behaviour responses, and thus have an important adaptive function for the individual.

People do not choose their emotions and have little control over the emotions they experience because connections from the emotional system to the cognitive system are stronger than connections from the cognitive system to the emotional system (Le Doux, 1996). Once the cognitive system recognises these emotions, it guards against distracting emotions and builds on enhancing emotions; this facilitates task and group performance (Thi Lam & Kirby, 2002).

Positive emotions trigger upward spirals toward emotional well-being, in the sense that the effects of positive emotions accumulate and compound (Fredrickson & Joiner, 2002). Previous experiences of positive emotions broaden attention and cognition, and facilitate coping with adversity (Aspinwall, 1998). Improved coping predicts, in turn, future experiences of positive emotion (Stein, Folkman, Trabasso, & Richards, 1997). People build psychological resilience as this cycle continues. In the end this cycle leads to enhanced emotional well-being (Davis, Nolen-Hoeksema, & Larsen, 1998).

Emotional intelligence is a meta-ability, which is a co-determinant for the extent to which a person can utilise his or her potential ability, including intellect. The emotionally intelligent individual perceives his or her own emotions accurately and makes use of integrated, sophisticated approaches for the regulation of his or her emotions in order to achieve important goals (Stuart & De Korte, 2000).

Personal intelligence comprises intrapersonal and interpersonal intelligence (Gardner, 1983). Personal intelligence refers to an individual's ability to access his or her feelings, label those feelings, and then use them to guide action and behaviour (Gardner, 1983). These notions were theoretical forerunners to the concept of emotional intelligence (Bar-On, Brown, Kirkcaldy, & Thom , 2002). To be emotionally literate, it is necessary to know what one is feeling and what the cause of those feelings is (Steiner, 1984). According to Steiner (1984), emotional literacy is embedded in culture and can be learned.

Goleman (1996) suggests that emotionally intelligent individuals excel in their relationships, show remarkable leadership skills, and perform well. Emotional intelligence determines one's capacity to develop skills and competencies (Cadman & Brewer, 2001).

Characteristics such as honesty, energy, trust, integrity, empathy and commitment, amongst others, are demonstrated by means of emotional intelligence. Emotions inspire and enliven good judgement and reasoning, in most cases, and are linked to success (Kapp, 2000). The conclusion can be drawn that literature suggests a relationship between emotional intelligence and overall success (well-being and academic performance). From a positive psychology point of view, other factors that can contribute to well-being are life satisfaction (Spector, 2003; Goleman, 1995), optimism (Fredrickson & Joiner, 2002) and self-efficacy (Schwarzer, 1999).

Life Satisfaction

Satisfaction is a state of mind – a cognitive judgemental process by an individual (Saris, Veenhoven, Scherpenzeel, & Bunting, 1996). Life satisfaction can be seen as the degree to which a person positively evaluates the overall quality of his or her own life. Diener, Emmons, Larsen, and Griffen (1985) define life satisfaction as a global evaluation by the person, with regards to his or her own life. In other words, it refers to the degree to which an individual is satisfied with the life he or she leads.

Life satisfaction is considered an indicator of overall happiness and emotional well-being (Spector, 2003). Emotional well-being is also related to emotional intelligence (Spector, 2003).

Several authors have theorised that high emotional intelligence would lead to greater feelings of emotional well-being (Goleman, 1995; Saarni, 1999; Salovey & Mayer, 1990; Spector, 2003). People, who possess the ability to understand and regulate their emotions tend to maintain a better outlook on life (Elbert, Tucker, & Roth, 2002), and experience better emotional health (Schutte, Malouff, Simunek, McKenley, & Hollander, 2002). The conclusion can therefore be drawn that literature suggests a possible relationship between emotional intelligence and satisfaction with life.

Within positive psychology, a host of positive psychological factors have been studied over the last decade that have possible relationships with satisfaction. Factors such as optimism, spirituality and social support have shown to influence well-being (Fredrickson & Joiner, 2002). One positive emotion that creates psychological broadening (and increases the possibility that an individual will find positive meaning in subsequent events and experience additional positive emotions in the future) is optimism (Fredrickson & Joiner, 2002).

Optimism

Optimism in particular is linked to desirable outcomes such as achievement, good morale, improved health and coping with adversity (Carver, Pozo, Harris, Noriega, Scheier, Robinson, Ketchan, Moffat, & Clark, 1993; Chang, 1996; Lin & Peterson, 1990). There is substantial evidence that optimism is related to better outcomes, for example coping, satisfaction and psychological well-being, measured in a variety of ways across a variety of settings (Norem & Chang, 2002).

Optimism refers to a conviction that the future holds desirable outcomes, irrespective of one's personal ability to control those outcomes (Marshall & Lang, 1990). It is the degree to which an individual holds positive expectancy for the future (Scheier & Carver, 1987). Optimism is mostly linked to active, persistent, health-oriented coping (Harju & Bolen, 1998). Optimists rely more on strategies that could help to modify and control stressors, they normally seek information, and are more involved in planning and positive reframing (Jackson, Weiss, & Lindquist, 2001).

Attribution style is significantly predictive of psychological well-being (Cheng & Furnham, 2003). Attributing positive outcomes to oneself, and believing that positive outcomes will occur will increase psychological well-being (Cheng & Furnham, 2003). Optimism has also been identified as an important factor in physical health (Cassidy, 2000). Fry (1995) proved that optimism significantly moderates the relationship between daily hassles and self-esteem, and burnout and physical illness.

Optimism has been found to have a positive effect on personal adjustment, life satisfaction and overall well-being (Carver & Scheier, 2002). Elbert, et al., (2002) describe optimism as a person's positive outlook towards life events. It influences subjective experience when confronted with problems, and the actions one engages in when attempting to deal with these problems. The global confidence in one's coping ability is referred to as positive efficacy (Schwarzer, 1993).

Self-Efficacy

Self-efficacy can be described as a general, stable cognition that individuals carry, which reflects the expectation that they possess the ability to perform successfully in a variety of situations (Eden & Zuk, 1995). According to Gardner and Pierce (1998), frequent situation-specific experiences of personal success bring about generalised self-efficacy.

According to Bandura (1989), self-efficacy makes a difference in people's feelings, thoughts and actions. Regarding feelings, low self-efficacy is associated with depression, anxiety and helplessness. Low self-efficacy individuals also have low self-esteem and harbour pessimistic thoughts regarding their accomplishments and personal development, and tend to be more self-critical (Ganster & Schaubroeck, 1991). Although self-esteem and self-efficacy are not identical constructs, in their most generalised expressions they are virtually indistinguishable (Judge, Locke, Durham, & Kluger, 1998; Semmer, 1996).

In terms of thoughts, individuals with low self-efficacy experience uncertainty regarding the correctness of their thoughts and therefore rely more on social cues. Regarding action, people with high self-efficacy tend to choose more challenging tasks to perform. They set higher goals

for themselves and usually achieve these goals. These people seek social support by conforming to other's expectations. They recover more quickly from setbacks and maintain commitment to their goals (Schwarzer, 1999). Brockner (1988) argues that people with high self-efficacy are less susceptible to environmental events. A possible relationship therefore might exist between self-efficacy and academic performance, and between self-efficacy and emotional intelligence.

Although theories on self-efficacy are somewhat vague regarding possible effects of self-efficacy on employee attitudes, it seems plausible that the higher one's level of self-efficacy in some tasks, the higher one's positive affect associated with it (Lee & Babko, 1994; Schwoerer & May, 1996). According to Bandura (1989), employees with low self-efficacy levels doubt their own capabilities, shy away from difficult tasks, have low aspirations and weak commitment to the goals they wish to pursue.

Reduced efficacy indicates feelings of incompetence and lack of productivity (Maslach, Schaufeli, & Leiter, 2001). Some empirical evidence that emotional intelligence is associated with emotional well-being comes from research indicating that higher levels of emotional intelligence are associated with reduced cases of depression (Martinez, 1997), greater optimism (Schutte, et al., 1998) and greater life satisfaction (Ciarrochi, et al., 2000).

From the discussion above, the conclusion can be drawn that academic performance (possibly also job performance) is influenced by the well-being of individuals and their emotional competence. From the literature review, optimism, satisfaction with life and self-efficacy can also contribute to academic performance and emotional well-being. The goal of this study was to determine the relationship between these constructs within a population of future employees within the economic and management sciences. Future employees within the economic and management sciences are likely to be the business leaders of tomorrow. The results obtained from this research, may help to emphasise the importance of emotional intelligence and positive psychology constructs in the well-being of students or future employees, the work context, as well as life in general.

RESEARCH METHOD

Research Design

A cross-sectional survey design was used to reach the objectives of this research. Cross-sectional designs are used for simultaneously examining groups of subjects at various stages, while the survey describes a technique of data collection in which questionnaires are used to gather data about the identified population (Burns & Grove, 1993). This design is well suited for the descriptive and predictive functions associated with correlational research, whereby relationships between variables are examined (Shaugnessy & Zachmeister, 1997).

Participants

A sample of 341 students of the economical sciences was taken from higher education institutions. Only 324 of the responses could be utilised (95%). Table 1 gives the particulars of the participants.

Table 1

Characteristics of the Participants

Item	Category	Frequency (Percentage)
Age	16 – 18 years	174 (53,70%)
	19 – 21 years	128 (39,50%)
	22 – 25 years	9 (2,70%)
Gender	Male	155 (47,80%)
	Female	169 (52,20%)
Language	Afrikaans	201 (62,00%)
	English	17 (5,20%)
	African Languages	106 (32,70%)
Campus	Potchefstroom	207 (63,90%)
	Vanderbijlpark	117 (36,10%)
Degree	Economical Sciences	52 (15,90%)
	Accountancy	236 (72,80%)
	Business Economics	14 (4,30%)

The sample consisted mainly of Afrikaans-speaking (62,00%), female (52,20%) students from the Potchefstroom campus (63,90%). Most of the participants are studying accountancy (72,80%). The mean age of the students was between 18 and 20 years.

Measuring Instruments

The Emotional Intelligence Scale (Schutte, et al., 1998), the Life Orientation Test-Revised (Scheier, Carver, & Bridges, 1994), the Satisfaction with Life Scale (Diener, et al., 1985), and the General Perceived Self-Efficacy Scale (Schwarzer, 1993) were used to reach the objectives set for this study.

- *Emotional Intelligence Scale* (SEIS) (Schutte, et al., 1998) assesses perception, understanding, expression, regulation and harnessing of emotions in the self and others. The brevity of the scale and its accumulating reliability and validity evidence makes this scale a reasonable choice for those who are seeking a brief self-report measure of global emotional intelligence. The model of emotional intelligence of Salovey and Mayer (1990) provides the conceptual foundation of the items used in this scale. A factor analysis of a larger pool of items suggested a one-factor solution of 33 items. The 33-item scale, showed good internal reliability with two different samples. The measure also showed evidence of predictive validity, where college students' emotional intelligence scores predicted their end-of-the-year grade average. Potential uses of this scale involve exploring the nature of emotional intelligence, including the determinants of emotional intelligence, the effects of emotional intelligence and whether emotional intelligence can be enhanced (Schutte, et al., 1998).
- *The Life Orientation Test-Revised* (LOT-R), a ten-item measure was developed by Scheier, et al. (1994) to measure dispositional optimism. Six items contribute to the optimism score and four items are fillers. The original Life Orientation Test, (Scheier & Carver, 1985) as the LOT-R after a two-factor structure (*optimism* and *pessimism*), was questioned (Harju & Bolen, 1998). Follow-up analysis have demonstrated a one-factor structure, indicating that the LOT-R is measuring a continuum of high, average and low optimism or pessimism (Scheier, et al., 1994). The LOT-R is measured on a five-point Likert Scale, ranging from 5 = strongly agree to 1 = strongly disagree. The LOT-R was found to have adequate internal consistency (Cronbach's alpha = 0,78) and excellent convergent and discriminant 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.
- *The Satisfaction with Life Scale* (SWLS) was used to measure satisfaction with life. The SWLS is a five-item instrument, which was developed by Diener, et al. (1985) to measure global cognitive judgements of one's life. According to Diener, et al. (1985) the SWLS is designed around the idea that one should ask respondents about the overall judgements of their lives in order to measure the concept of life satisfaction. Participants

are asked to indicate their degree of agreement or disagreement on a seven-point Likert Scale, ranging from 1 = strongly disagree to 7 = strongly agree. Scores on the SWLS range from 5 to 35, with higher scores indicating greater life satisfaction. Diener, et al., (1985) reported a two-month test-retest correlation coefficient of 0,82 and a Cronbach alpha coefficient of 0,87. The inter-item correlation matrix was factor analysed, using principal axis factor analysis. According to the Eigenvalues, a single factor emerged, accounting for 66% of the variance (Diener, et al., 1985).

- *The General Perceived Self-Efficacy Scale (GPSES)* (Schwarzer, 1993) was used to measure participant's generalised self-efficacy. The GPSES consists of 10 items. Schwarzer (1993) found alpha coefficients varying from 0,75 to 0,90 for the GPSES. By confirmatory factor analyses it was found that the scale is uni-dimensional in all sub samples. The scale is not only reliable; it has also proven that the scale correlates positively with self-esteem and optimism and negatively with anxiety, depression and physical symptoms.
- *Academic Performance* was measured by obtaining student's academic records and specifically by the average of the previous study year. It was therefore feasible to include student numbers in the biographical data questionnaire.

Statistical Analysis

The statistical analysis was carried out with the help of the SPSS-program (SPSS Inc., 2003). The SPSS-program was used to carry out statistical analysis regarding reliability, validity, descriptive statistics, T-tests, analysis of variance, correlation coefficients and multiple regression analysis.

Descriptive statistics (e.g. means, standard deviations, range, skewness and kurtosis) and inferential statistics were used to analyse the data. Pearson correlation coefficients were computed to determine the relationship between variables.

Cronbach alpha coefficients were used to determine the internal consistency, homogeneity and uni-dimensionality of the measuring instrument (Clark & Watson, 1995). Alpha coefficients contain important information regarding the proportion of variance of the items of a scale in terms of the total variance explained by the particular scale.

In terms of statistical significance it was decided to set the value at a 95% confidence interval level ($p \leq 0,05$). Effect size (Steyn, 1999) was used to decide on the practical significance of findings. Pearson product-moment correlation coefficients were used to specify the relationship between the variables. A cut-off of 0,30 (medium effect) (Cohen, 1988), was set for the practical significance or correlation coefficients.

A multiple regression analysis was used to determine the proportion of variance in the dependent variable (academic performance) that is predicted by the independent variables (emotional intelligence, optimism, life satisfaction and self-efficacy). The effect size (which indicates practical significance), in the case of multiple regression, is given by the following formula:

$$F^2 = \frac{R^2}{(1 - R^2)}$$

A cut-off point of 0,35 (large effect) (Steyn, 1999) was set for the practical significance of F^2 .

The value of R^2 was used to determine the proportion of the total variance of the dependent variable that is explained by the independent variables. The F -test was used to test whether a significant regression exists between the independent and dependent variables. Steyn (1999) suggested that effect size be used together with multiple regressions, especially when working with the total population. Cohen (1988) suggested the following guidelines for effect size:

- $f^2 = 0,01$ – small effect
- $f^2 = 0,10$ – medium effect
- $f^2 = 0,35$ – large effect

RESULTS

A simple factor analysis was done on the SEIS. Six factors (with Eigenvalues higher than 1) were extracted explaining 45,24% of the variance (Vosloo, 2005). These factors were labelled Positive Affect, Emotions-Others, Happy Emotions, Emotions-Own, Non-Verbal Emotions, and Emotional Control.

The descriptive statistics and alpha coefficients of the SEIS, LOT-R, SWLS, and GPSES are given in Table 2.

Table 2

Descriptive Statistics and Alpha Coefficients of the SEIS, LOT-R, SWLS and GPSES

Item	Mean	SD	Skewness	Kurtosis	α
SEIS					
Positive Affect	33,64	4,91	-0,94	1,13	0,73
Emotions-Others	28,28	5,47	-0,25	0,04	0,67
Happy Emotions	17,41	3,37	-0,54	0,16	0,63
Emotions-Own	20,72	4,52	-0,73	0,51	0,63
Non-Verbal Emotions	11,43	3,11	-0,12	-0,47	0,56
Emotional Control	18,20	3,57	-0,87	1,11	0,54
LOT-R					
Optimism	11,58	2,02	-0,37	0,10	0,52
Pessimism	8,28	2,47	-0,02	-0,21	0,54
SWLS					
Life Satisfaction	20,19	5,56	-0,63	0,26	0,75
GPSES					
Self-Efficacy	31,43	4,42	-0,58	0,75	0,80

Table 2 shows that acceptable Cronbach alpha coefficients were obtained, which compare reasonably well with the guideline of 0,70 (0,55 in basic research), demonstrating that a large

portion of the variance is explained by the dimensions (internal consistency of the dimensions) (Nunnally & Bernstein, 1994), except for Emotional Control, Optimism and Pessimism. It is evident from Table 2, that most of the scales of the measuring instruments have relatively normal distributions, with low skewness and kurtosis.

The product-moment correlation coefficients between emotional intelligence, optimism, satisfaction with life, self-efficacy, and academic performance are given in Table 3.

Table 3

Product-Moment Correlation Coefficients between the SEIS, LOT-R, SWLS, GPSES, and Academic Performance

Item	1	2	3	4	5	6	7	8	9	10
1. Positive Affect	.	.	.	.	.	.	.	.	.	.
2. Emotion Others	0,35**	.	.	.	.	.	.	.	.	.
3. Happy Emotions	0,42**	0,43**	.	.	.	.	.	.	.	.
4. Emotions-Own	0,43**	0,43**	0,38**	.	.	.	.	.	.	.
5. Non-Verbal Emotions	0,31**	0,29*	0,32**	0,33**	.	.	.	.	.	.
6. Emotional Control	0,49**	0,26*	0,38**	0,34**	0,31**	.	.	.	.	.
7. Optimism	0,54***	0,14*	0,31**	0,32**	0,21*	0,42**	.	.	.	.
8. Pessimism	-0,30*	-0,18*	-0,18*	-0,20*	-0,26*	-0,30*	-0,25*	.	.	.
9. Life Satisfaction	0,29*	0,30*	0,28*	0,30*	0,23*	0,32**	0,33**	-0,31**	.	.
10. Self-Efficacy	0,53***	0,33**	0,37**	0,31**	0,31**	0,57***	0,40**	-0,31**	0,40**	.
11. Academic Performance	0,09	0,24*	0,14*	0,18*	0,13*	0,12*	0,01	-0,24*	0,31**	0,13*

* $p \leq 0,05$ – statistically significant

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

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

Inspection of Table 3 indicates that Positive Affect is significantly positively related (large effect) to Optimism and Self-Efficacy and significantly positive related (medium effect) to Emotions-Others, Happy Emotions, Emotions-Own, Non-Verbal Emotions and Emotional Control. Emotions-Others is significantly positively related (medium effect) to Happy Emotions, Emotions-Own and Self-Efficacy. Happy Emotions is significantly positively related (medium effect) to Emotions-Own, Non-Verbal Emotions, Emotional Control, Optimism and Self-

Efficacy. Emotions-Own is significantly positively related (medium effect) to Non-verbal Emotions, Emotional Control, Optimism and Self-Efficacy. Non-verbal Emotions significantly positively related (medium effect) to Emotional Control and Self-Efficacy.

Emotional Control significantly positively related (large effect) to Self-Efficacy and significantly positively related (medium effect) to Optimism and Life Satisfaction. Optimism significantly positively related (medium effect) to Life Satisfaction and Self-Efficacy.

Pessimism is significantly negatively related (medium effect) to Life Satisfaction and Self-Efficacy. Life satisfaction is significantly positively related (medium effect) to Self-Efficacy and Academic Performance.

A multiple linear regression analysis (R^2) was used to determine the proportion of the total variance of academic performance that is explained by the rest of the variables. The effect size, which indicates practical significance in the case of multiple regression analysis, is given by the following formula (Cohen, 1988):

$$f^2 = \frac{R^2}{(1-R^2)}$$

A guideline value of $f^2 = 0,01$ for a small effect, $f^2 = 0,15$ for a medium effect, and $f^2 = 0,35$ for a large effect, was set for practical significance.

The results of the regression analysis with academic performance as the dependent variable, and emotional intelligence, optimism, life satisfaction and self-efficacy as independent variables are depicted in Table 4.

Table 4

Multiple Linear Regression with Academic Performance as Dependent Variable (DV) and Emotional Intelligence, Optimism, Life Satisfaction and Self-Efficacy as Independent Variables (IV)

Variable	Parameter	Std. Err.	T	p
DV = Academic Performance, IV = Self-efficacy, Life satisfaction, Optimism, Pessimism, Positive Affect, Emotion-Others, Happy Emotions, Emotion-Own, Non-Verbal Emotions and Emotional Control $F = 5,46^{++}$ $R^2 = 0,16$				
SELFEFF	-0,01	0,02	-0,52	0,600
LIFESAT	0,05	0,01	4,14	0,000
Opt	-0,07	0,03	-2,06	0,040
Pes	-0,07	0,03	-2,90	0,004
POS_AFF	-0,01	0,02	-0,40	0,689
EMOT_OTHERS	0,03	0,01	2,14	0,033
HAP_EMOT	0,01	0,02	0,32	0,752
EMOT_OWN	0,01	0,02	0,93	0,353
NON_VERBAL	0,003	0,02	0,16	0,875
EMOT_CONTROL	0,004	0,02	0,21	0,832

* Statistically significant – $p < 0,05$

+ $f^2 = 0,15$ – practically significant (medium effect)

++ $f^2 = 0,15$ – practically significant (large effect)

Table 4 shows that Self-efficacy, Life satisfaction, Optimism, Pessimism, Positive Affect, Emotion-Others, Happy Emotions, Emotion-Own, Non-Verbal Emotions and Emotional Control, predict 16% of the variance in Academic Performance. Significant predictors of Academic Performance are Life Satisfaction, Optimism, Pessimism and Emotions-Others.

A second order factor analysis was done on the factors of the SEIS, LOT-R, GPSES, and the SWLS. Two factors were extracted explaining 50,95% of the variance. These factors were called *Interpersonal* Factors and *Intrapersonal* Factors. On the Intrapersonal Factor, the following factors loaded: Emotions-Others, Happy Emotions, Emotions-Own and Non-Verbal Emotions. Self-Efficacy, Life Satisfaction and Optimism, Positive Affect and Emotional Control loaded on the Interpersonal Factor. It is evident from the above that psychological well-being consisted out of two dimensions namely Interpersonal and Intrapersonal aspects.

DISCUSSION

The concept of emotional intelligence has evoked considerable debate (Van der Zee, Thijs, & Schakel, 2002). The present study examined the validity and reliability of a 33-item measurement of emotional intelligence. Departing from the definition of Salovey and Mayer (1990), in the present study emotional intelligence was defined as the ability to perceive one's own and others' emotions, to interpret one's own emotions and the emotions of others, and to cope with the emotions of the self and of others effectively. This definition reflects, on the one hand, the distinction between the cognitive process of monitoring and interpreting emotions and the behavioural process of reacting effectively in situations that are emotionally challenging, and, on the other hand, the distinction between emotions of the self and others.

Previous research indicated a one-factor (Cakan & Altun, 2005), a three-factor (Austin, Saklofske, Haug, & McKenny, 2004), or a four-factor structure (Chan, 2004) of the Emotional Intelligence Scale. In a South African sample of university students, a six-factor structure was found for the Emotional Intelligence Scale (Vosloo, 2005).

Based on both conceptual and empirical grounds, item 33 was eliminated from the original SEIS, resulting in a 32-item scale being fitted to the data in the post hoc analysis. Problems that were found might be related to the ambivalent nature of this item (Vosloo, 2005). The particular item may be problematic, due to the fact that it does not correspond to the conceptual domain of the particular dimension. However, it is more likely that the item is somewhat ambiguous, or that it is either sample- or country-specific (Vosloo, 2005).

The deletion of the item from the SEIS for reasons of bias and model-fit improvement resulted in the sacrifice of model parsimony, in other words, relationships have been eliminated which could be viewed as an erosion in meaning of the emotional intelligence construct. It is possible, due to relatively small sample size and sampling procedure (subgroup representation), that these findings could have been obtained by pure chance. According to Vosloo (2005), problems with some of the items may be related to words that some of the participants found difficult to understand and/or interpret.

Previous research (Van der Zee, et al., 2002) that resulted in three factors (*Empathy, Autonomy, and Emotional Control*), corresponds to some of the six factors found in this study done on a sample of South African students. *Empathy* refers to the ability to recognise emotional states of others and to show sensitivity to these emotions. Related conceptualisations of this emotional intelligence dimension concern interpersonal aspects (Bar-On, et al., 2002; Gardner, 1983), which are similar to the findings in the current study. *Autonomy* was defined as self-motivational and autonomous behaviours and cognitions. *Emotional Control* refers to keeping calm and retaining a high level of performance under stress, and to dealing with these stresses in the social environment (Van der Zee, et al., 2002).

Similar to the findings of this study done on a sample of South African students, Van der Zee, et al., (2002) found that the dimensions included both behaviours and the preceding cognitions, and although Empathy particularly seems to refer to the emotions of others, and autonomy to one's own emotions, the dimension of Emotional Control includes both regulating one's own emotions and regulating the emotions of others.

In the current study a simple factor analysis was done on the Emotional Intelligence Scale (SEIS). Six factors were extracted (Vosloo, 2005). These factors were labelled *Positive Affect, Emotions-Others, Happy Emotions, Emotions-Own, Non-Verbal Emotions, and Emotional Control*.

All the instruments used in the current study were found reliable, demonstrating that a large portion of the variance was explained by the dimensions (internal consistency of the dimensions) (Nunnally & Bernstein, 1994), except for Emotional Control, Optimism and Pessimism.

Similar to previous studies done on the relationship between emotional intelligence and academic performance (Cantor & Harlow, 1994; Cantor & Kihlstrom, 1987; Lohman, 1993), the current study failed to establish support for emotional intelligence within the framework of cognitive abilities. Consistent with these findings, Schutte, et al. (1998) found no meaningful relationship between emotional intelligence and cognitive intelligence. Van der Zee, et al., (2002) also found no significant relationships.

The reason for these findings may be that other factors than emotional intelligence (or factors within emotional intelligence itself) may account for success in academic performance. As indicated by the results, the Emotions-Others factor in emotional intelligence could be explored further as a possible predictor of academic success. It could also be that general mood or some kind of “happiness” factor is the contributor to academic performance - as indicated by the positive relationship between Academic Performance, Life Satisfaction, Optimism and Emotions-Others, and the negative relationship between Academic Performance and Pessimism.

A second-order factor analysis was performed on the factors of the SEIS, LOT-R, GPSES, and the SWLS. Two factors were extracted. These factors were labelled Interpersonal Factors and Intrapersonal Factors. On the Intrapersonal Factor, the following factors loaded: Emotions-Others, Happy Emotions, Emotions-Own and Non-Verbal Emotions. Self-Efficacy, Life Satisfaction, Optimism, Positive Affect and Emotional Control loaded on the Intrapersonal Factor.

It is evident from the above that psychological well-being consisted of two dimensions namely *Interpersonal* and *Intrapersonal* factors. Emotional intelligence are positively related to psychological well-being (Carmeli, 2003; Ciarrochi, Deane, & Anderson, 2002) in the sense that emotional intelligence may protect people from stress and lead to better adaptation (Ciarrochi, et al., 2002).

Emotional intelligence consists of intrapersonal factors and interpersonal factors, which means that emotional intelligence refers to the ability to recognise and label one's own emotions, as well as the ability to understand other individual's emotions and intentions. Therefore, it is not surprising that this two-factor structure was found.

RECOMMENDATIONS

Only a few studies have examined the relationship between emotional intelligence and academic performance, and in general these studies failed to establish any support for emotional intelligence contributing to academic performance. There is a definite need for future studies among students - particularly final year students or post graduate students. If such profiles can be developed for potential new labour market entrants, organisations can benefit from the information provided.

The study sample was very homogeneous. All the students in the sample were first-year students. Future studies should focus on the valuable contribution that a study can make if focused on undergraduate and post graduate students, and on the impact of such information on the organisation. It should be interesting to see how the emotional intelligence levels vary from first-year students to final-year students. Future studies should also include larger samples.

The fact that pessimism was negatively related to academic performance should be a warning to universities to strive to establish and maintain a positive learning environment in order to improve the morale of the students. In a positive environment, students are more likely to have a positive view and outlook, and therefore may perform better academically.

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CHAPTER 3

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The purpose of this chapter is to provide an analysis and discussion of the literature and empirical results of the study. Conclusions are made with regard to the set research objectives. The first part of the chapter answers the research questions put forth in the first chapter. After the conclusions have been discussed, the limitations of the study will be pointed out. Finally, recommendations for the organisation and future studies are made.

3.1 CONCLUSIONS

Conclusions are made in the following sections with regard to the specific objectives and the empirical findings obtained in the present study.

- *To conceptualise emotional intelligence, optimism, life satisfaction and self-efficacy, as pertaining to students in the field of economics.*

Emotional intelligence is a cluster of traits and abilities relating to the emotional side of life – abilities such as awareness and management of one’s own feelings and emotions, being able to motivate oneself and restrain one’s impulses, recognition and management of others’ emotions, and handling interpersonal relationships in an effective manner (Bar-On, 2001). Emotional intelligence is the ability to adaptively perceive, understand, regulate and harness emotions within the self and others (Schutte, Malouff, Simunek, McKenley, & Hollander, 2002).

Optimism refers to a conviction that the future holds desirable outcomes, irrespective of one’s personal ability to control those outcomes (Marshall & Lang, 1990). Attribution style is significantly predictive of psychological well-being (Cheng & Furnham, 2003), and attributes for positive outcomes have a stronger effect on happiness than attributes for negative outcomes. Elbert, Tucker, and Roth (2002) describe optimism as a person’s positive outlook towards life events. It influences subjective experience when confronted with problems, and the actions one

engage in when attempting to deal with these problems. Attributing positive outcomes to oneself and believing that positive outcomes will occur, will increase psychological well-being (Cheng & Furnham, 2003). Optimism has also been identified as an important factor in physical health (Cassidy, 2000). Students, who are positive about the results they will obtain during examination periods, will be more likely to experience psychological well-being, than students who mostly expect negative outcomes. Optimistic students will also be more likely to deal effectively with problems like strenuous time limits, or an increased workload.

Satisfaction is a state of mind – a cognitive judgemental process by an individual (Saris, Veenhoven, Scherpenzeel, & Bunting, 1996). Life satisfaction can be seen as the degree to which a person positively evaluates the overall quality of his or her own life. Diener, Emmons, Larsen, and Griffen (1985) define life satisfaction as a global evaluation by the person, with regard to his or her own life. In other words it refers to the degree to which a person likes the life he or she leads. Life satisfaction is considered an indicator of overall happiness and psychological well-being (Spector, 2003). When students feel satisfied with their studies and the university experience, they will be more likely to experience greater overall happiness and psychological health.

Self-efficacy can be described as a general, stable cognition that individuals carry, which reflects the expectation that they possess the ability to perform successfully in a variety of situations (Eden & Zuk, 1995). According to Gardner and Pierce (1998), frequent situation-specific experiences of personal success bring about generalised self-efficacy. According to Bandura (1989) self-efficacy makes a difference in people's feelings, thoughts and actions. Low self-efficacy is associated with depression, anxiety and helplessness. Such students will be likely to have low self-esteem and harbour pessimistic thoughts regarding their accomplishments and personal development, and they tend to be more self-critical (Ganster & Schaubroeck, 1991). Students with low self-efficacy will experience uncertainty regarding the correctness of their thoughts and will therefore rely more on social cues. Students with high self-efficacy tend to choose more challenging tasks to perform. They set higher goals for themselves and achieve it.

- *To determine the validity and reliability of the 33-item measurement of emotional intelligence for a sample of students in the field of economics.*

The results indicated a six-factor structure for emotional intelligence among students. Various previous studies concluded a one-factor (Cakan & Altun, 2005) or a three-factor structure (Austin, Saklofske, Haung, & McKenny, 2004). The fact that the results found in the study on a sample of South African students (Vosloo, 2005) confirmed a six-factor structure may be due to the fact that validation of a measurement instrument in one population does not guarantee validation in another. The same can be said for different cultural groups (Vosloo, 2005). The validity analysis revealed that all the alpha scores were relatively acceptable. It can therefore be concluded that the SEIS as a six-factor model, as developed in this research, is a reliable and valid measuring instrument for students.

- *To determine the reliability and validity of measures of optimism, life satisfaction and self-efficacy for a sample of potential future employees in economical sciences professions.*

The Life Orientation Test–Revised was developed by researchers to measure dispositional optimism (Scheier, Carver, & Bridges, 1994). A two-factor structure was shown to underlie the LOT-R. The two factors were identified as Optimism and Pessimism. Both these factors had acceptable alpha values as well as an adequate mean, confirming the reliability and validity of the measuring instrument.

The Satisfaction with Life Scale was developed by Diener, et al., (1985) to measure global cognitive judgements of one’s life. Consistent with the test developers, the confirmatory factor analysis of the SWLS resulted in a single factor. Therefore this instrument was also shown to be valid and reliable for students.

The General Perceived Self-Efficacy Scale was developed to measure participant’s generalized self-efficacy. Consistent with the test developer (Schwarzer, 1993) this measuring instrument was found to have a uni-dimensional structure. The factor showed an adequate mean and

acceptable alpha scores, which confirm that this instrument was also shown to be valid and reliable for students.

- *To determine the relationship between emotional intelligence, psychological well-being (optimism, life satisfaction, self-efficacy) and academic performance.*

In this study an attempt was made to determine if emotional intelligence could predict the academic performance of students. Regarding the interaction of emotional intelligence and academic performance, no significant relationship was found, except for the factor Emotions-Others, which showed a positive relationship with Academic Performance. This shows that other factors rather than emotional intelligence contribute to academic performance. This may be due to the fact that previous research focused on the total emotional intelligence score and did not identify which emotional intelligence factors contribute to academic performance (Gavala & Flett, 2005). It may be that factors in emotional intelligence, in stead of the total emotional intelligence contribute to academic performance, like for instance positive feelings.

Positive Affect showed to be positively related to Optimism and Self-Efficacy, which shows that positive emotions could lead to greater feelings of optimism for the future and greater feelings for achieving personal success.

Optimism shows a positive relation to Life Satisfaction and Self-Efficacy, which shows that when students are optimistic regarding their results and their studies, they will be more inclined to feel satisfied with their lives as a whole, and have greater feelings of control over their lives.

3.2 LIMITATIONS

The research design used for this study is a cross-sectional survey design. This design has been widely criticised by various researchers (Schaufeli & Enzmann, 1998). Longitudinal studies are more advisable. The results which this study was based upon were solely obtained through self-report questionnaires, which mean that the results are mainly based on the feelings and opinions of the participants.

Inherent to all self-report measures is the potential problem that it may substantially overlap with optimism and general positive mood (Ciarrochi, Deane, & Anderson, 2002). People completing self-report questionnaires are more likely to give an inaccurate description of themselves than the description an outsider would give of the same person (Hofstee, 1994; Jones & Nisbett, 1972).

The participants were all first year students which mean that the sample was very homogeneous. First year students may not be as certain about the future, than for instance a final year student. Emotional intelligence levels also seems to increase with age (Bar-On, 1997; 2000), which also gives an indication that the participants may not have been as emotionally mature as what would have been ideal for this study. The range of cognitive abilities may also be restricted due to the fact that all respondents were students (Van der Zee, Thijs, & Schakel, 2002). Problems with generalisation could also be accounted for.

Other factors could have had an impact on academic performance and psychological well-being that this study did not take into consideration. Other previous research made use of the total emotional intelligence score on larger samples (Davies, Stankov, & Roberts, 1998; Mayer & Geher, 1996). The problem of limited research regarding the causes, effects and underlying processes of psychological well-being and academic performance was experienced during this study.

3.3 RECOMMENDATIONS

3.3.1 Recommendations for the Organisation

- In practice, these results could be beneficial to the organisation in the sense that once the levels of emotional intelligence and well-being of future employees are determined, interventions can be implemented to increase well-being and increase the performance of the employees.
- From the discussions in the previous chapters it became evident that emotional intelligence is related to psychological well-being (Diener, Suh, Lucas, & Smith, 1999; Saarni, 1999), and a healthy employee will be more likely to experience satisfaction

(Spector, 2003), be more optimistic (Norem & Chang, 2002) and perform better (Carver, Pozo, Harris, Noriega, Scheier, Robinson, Ketchan, Moffat, & Clark, 1993; Chang, 1996).

3.3.2 Recommendations for Future Research

- Future research needs to focus on the different levels of well-being in different occupations in order to identify whether there are any significant differences.
- Due to the fact that other previous studies focused solely on the total emotional intelligence score, it is important for future research to focus on which factors of emotional intelligence do in fact play a role in the prediction of academic performance.
- Future research should focus more on the role of positive experiences in academic performance and performance in the workplace.
- Future research should be done on the validity of measures within the South African context, seeing that South Africa is one of the countries with the richest cultural diversity.
- There should be researched into what other factors may influence well-being and what factors underlie life-satisfaction, self-efficacy and optimism.
- A comparative and cross-cultural study should be done on optimism, life satisfaction and self-efficacy within different occupations and sectors.
- The relationship between emotional intelligence, optimism, life satisfaction and self-efficacy should be further researched to determine whether higher levels will contribute to academic performance.
- Further studies on the internal consistency, constructs, and content validity of the SEIS are required.
- A study between academic performance and the relationship between constructs such as “Happiness” and “Positive Emotions” from a positive psychology paradigm, will add value.
- The version (40+ Items) should be used in future studies to measure emotional intelligence, and more items should be reversed.

- The study can be repeated in a work setting and academic performance can be replaced by overall work performance.
- Academic performance, optimism, life satisfaction and self-efficacy should be researched in relation to constructs such as study resources and demands, coping, social support and the role of psychological strengths.

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