

# **The dynamics of psycho-social well-being in Afri Twin schools**

**Werner de Klerk**

**M.A. (Research Psychology)**

**12998699**

**Thesis (article format) submitted in fulfillment of the requirements for the  
degree *Philosophiae Doctor* in Psychology at the Potchefstroom Campus of  
the North-West University**

**Supervisor: Dr A. W. Nienaber**

**Co-supervisor: Prof Q. M. Temane**

**April 2013**

## Acknowledgements

In the first instance, I wish to thank my Heavenly Father for the talents He has bestowed on me and the ability to write this thesis. Without Him, I am nothing.

I would like to give thanks to the following people and institutions:

- Dr. Alida W. Nienaber and Prof. Q. Michael Temane for all their support throughout the whole process, and for always being there when I needed them.
- My parents (Samuel de Klerk and Irma de Klerk) for their prayers, support, love, positivity and believing in me when I could not believe in myself. Good parents are the silent heroes of this world, and a blessing from God.
- To all my friends, for always listening and asking how I am doing. Their kind words, positivity and support kept me going when I needed it the most.
- My family for their love and support.
- Ms, Jayne Martin, the founder of Afri Twin for all her support and kindness.
- All the participants for their time and effort.
- The North-West University for financial support during 2010-2013.
- Melanie Terblanche for the language editing of this thesis.

### Proverbs 3:5-6

**"Trust in the Lord with all your heart and lean not on your own understanding; in all your ways acknowledge Him and He will make your paths straight."**

## Contents

|   |     |
|---|-----|
| <b>Acknowledgement</b>  | i   |
| <b>Summary</b>  | iii |
| <b>Opsomming</b>  | vi  |
| <b>Preface</b>  | ix  |
| <b>Letter of permission</b>   | x   |
| <b>Section 1: Introduction</b>  | 1   |
| <b>Section 2: Article 1: The psychometric properties of the Adapted and Revised<br/>Organisational Climate Description Questionnaire (AAR OCDQ)</b> | 20  |
| 2.1 Guidelines for authors: <i>Journal of Psychology in Africa</i>  | 21  |
| 2.2 Manuscript: The psychometric properties of the Adapted and Revised<br>Organisational Climate Description Questionnaire (AAR OCDQ)               | 25  |
| <b>Section 3: Article 2: The prevalence of well-being on teachers in Afri Twin schools<br/>as well as non Afri Twin schools</b>                     | 47  |
| 3.1 Guidelines for authors: <i>Journal of Psychology in Africa</i>  | 48  |
| 3.2 Manuscript: The prevalence of well-being on teachers in Afri Twin schools as<br>well as non Afri Twin schools                                   | 52  |
| <b>Section 4: Article 3: Guidelines for promoting resilience in South African schools<br/>through the Afri Twin project</b>                         | 83  |
| 4.1 Guidelines for authors: <i>South African Journal of Education</i>   | 84  |
| 4.2 Manuscript: Guidelines for promoting resilience in South African schools<br>through the Afri Twin project                                       | 87  |
| <b>Section 5: Conclusion</b>  | 125 |
| <b>Complete reference list</b>  | 131 |
| <b>Appendix</b>   | 148 |

## Summary

### **The dynamics of psycho-social well-being in Afri Twin schools**

*Keywords:* Afri Twin, psychometric properties, measures, school climate, social well-being, resilience

This study, presented in the format of three articles, contributed to the measuring of psycho-social well-being in Afri Twin schools. The literature points to a serious lack of studies measuring the psychosocial well-being of teachers and possible interventions to alleviate their challenges. The context of the study is the Afri Twin project. The Afri Twin project is a collaboration between a British school, a South African town/city school, and/or a school from a township or rural community in South Africa. The intention of Afri Twin is to create camaraderie between school principals, teachers and learners/students in South African and British schools. As the relationships between the different schools develop, schools will have the opportunity to visit one another, exchange experiences and teaching ideas, and gain first-hand experience of the different conditions in which the individual schools function.

The first article determined the psychometric properties of the Adapted and Revised Organisational Climate Description Questionnaire (AAR OCDQ), and was validated for school climate as experienced by teachers. Participants were 394 school teachers (72 male and 322 female) from 40 schools in South Africa. The AAR OCDQ correlated positively with other measures of optimal functioning (The Mental Health Continuum - Short Form [MHC-SF], the Coping Self-Efficacy Scale [CSE], and the Core Self-Evaluations Scale [CSES]). The internal consistency and factor structure were determined as well as the evidence for

concurrent validity. The results of the study indicated that the AAROCDDQ was reliable and also indicated construct validity in a sample of South African teachers. It was concluded that further validation and standardisation of the AAROCDDQ could be done in mixed method studies as well as that future studies could further analyse the scale on item level to give a more coherent perspective on the psychosocial well-being of teachers.

The second article explored the prevalence of well-being in Afri Twin and non Afri Twin teachers. A quantitative survey design was implemented and the sample consisted of 97 Afri Twin teachers (20 male and 77 female) and 297 non Afri Twin teachers (52 male and 245 female) from 40 South African schools (13 Afri Twin and 27 non Afri Twin). The MHC-SF, the CSE and CSES were used to determine the well-being of teachers. The results indicated a moderate to high level of well-being, with an almost significant difference in social well-being and core self-evaluations between Afri Twin and non Afri Twin teachers. It was concluded that the social context of the 'twinning' process in Afri Twin schools could influence the social well-being of teachers positively.

The aim of the third article was two-fold. Firstly principals', teachers' and learners' experiences of the Afri Twin project were investigated, and secondly the aim was to develop an intervention for resilience in schools participating in the Afri Twin project. The sample consisted of 158 teachers (42 male and 116 female), 14 school principals (10 male and 4 female), and 65 learners (34 boys and 31 girls). The results indicated that leadership, school climate (culture), the people that are involved, and promoting optimism and self-efficacy through support and sharing are essential for the development or improvement of resilience in schools through the Afri Twin project.

The main conclusion from this thesis is that teachers' experience of the school as an environment in which they work is influenced by such factors as social support and sharing

that can influence the psychological well-being (specifically social well-being) of the educators. This is indicated by the correlation between the findings in article 3 which support the findings in article 2. The benefits from being involved with a project like the Afri Twin could also influence the resilience of the educators and learners/students.

## Opsomming

### Die dinamika van psigo-sosiale welstand in Afri Twin skole

*Sleutelwoorde:* Afri Twin, psigometriese eienskappe, metings, skoolklimaat, sosiale welstand, veerkragtigheid

Hierdie studie, wat as drie artikels aangebied word, het 'n bydrae tot die meting en bepaling van psigo-sosiale welstand in Afri Twin skole gelewer. Die literatuur dui op 'n ernstige tekort aan studies in verband met die meting van die psigo-sosiale welstand van onderwysers en moontlike intervensies om hulle welstand te bevorder. Die studie het binne die konteks van die Afri Twin skole projek plaasgevind. Genoemde projek bestaan uit samewerking tussen 'n Britse skool en 'n Suid-Afrikaanse skool, hetsy in 'n stedelike of landelike gebied, gegoede of minderbevoorregte gemeenskap en die doel is om kameraderie en vriendskapsbande tussen skoolhoofde, onderwysers en leerders van die betrokke skole te kweek en te bou. Betrokke skole word ook die geleentheid gebied om mekaar te besoek sodoende ervarings en idees uit te ruil en eerste-handse kennis van elk se funksionering op te doen.

In die eerste artikel word die bepaling van die psigometriese eienskappe van die AAROCQDQ vraelys beskryf met die oog op die geskiktheid van die vraelys vir die meting van skoolklimaat soos deur onderwysers ervaar. Die navorsingsgroep het uit 394 onderwysers bestaan (72 manlik en 322 vroulik) en is uit 40 skole in Suid-Afrika gewerf. Resultate van die AAROCQDQ het positief vergelyk met dié van ander meetinstrumente betreffende optimale funksionering (die Mental Health Continuum ó Short Form [MHC-SF],

die Coping Self-Efficacy Scale [CSE], en die Core Self-Evaluation Scale [CSES]). Die interne konstantheid en faktorstruktuur is bepaal asook die bevestiging van ooreenstemmende geldigheid. Die resultate het getoon dat die AAR OCDQ betroubaar en geskik is vir hierdie doel en ook konstruksie geldigheid is bevestig. Die gevolgtrekking is dat verdere geldigverklaring en standaardisering van die AAR OCDQ in multi-metode studies verfyn kan word en ook dat verdere studies die skaal op itemvlak kan analiseer sodoende 'n goeie samehangende perspektief te bewerkstellig rakende die psigo-sosiale welstand van onderwysers.

Navorsing oor die welstand van onderwysers soos dit in Afri Twin skole en nie-Afri Twin skole voorkom, word in die tweede artikel beskryf. 'n Kwantitatiewe navorsingsontwerp is gebruik en die groep het bestaan uit 97 Afri Twin onderwysers (20 manlik en 77 vroulik) en 297 nie-Afri Twin onderwysers (52 manlik en 245 vroulik) en is geneem uit 40 Suid-Afrikaanse skole (13 Afri Twin en 27 nie-Afri Twin). Die MHC-SF, die CSE en die CSES is gebruik om die welstand van onderwysers te verken. Die resultate het 'n gemiddeld-tot-hoë vlak van welstand uitgewys wat met betrekking tot sosiale welstand en kern self-evaluerings raketings aan 'n beduidende verskil tussen Afri Twin en nie-Afri Twin skole grens. Die gevolgtrekking is dat die sosiale konteks van die òkoppelingö proses (Afri Twin skole) die sosiale welstand van onderwysers positief kan beïnvloed.

Die derde artikel bevat hoofsaaklik inligting oor 'n tweevoudige doelstelling, naamlik om in die eerste plek die ervarings van skoolhoofde, onderwysers en leerders binne die projek van die Afri Twin skole na te speur en om in die tweede plek 'n intervensie saam te stel waarvolgens die veerkragtigheid van die betrokkenes aangevul en versterk kan word. Die navorsingsgroep het uit 158 onderwysers (42 manlik en 116 vroulik), 14 skoolhoofde (10 manlik en 4 vroulik) asook 65 leerders (34 seuns en 31 dogters) bestaan. Die resultate dui daarop dat leierskap, skoolklimaat/skoolkultuur, die betrokke mense asook die versterking

van optimisme en selfdoeltreffendheid deur middel van gedeelde ondersteuning, uiters belangrik is vir die ontwikkeling en bevordering van veerkragtigheid.

∓n Belangrike gevolgtrekking wat uit hierdie studie na vore tree is dat onderwysers se ervaring van die skool as ∓n omgewing waarbinne hulle werk beslis beïnvloed word deur faktore soos sosiale ondersteuning en gedeelde belange / wedersydse belangstelling. Die opvoeders se psigologiese welstand (spesifiek psigo-sosiale welstand) word deur sodanige faktore beïnvloed. Ondersteuning vir hierdie gevolgtrekking berus op die korrelasie tussen resultate soos in artikels twee en drie beskryf. Die voordele van betrokkenheid by ∓n Afri Twin projek kan ook ∓n positiewe uitwerking hê op skoolbetrokkes (hoofde, leerkragte, leerders) se veerkragtigheid / vermoë om die pad met kerngesonde entoesiasme te stap.

## Preface

- This thesis is submitted in article format as described in rules A5.1.1.2 and A5.1.1.2 as prescribed by the North-West University.
- The first article was submitted and published as a brief report in the Journal of Psychology in Africa volume 23, issue 1. The second article was submitted for possible publication in the Journal of Psychology in Africa and is currently under review. The third article will be submitted for possible publication in the South African Journal of Education.
- The referencing and editorial style of this thesis are in keeping with the guidelines as set out in the Publication Manual (6th edition) of the American Psychological Association (APA). However, the three articles were compiled according to the guidelines of the journal in which the articles were or will be submitted.
- In order to present the thesis as a unit, the page numbering is consecutive, starting from introduction and proceedings to the references. However, for submission purposes, the pages of each of the articles were individually numbered.
- Dr. A. W. Nienaber and Prof Q. M. Temane, co-authors of the three articles comprising this thesis, have provided consent for the submission of these articles for the examination purposes regarding a PhD degree.
- The thesis was send to Turn-it-in and the report was within the norms of acceptability.

## Letter of Consent

Permission is hereby granted for the submission by the first author, W. de Klerk, of the following three articles for examination purposes, towards the obtainment of a PhD degree in Psychology:

1. The Psychometric Properties of the Adapted and Revised Organisational Climate Description Questionnaire (AAR OCDQ).
2. The prevalence of well-being in teachers in Afri Twin schools as well as non Afri Twin schools.
3. Guidelines for promoting resilience in South African schools through the Afri Twin project.

The role of the co-authors was as follow: Dr. A. W. Nienaber and Prof. Q. M. Temane acted as promoter and co-promoter respectively. Dr. A. W. Nienaber assisted in the peer review of the qualitative data, whereas Prof. Q. M. Temane assisted in the analysis and interpretation of the quantitative data.

Dr. A. W. Nienaber

Co-author and promoter

Prof. Q. M. Temane

Co-author and co-promoter

## **SECTION 1: INTRODUCTION**

### **The dynamics of psycho-social well-being in Afri Twin schools**

#### **Introduction**

Schools located in many townships and rural areas of South Africa are faced with a lack of resources in terms of infrastructure and staffing (Bansilal & Rosenberg, 2011; Jooste & White, 2011; Mafora, 2013; Mdletshe, 1999). Infrastructure is often required for necessary educational activities, such as library facilities, computer laboratories and so on. Problems such as a lack of resources, inadequate collegial relationships, role ambiguity, insufficient financial support, pressure from external parties (e.g. education departments, school governing bodies and unions), a lack of support from the community and poor image of profession are all factors that trouble education in many countries (Jackson, Rothmann, & Van der Vijver, 2006) and influence the experience of work context. The negative effect of these school environments (climate) can be experienced directly by the principals and teachers. This can lead to high levels of stress that can cause negative well-being such as burnout (Ruiz-Mock, 2007). The context of such schools also needs to be understood in terms of another dimension, namely the well-being of staff and overall organisational context aspects.

The Afri Twin project, started by Jayne Martin (a South African) from the United Kingdom (UK), addresses some of these challenges. The Afri Twin project is typically a collaboration between a British school, a South African town/city school, and/or a school from a poor township or rural community in South Africa. The present researcher in his Masters dissertation entitled; "A DISCUSSION OF A UNIQUE COLLABORATION MODEL BETWEEN SCHOOLS" (De Klerk, 2008) conducted a qualitative case study to focus on the collaboration between a British School, a South African Model C School

(previously integrated schools), and a South African rural School as part of the Afri Twin project. Research revealed four major themes with categories and subcategories. The study concluded that cultural tolerance is established through the Afri Twin project, as well as the importance of financial support for promoting an improved learning environment. The study by De Klerk (2008; De Klerk & Nienaber, 2011) was limited in terms of gaining a better understanding of the specific effects and benefits of the Afri Twin project, especially on the part of teachers and school principals who play an important implementation role in the Afri Twin project.

### **Statement of the problem**

The context of an organisation defines in many ways experiences, behaviour, and psychological outcomes (Williams, Wissing, Rothmann, & Temane, 2010). Many illustrious examples on neighbourhoods and their effects on psychological well-being can be found in literature. Such information shows the influence of context on many different outcomes (Kapp, 2010; Ross, Reynolds, & Geis, 2000; Zhang, Chen, McCubbin, McCubbin, & Foley, 2010). The adverse effects of contextual factors are well presented in the literature as far as environmental factors such as school set-up and domestic circumstances (Olivier, 2006), poor financial support (Ndimande, 2006), poverty (Donald, Lazarus, & Lolwana, 2002; Mbatha, 2005), and material conditions (Masitsa, 2004) are concerned. The main aim of the present study was to explore the psychosocial well-being of teachers in the context of the Afri Twin project.

According to Chisholm and Vally (1996, as cited in Mdletshe, 1999), the condition of school buildings and facilities has a significant influence on the climate of learning and teaching at a school. South African rural schools experience many challenges with regard to basic resources, such as water, sanitation, and the safety of school buildings (Mbatha, 2005).

A published report on rural education highlights the fact that rural education in South Africa lags behind educational development in other parts of the country, despite the fact that the vast majority of school-going children in South Africa live in rural areas (Nelson Mandela Trust, 2005, p. 132, as cited in Ngubane, 2005, p. 4). With reference to this, Van Wyk (2006, p. 24) reported that schools in South Africa do not function satisfactorily and according to Jackson et al. (2006) public schools' quality in South Africa varies considerably. An 'unhealthy' or ineffective organisational climate in a school could cause a school to become dysfunctional (Vos, Van der Westhuizen, Mentz, & Ellis, 2012), therefore literature indicates that for schools to function and compete effectively, they must be resilient (Malloy & Allen, 2007; Phelps, 2008).

Few, if any studies, have specifically focused on the well-being of teachers in a situation as the Afri Twin project. Firstly instruments focusing on a quantitative understanding of the influence of context such as school climate from a positive psychological perspective have not been validated in South Africa. Secondly, few, if any studies, have focused on the prevalence of psychological well-being in South African teachers. Thirdly, few, if any studies, have made a proposal for the improvement of resilience in schools.

For the purpose of this study the researcher will look at the well-being of the schools involved as organisations in their own right by determining the organisational climate of the schools; by evaluating the mental health, resilience, coping self-efficacy and core self-evaluations of the teachers as psycho-social well-being; as well as by trying to gain a better understanding of the specific effects and benefits of the Afri Twin project regarding the schools involved.

## Well-being and experience of work context

When viewing schools from an organisational perspective, educators' (principals and teachers) work is becoming more demanding and difficult (Jackson & Rothmann, 2006). According to Greenberg (1984, as cited in Jackson & Rothmann, 2006), the roles of teachers are not easily defined. Teachers have to cope with higher numbers of learners/students per class, the growing size of the syllabi, and a rise in specialisation (Jackson & Rothmann, 2006). In the study of Vos et al. (2012) it was found that teachers do not experience the organisational environment (climate) in their schools as positive for creating a school environment (climate) favourable for learning and teaching. According to Ross, Romer and Horner (2012) teachers also experience a shortage of emotional support within their work context. It is possible that the Afri Twin as an intervention may play this role. In this study work context is conceptualised as school climate and organisational climate.

Research by Pretorius and De Villiers (2009) has indicated that the understanding of school climate and organisational health by educators' is important, because such understanding can reveal aspects that exercise a negative impact on school improvements, as well as the productivity of educators (teachers), their motivation and general well-being. This is important because models such as the Job Demands -Resources model (Bakker & Demerouti, 2007) indicate that the experience of a work context as supportive (resources) or non-supportive (demands) can lead to work engagement or burnout (Schaufeli, Bakker, & Van Reenen, 2009).

According to Hoy and Miskel (2005, p. 185), *school climate* refers to the heart and soul of a school, psychological and institutional attributes that give a school its personality, a relatively enduring quality of the entire school experienced by members, which describes their collective perceptions of routine behaviour, and affects their attitudes and behaviour in

the school. *Organisational climate* can be defined for the school context as a relatively enduring, pervasive quality of the internal environment of a school experienced by educators and/or learners that influences their behaviour and proceeds from their collective perceptions (Pretorius & De Villiers, 2009, p. 33).

In this study organisational climate is conceptualised as a work environment that could either be experienced positively or negatively, characterised by the institutional and psychological attributes that give the organisation its personality and character, influenced by the routine behaviour and perceptions of its members; and the organisational environment can also influence the attitudes and behaviour of its members.

Van der Westhuizen (2002) stated that a school with a healthy organisational structure is not subject to pressure from the community; has a school principal who gives guidance; a teaching staff who are dedicated; students/learners who are motivated; has goals that are attainable; and has sufficient resources. A positive school climate exists when all the students/learners feel accepted, comfortable, safe, wanted, and valued in a school environment (climate) where they can interact with caring people they trust. A positive school climate affects everyone associated with the school.

An organisation depends crucially on the employees for the success of the organisation in carrying out its mandate. According to Visser (2006), if the employees' well-being is not optimal, organisations' productivity will decrease. However, if it is promoted, positive spirals are possible in the areas of their functioning (Salanova, Llorens, & Schaufeli, 2011). Hakanen, Perhoniemi and Toppinen-Tanner (2008) suggest that positive strengths in the work-life of employees may group together resulting in upward spirals and resource gains in individual employees as well as in their work communities.

According to the Conservation of Resources (COR) theory of Steven Hobfoll (Hakanen et al., 2008), various resources are prominent factors in improving well-being and gaining new resources. According to the COR theory resources are "things that people value and therefore strive to obtain, retain, and protect" (Hakanen et al., 2008, p. 79). Job resources is defined as those organisational, physical, psychological, or social factors of work that not only have the potential to help accomplish work goals and reduce the negative effects of job demands (role ambiguity, emotional demands, high work pressure) but may also stimulate development, personal growth, work engagement, organisational commitment and learning (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Schaufeli et al., 2009).

When considering Barbara Fredrickson's broaden-and-build theory of positive emotions, positive emotions promote discovery of creative emotions, social bonds and ideas, which in turn would build that individual's personal resources ranging from intellectual and physical resources, to psychological and social resources (Fredrickson, 2004). Thus, a more coherent understanding of the psychological well-being of teachers is important.

### *Psychological well-being*

Psychological well-being seems to be multidimensional with regard to facets of self involved (e.g. affect, behaviour, and cognitions), and with regard to the areas of life in which these facets display themselves (intra- and interpersonal, contextual and social, in love and work: Keyes, 2006; Walker, 1999). According to Keyes et al. (2008), well-being can also be subjective, meaning individuals assess themselves about the quality of their lives such as accomplishments, experiences and relationships. One of the characteristics of an individual who is psychologically well (healthy) is his/her capability to be resilient (Antonovsky, 1987, as cited in Wei & Tarormina, 2011).

Well-being is mainly conceptualised from two different philosophical perspectives, namely hedonism and eudaimonism (Deci & Ryan, 2008; Henderson & Knight, 2012; Waterman, 1993). Hedonic is the maximum duration of positive, pleasant feelings while reducing negative and unpleasant feelings (Keyes et al., 2008). Therefore well-being consists of understandings of happiness, pleasure, life satisfaction, and the balance of positive affect to negative affect over a period of time (Keyes et al., 2008). On the other hand, eudaimonia refers to the capacity of an individual to function positively in life (Keyes et al., 2008), thus well-being is more than merely happiness, and seen as the actualisation of human potentials, meaning in life, self-realisation and purpose in life.

Keyes's Model (2005, p. 88), is adapted in this study and conceptualises mental health as a syndrome of subjective well-being consisting of symptoms of hedonic (emotional well-being) and eudaimonia (social- and psychological well-being), and not only the absence of mental illness. Mental health is the presence of something positive: meaning the realisation of an individual's own abilities in coping with normal life stressors, working productively, or contributing to his/her community (Keyes, 2007). Characteristics of individuals who experience well-being include positive emotions (Tugade & Fredrickson, 2004), life satisfaction (Park, 2004), job satisfaction (Oshagbemi, 1996, as cited in Schulze, 2006), balance between the experience of positive affect and negative affect (Gohm & Clore, 2002), core self-evaluations (Tsaousis, Nikolaou, Serdaris, & Judge, 2007), and self efficacy (Ozer & Bandura, 1990; Saleem & Shah, 2011). Tugade and Fredrickson (2004) state that positive emotions are important for resilience.

Resilience is defined as the capability of communities, families, individuals, and schools to cope successfully with everyday challenges, including life transitions, stress and significant adversity or risk (Rutter, 1990, as cited in Stewart, Sun, Patterson, Lemerle, & Hardie, 2004). Resilience has been shown to have a protective and buffering effect against

stress (Beasley, Thompson, & Davidson, 2003; Charney, 2004). Resilient individuals are characterised by their adaptability, concentration, optimism, organisation, and risk-taking (Ruiz-Mock, 2007). According to Barrett (2004, as cited in Ruiz-Mock, 2007), individuals who demonstrate resilience understand the need for future achievement, goals and objectives.

Core self-evaluations are also considered very important regarding positive psychological functioning. According to Tsaousis et al. (2007), the concept of core self-evaluations is a construct within the area of the personality that can assist as a potential moderator of the relationship between subjective well-being and health functioning. According to Tsaousis et al. (2007) core self-evaluations is a wide personality construct indicated by four specific traits: self-esteem, generalised self-efficacy, locus of control, and neuroticism. Self-esteem is the assessment an individual makes of his/her self-worth, generalised self-efficacy is an individual's estimate of his/her ability to mobilise the abilities and motivation needed to accomplish important outcomes, locus of control is the degree to which an individual believes that he/she controls events in his/her life, and neuroticism is defined as the individual tendency to dwell on the negative and his/her lack of emotional stability (Tsaousis et al., 2007). People with positive core self-evaluations see themselves as worthy, capable, and in control of their lives (Judge, Van Vianen, & De Pater, 2004) and therefore they can cope with challenging situations.

Coping self-efficacy is therefore also very important regarding well-being, especially teacher well-being. A lack of self-efficacy remains one of the most significant stressors among teachers and is a worldwide issue (Saleem & Shah, 2011). According to Wood and Bandura (1989, as cited in Saleem & Shah, 2011) self-efficacy is attributed to the beliefs of individuals over their capabilities to accumulate the cognitive resources, actions and motivation necessary to fulfil the demands of the current or given situation. According to Ozer and Bandura (1990), self-efficacy beliefs affect the self-regulation of cognitive

processes, therefore Albert Bandura defines self-efficacy as a belief an individual holds about his/her ability to perform a certain task (Saleem & Shah, 2011).

According to Ross et al. (2012) teacher efficacy involves not only abilities and personal skills, but how contextual factors, such as resources, affect teaching and student/learner support. According to research, teacher self-efficacy has been shown to predict teacher ambitions and goals, teachers' attitudes towards innovation and change, teachers' tendency to refer difficult students/learners to special education, teachers' use of teaching strategies, and the likelihood that teachers stay in the profession of teaching (Skaalvik & Skaalvik, 2010). It is the opinion that for self-efficacy to flourish, school context must be experienced in a positive manner by teachers and learners so that the resilience of the organisation can be fostered.

#### *Educational Organisation Resilience*

Collective, individual and school resilience strategies in educational organisations are integral (important) for success (Ruiz-Mock, 2007). According to Wilson and Ferch (2005, as cited in Ruiz-Mock, 2007), organisations that nurture empathy, nurture change and resilience, thus, by incorporating empathy and understanding the interactions between individuals become a learning opportunity for constituents. Patterson et al. (2002, as cited in Ruiz-Mock, 2007), emphasised that resilience supports educational progress, and if a school is not resilient overall, measures may be needed for improvement to occur.

Additional studies regarding how leaders affect the resilience, expressed by their employees, are advisable since developing employee resilience may positively influence an organisation's ability to adapt to change (Ruiz-Mock, 2007). Based on the research performed by Flash (1988, as cited in Ruiz-Mock, 2007, p. 52), five features were suggested that endorse (support) individual resilience and these features include 'having an atmosphere

that encourages transformation, self sufficiency and a sense of worth, emotional sensibleness, critical and creative thinking skills, and optimism.

In conclusion, according to Maslach, Schaufeli and Leiter (2001, as cited in Visser, 2006) productivity and well-being can be elevated through a work environment (optimal work settings) that is designed to support the positive development of absorption (intake/retention), dedication, energy, vigour and effectiveness among employees.

The research questions would then be:

- 1) What is the validity of the Adapted and Revised Organisation Climate Description Questionnaire (AAR OCDQ)?
- 2) What is the prevalence of well-being on teachers at Afri Twin and non Afri Twin schools?
- 3) What guidelines can be implemented in promoting resilience in South African schools through the Afri Twin project?

#### **General aim of this study**

The general aim of this study was, firstly, to validate the Adapted and Revised Organisational Climate Description Questionnaire (AAR OCDQ); secondly, to determine the prevalence of well-being in teachers of Afri Twin and non Afri Twin schools; thirdly, to determine guidelines for promoting resilience in South African schools through the Afri Twin project.

A report on this study will be provided in article format, comprising three articles.

4. The Psychometric Properties of the Adapted and Revised Organisational Climate Description Questionnaire (AAR OCDQ).

5. The prevalence of well-being on teachers in Afri Twin schools as well as non Afri Twin schools.
6. Guidelines for promoting resilience in South African schools through the Afri Twin project.

The first article (published as a brief report in the *Journal of Psychology in Africa* volume 23, issue 1) reports on the validation and psychometric properties of the Adapted and Revised Organisational Climate Description Questionnaire (AAROCDQ) within a positive psychological perspective. The AAROCDQ was correlated with the The Mental Health Continuum 6 Short Form (MHC-SF: Keyes et al., 2008), the Core Self-Evaluation Scale (CSES: Tsaousis et al., 2007), and the Coping Self-Efficacy Scale (CSE: Chesney, Folkman & Chambers, 1996).

The second article (submitted for possible publication in the *Journal of Psychology in Africa*) will compare the prevalence of well-being in schools of educators who have experienced the Afri Twin and those who have not. The MHC-SF, CSES and CSE were used to determine the well-being of the educators in Afri Twin and non Afri Twin schools.

The third article (to be submitted for possible publication in the *South African Journal of Education*) is a proposal for the development of resilience in schools participating in the Afri Twin project. Individual interviews, focus group interviews and open-ended questionnaires were used to gain a broad perspective regarding the experience of Afri Twin teachers, school principals and learners. From these perspectives and experiences guidelines were identified for the development and improvement of resilience through the Afri Twin project.

This study will be concluded with a section consisting of reflections and integrating conclusions regarding the study as a unit. The conclusion will also include recommendations for future studies.

## References

- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology, 22*(3), 309-328.
- Bansilal, S., & Rosenberg, T. (2011). South African rural teachers' reflections on their problems of practice: Taking modest steps in professional development. *Mathematics Education Research Journal, 23*, 107-127. doi: 10.1007/s13394-011-0007-2
- Beasley, M., Thompson, T., & Davidson, J. (2003). Resilience in response to life stress: The effect of coping style and cognitive hardiness. *Personality and Individual Differences, 34*, 77-95.
- Charney, D. S. (2004). Psychobiological mechanisms of resilience and vulnerability implications for successful adaptation to extreme stress. *American Journal of Psychiatry, 161*, 195-216.
- Chesney, M., Folkman, S., & Chambers, D. (1996). Coping effectiveness training for men living with HIV: Preliminary findings. *International Journal of STD and AIDS, 7*(2), 75-82.
- Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies, 9*, 1-11. doi: 10.1007/s10902-006-9018-1
- De Klerk, W. (2008). A discussion of a unique collaboration model between schools (Unpublished master's dissertation). North-West University, Potchefstroom.
- De Klerk, W., & Nienaber, A. W. (2011). A discussion of a unique collaboration model between schools. *Psychology Research, 1*(3), 170-181.

- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands resources model of burnout. *Journal of Applied Psychology, 86*, 499-512.
- Donald, D., Lazarus S., & Lolwana, P. (2002). *Educational psychology in social context* (2nd ed.). Cape Town: Oxford University Press.
- Fredrickson, B. L. (2004). The broaden-and-build theory of positive emotions. *Phil. Trans. R. Soc. Lond. B, 359*, 1367-1377. doi:10.1098/rstb.2004.1512.
- Gohm, C. L., & Clore, G. L. (2002). Four latent traits of emotional experience and their involvement in well-being, coping and attributional style. *Cognitions and Emotions, 16*(4), 495-518.
- Hakanen, J. J., Perhoniemi, R., & Toppinen-Tanner, S. (2008). Positive gain spirals at work: From job resources to work engagement, personal initiative and work-unit innovativeness. *Journal of Vocational Behaviour, 73*, 78-91.
- Henderson, L. W., & Knight, T. (2012). Integrating the hedonic and eudaimonic perspectives to more comprehensively understand wellbeing and pathways to wellbeing. *International Journal of Wellbeing, 2*(3), 196-221. doi: 10.5502/ijw.vi3.3
- Hoy, W., & Miskel, C. (2005). *Education administration: Theory, research, and practice* (7th ed.). New York: McGraw-Hill.
- Jackson, L., & Rothmann, S. (2006). Occupational stress, organisational commitment, and ill health of educators in the North West Province. *South African Journal of Education, 26*(1), 75-95.
- Jackson, L. T. B, Rothmann, S., & Van de Vijver, F. J. R. (2006). A model of work-related well-being for educators in South Africa. *Stress and Health, 22*, 263-274.

- Jooste, H., & White, C. J. (2011). Education for all: Experiences of principals at rural secondary schools in Mpumalanga province. *Africa Education Review*, 8(3), 588-600. Retrieved from <http://www.dx.doi.org/10.1080/18146627.2011.618725>
- Judge, T. A., Van Vianen, A. E., & De Pater, I. E. (2004). Emotional stability, core self-evaluations, and job outcomes: A review of the evidence and an agenda for future research. *Human Performance*, 17, 327-347.
- Kapp, A. (2010). *Financial stress, neighborhood stress, and well-being: Mediation and moderation models*. Retrieved from [http://www.digitalcommons.iwu.edu/psyc\\_honproj/142](http://www.digitalcommons.iwu.edu/psyc_honproj/142)
- Keyes, C. L. M. (2005). Chronic physical conditions and aging: Is mental health a potential protective factor? *Ageing International*, 30(1), 88-104.
- Keyes, C. L. M. (2006). Mental health in adolescence: Is America's youth flourishing. *American Journal of Orthopsychiatry*, 76(3), 395-402.
- Keyes, C. L. M. (2007). Promoting and protecting mental health as flourishing: A complementary strategy for improving national mental health. *American Psychologist*, 63(2), 95-108.
- Keyes, C. L. M., Wissing, M. P., Potgieter, J. P., Temane, Q. M., Kruger, A., & Van Rooy, S. (2008). Evaluation of the Mental Health Continuum-Short Form (MHC-SF) in Setswana-Speaking South Africans. *Clinical Psychology and Psychotherapy*, 15, 181-192.
- Mafora, P. (2013). Managing teacher retention in a rural school district in South Africa. *The Australian Educational Researcher*. doi: 10.1007/s13884-013-0088-x

- Malloy, W. W., & Allen, T. (2007). Teacher retention in a teacher resiliency-building rural school. *The Rural Educator*, 19-27.
- Masitsa, M. G. (2004). Four critical causes of underachievement in township secondary schools. *Acta Academica*, 36(1), 213-245.
- Mbatha, P. N. (2005). The implementation of an institutional support team in a rural primary school in KwaZulu-Natal (Unpublished master's dissertation). University of Johannesburg, Johannesburg.
- Mdletshe, K. D. (1999). Characteristics of an effective township school for quality assurance (Unpublished doctoral thesis). Rand Afrikaans University, Johannesburg.
- Ndimande, B. (2006). Parental choice: The liberty principle in education finance. *Perspectives in Education*, 24(2), 143-156.
- Ngubane, W. S. (2005). An investigation into implementation of participative management in a rural school in the Pietermaritzburg district (Unpublished master's dissertation). Rhodes University, Grahamstown.
- Olivier, M. A. J. (2006). The impact of deprived environments on learner motivation. *Africa Education Review*, 3(1+2), 48-66.
- Ozer, E. M., & Bandura, A. (1990). Mechanisms governing empowerment effect: A self-efficacy analysis. *Journal of Personality and Social Psychology*, 58(2), 472-486.
- Park, N. (2004). The role of subjective well-being in positive youth development. *Annals of the American Academy of Political and Social Science*, 591, 25-39.
- Phelps, P. H. (2008). Helping teachers become leaders. *The Cleaning House: A Journal of Educational Strategies*, 81(3), 117-122.

- Pretorius, S., & De Villiers, E. (2009). Educators' perceptions of school climate and health in selected primary schools. *South African Journal of Education, 29*, 33-52.
- Ross, C. E., Reynolds, J. R., & Geis, K. J. (2000). The contingent meaning of neighborhood stability for residents' psychological well-being. *American Sociological Review, 65*(4), 581-597.
- Ross, S. W., Romer, N., & Horner, R. H. (2012). Teacher well-being and the implementation of school-wide positive behavior interventions and supports. *Journal of Positive Behavior Interventions, 14*(2), 118-128.
- Ruiz-Mock, M. (2007). Female school leadership, educator resilience strategies, and student outcomes in an English primary school (Unpublished doctoral dissertation). University of Phoenix, Arizona.
- Salanova, M., Llorens, S., & Schaufeli, W. B. (2011). "Yes, I can, I feel good, and I just do it". On gain cycles and spirals of efficacy beliefs, affect, and engagement. *Applied Psychology: An International Review, 60*(2), 255-285.
- Saleem, A., & Shah, A. (2011). Self-efficacy as a stress-coping mechanism among teachers: A critical literature review. *African Journal of Business Management, 5*(35), 13435-13441. doi: 10.5897/AJBMX11.023
- Schaufeli, W. B., Bakker, A. B., & Van Reenen, W. (2009). How change in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organisational Behaviour, 30*, 893-917.
- Schulze, S. (2006). Factors influencing the job satisfaction of academics in higher education. *South African Journal of Higher Education (SAJHE), 20*(2), 318-335.

- Skaalvik, E. M., & Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education, 26*, 1059-1069.
- Stewart, D., Sun, J., Patterson, C., Lemerle, K., & Hardie, M. (2004). Promoting and building resilience in primary school communities: Evidence from a comprehensive health promoting school approach. *International Journal of Mental Health Promotion, 6*(3), 26-33.
- Tsaousis, I., Nikolaou, I., Serdaris, N., & Judge, T. A. (2007). Do the core self-evaluations moderate the relationship between subjective well-being and physical and psychological health? *Personality and Individual Differences, 42*, 1441-1452.
- Tugade, M. M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology, 86*(2), 320-333.
- Van der Westhuizen, P. C. (2002). *Schools as organisations*. Pretoria: Van Schaik Publishers.
- Van Wyk, E. (2006, October 15). 80% van skole doen nie hulle werk nie (80% of schools do not do their work). *Rapport*.
- Visser, C. A. (2006). Emotion work and well-being of secondary school educators (Unpublished master's dissertation). North-West University, Potchefstroom.
- Vos, D., Van der Westhuizen, P. C., Mentz, P. J., & Ellis, S. M. (2012). Education and the quality of their work environment: An analysis of the organisational climate in primary schools. *South African Journal of Education, 32*, 56-68.
- Walker, H. J. (1999). Clarifying the affective component of psychological well-being (Unpublished master's dissertation). North-West University, Potchefstroom.

- Waterman, A. S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (eudaimonia) and hedonic engagement. *Journal of Personality and Social Psychology, 64*(4), 678-691. doi: 10.1037/10022-3514.4.678
- Wei, W., & Tarormina, R. J. (2011). Factors influencing work efficacy in China. *Advances in Applied Sociology, 1*(1), 56-57.
- Williams, S., Wissing, M. P., Rothmann, S., & Temane, Q. M. (2010). Self-efficacy, work, and psychological outcomes in public service context. *Journal of Psychology in Africa, 20*(1), 43-52.
- Zhang, W., Chen, Q., McCubbin, H., McCubbin, L., & Foley, S. (2010). Predictors of mental and physical health: Individual and neighborhood levels of education, social well-being, and ethnicity. *Health & Place*. doi: 10.1016/j.healthplace.2010.10.008

**SECTION 2: ARTICLE 1****The Psychometric Properties of the Adapted and Revised Organisational Climate  
Description Questionnaire (AAR OCDQ)**

Published as a brief report in the Journal of Psychology in Africa

De Klerk, W., Temane, Q. M., & Nienaber, A. W. (2013). The Psychometric Properties of the Adapted and Revised Organisational Climate Description Questionnaire (AAR OCDQ). *Journal of Psychology in Africa*, 23(1), 139-144.

## 2.1 Guidelines for authors: Journal of Psychology in Africa

### **Journal of Psychology in Africa**

#### **Instructions to authors**

##### **Manuscripts**

Manuscripts should be submitted in English, French, Portuguese or Spanish. They should be typewritten and double-spaced, with wide margins, using one side of the page only.

Manuscripts should be submitted to the Editor-in-Chief, Journal of Psychology in Africa, Professor Elias Mpofu, PhD., CRC, Associate Professor, Faculty of Health Sciences, University of Sydney, Cumberland Campus, East Street, PO Box 170 Lidcombe NSW 1825, Australia, email: e.mpofu@usyd.edu.au. We encourage authors to submit manuscripts via e-mail, in MS Word, but we also require two hard copies of any e-mail submission. Before submitting a manuscript, authors should peruse and consult a recent issue of the *Journal of Psychology in Africa* for general layout and style. Manuscripts should conform to the publication guidelines of the latest edition of the American Psychological Association (APA) publication manual of instructions for authors.

##### **Manuscript format**

All pages must be numbered consecutively, including those containing the references, tables and figures. The typescript of manuscripts should be arranged as follows:

**Title:** This should be brief, sufficiently informative for retrieval by automatic searching techniques and should contain important key-words (preferably <10 words).

**Author(s) and Address(es) of author(s):** The corresponding author must be indicated. The author's respective addresses where the work was done must be indicated. An e-mail address, telephone number and fax number for the corresponding author must be provided.

**Abstract:** Articles and abstracts must be in English. Submission of abstracts translated to French, Portuguese and/or Spanish is encouraged. For data-based contributions, the abstract

should be structured as follows: *Objective* - the primary purpose of the paper, *Method* ó data source, subjects, design, measurements, data analysis, *Results* ó key findings, and *Conclusions* ó implications, future directions. For all other contributions (except editorials, letters and book reviews) the abstract must be a concise statement of the content of the paper. Abstracts must not exceed 120 words. It should summarize the information presented in the paper but should not include references.

**Referencing:** Referencing style should follow APA manual of instructions for authors.

**References in text:** References in running text should be quoted as follows: (Louw & Mkize, 2004), or (Louw, 2004), or Louw (2000, 2004a, 2004b), or (Louw & Mkize, 2004), or (Mkize, 2003; Louw & Naidoo, 2004). All surnames should be cited the first time the reference occurs, e.g., Louw, Mkize, and Naidoo (2004) or (Louw, Mkize, & Naidoo, 2004). Subsequent citations should use **et al.**, e.g. Louw et al. (2004) or (Louw et al., 2004).

Unpublished observations and personal communications may be cited in the text, but not in the reference list. Manuscripts accepted but not yet published can be included as references followed by *in press*

**Reference list:** Full references should be given at the end of the article in alphabetical order, using double spacing. References to journals should include the author's surnames and initials, the full title of the paper, the full name of the journal, the year of publication, the volume number, and inclusive page numbers. Titles of journals must not be abbreviated. References to books should include the author's surnames and initials, the year of publication, the full title of the book, the place of publication, and the publisher's name.

References should be cited as per the examples

below:

- Appoh, L. (1995). The effects of parental attitudes, beliefs and values on the nutritional status of their children in two communities in Ghana (Unpublished master's thesis). University of Trondheim, Norway.
- Peltzer, K. (2001). Factors at follow-up associated with adherence with directly observed therapy (DOT) for tuberculosis patients in South Africa. *Journal of Psychology in Africa, 11*, 165-185.
- Sternberg, R. J. (2001, June). *Cultural approaches to intellectual and social competencies*. Paper presented at the Annual Convention of the American Psychological Society, Toronto, Canada.
- Cook, D. A., & Wiley, C. Y. (2000). Psychotherapy with members of the African American churches and spiritual traditions. In P. S. Richards & A. E. Bergin (Ed.), *Handbook of psychotherapy and religiosity diversity* (pp. 369-396). Washington, DC: American Psychological Association.

**Tables:** Tables should be either included at the end of the manuscript or as a separate file.

Indicate the correct placement by indicating the insertion point in brackets, e.g., <Insert Table 1 approximately here>. Tables should be provided as either tab-delimited text or as a MS Word table (One item/cell). Font for tables should be Helvetica text to maintain consistency.

**Figures/Graphs/Photos:** Figures, graphs and photos should be provided in graphic format (either JPG or TIF) with a separate file for each figure, graph or photo. Indicate the correct placement by indicating the insertion point in brackets, e.g., <Insert Figure 1 approximately here>. Provide the title for the item and any notes that should appear at bottom of item in the manuscript text. Items should be cropped to avoid the appearance of superfluous white space around items. Text on figures and graphs should be Helvetica to maintain consistency.

Figures must not repeat data presented in the text or tables. Figures should be planned to appear to a maximum final width of either 80 or 175 mm. (3.5 or 7.0"). Complicated

symbols or patterns must be avoided. Graphs and histograms should preferably be two-dimensional and scale marks provided. All lines should be black but not too heavy or thick (including boxes). Color only in photos or color sensitive graphic illustrations. Extra charges will be levied for color printing.

**Text:** 1. Do not align text using spaces or tabs in references. Use one of the following: (a) use CTRL-T in Word 2007 to generate a hanging indent or (b) MS Word allows author to define a style (e.g., reference) that will create the correct formatting. 2. Per APA guidelines, double space should follow any punctuation. 3. Do not insert spaces at the beginning or end of paragraphs. 4. Do not use color in text.

**Lead authors will receive a complimentary issue of the journal issue in which their article appears.** Reprints in PDF format can be purchased from the publishers, Elliott & Fitzpatrick. The Journal does not place restriction on manuscript length but attention is drawn to the fact that a levy is charged towards publication costs which is revised from time to time to match costs of production. Instructions for remitting the publication levy are provided to lead or corresponding authors by the Editorial Assistant of the journal.

Instructions to authors are available at:

**<http://www.elliottfitzpatrick.com>**

## 2.2. Manuscript: The Psychometric Properties of the Adapted and Revised Organisational Climate Description Questionnaire (AAR OCDQ)

The Psychometric Properties of the Adapted and Revised Organisational Climate Description  
Questionnaire (AAROCDQ)

Werner de Klerk\*

Q. Michael Temane

Alida W. Nienaber

North-West University, South Africa.

Corresponding author: W de Klerk\*

School of Psychosocial Behavioural Sciences: Psychology

Private Bag X6001

Potchefstroom 2520

Internal Box 206

12998699@nwu.ac.za

## Abstract

This study validated the Adapted and Revised Organisational Climate Description Questionnaire (AAROCDQ) for school climate as experienced by teachers. Participants were 394 school teachers (72 male and 322 female) from 40 schools in South Africa. Internal consistency and factor structure were determined as well as the evidence for concurrent validity. The results of the study show that the AAROCDQ yielded reliable score and also indicated construct validity in a sample of South African teachers.

*Keywords:* school climate measure, well-being, coping, self-efficacy.

The Psychometric Properties of the Adapted and Revised Organisational Climate Description  
Questionnaire (AAROCDQ)

### **Introduction**

Individuals experience their workplaces uniquely based on the characteristics of those organisations. Organisations are characterised by whether they facilitate the performance of their employees (job resources) or impede their performances (job demands). A balance between job resources (job enhancement opportunities, social support, being well psychologically, and participating in decision making) and job demands (role ambiguity, workload, stressful events, and role conflict) would influence organisational well-being (Rothmann & Jordaan, 2006). According to Schaufeli and Bakker (2004), work engagement (a fulfilling and positive related state of mind that is characterised by absorption, dedication and vigour) is strongly influenced by job resources. Vigour refers to high levels of mental resilience and energy while working, dedication refers to obtaining a sense of meaning from one's work, and absorption is characterised by being happily engaged in one's work (Rothmann & Rothmann, 2010). High levels of psychological well-being and employee engagement play an important role in delivering outcomes that are associated with successful organisations (Robertson & Cooper, 2010), but the school environment (climate) also has the possibility to either enhance or damage the mental well-being of school staff and learners/students (Spratt, Schucksmith, Philip, & Watson, 2006).

According to Vos, Van der Westhuizen, Mentz and Ellis (2012) an ineffective organisational climate in a school can lead to a downfall in school activities and could cause a school to become dysfunctional. Jackson and Rothmann (2006) recommended that school principals should pay more attention to teachers' psychological well-being. Systematic factors such as religious aspects, beliefs, philosophies, the vision, mission and ethos of the

school, norms and values should also be taken into consideration regarding the organisational climate and organisational culture of a school (Vos et al., 2012).

In the school context, organisational climate can be defined as a relatively enduring, pervasive quality of the internal environment of a school experienced by educators and/or learners that influences their behaviour and proceeds from their collective perceptions (Pretorius & De Villiers, 2009, p. 33). According to Hoy and Miskel (2005, p. 185) school climate refers to the heart and soul of a school, psychological and institutional attributes that give a school its personality, a relatively enduring quality of the entire school experienced by members, which describes their collective perceptions of routine behaviour, and affects their attitudes and behaviour in the school. For example, Pretorius and De Villiers (2009) reported that educators (teachers) from their study perceived their relations with their school principals as closed (non supportive, controlling, interfering and inflexible), while educator-educator relations were seen as more open (tolerant, meaningful, friendly, respectful, supportive, enthusiastic and accepting). According to Pretorius and De Villiers (2009), these research findings have important implications for the implementation of change in schools, educators' motivation, productivity, well-being, job satisfaction and learner achievement. School climate is an environment of optimal functioning, with important positive psychological aspects such as mental health (especially emotional well-being), coping self-efficacy and core self-evaluations. Thus it is important to validate a scale that measures such an attribute that could have the potential of influencing many outcomes for schools.

### **Goals of the Study**

The study aimed to determine the psychometric properties of the Adapted and Revised Organisational Climate Description Questionnaire (AAR OCDQ), which is a measure of school climate. The following question guided the study:

What are the psychometric properties of the Adapted and Revised Organisational Climate Description Questionnaire (AAROCDQ)?

## **Method**

### **Research Design**

A cross-sectional survey design was implemented in this study relative to the main aim of the study. In cross-sectional studies variables of interest in a sample of subjects are assayed once and the relationships between them are determined (Creswell, 2009; Hopkins, 2000).

### **Participants**

Participants consisted of a convenience sample of 394 teachers (72 male and 322 female) from 40 South African schools (see Table 1 for demographics).

< Insert table 1 approximately here >

### **Validation Process**

A primary goal of scale development is to create a measure that is valid regarding the underlying construct (Clark & Watson, 1995). Therefore according to Clark and Watson (1995) the creation of the initial item pool is an important stage in scale development. Items for the AAROCDQ were drawn from the Organizational Climate Description Questionnaire - Rutgers Elementary (OCDQ-RE: Hoy, 2011), the Organizational Climate Description Questionnaire - Rutgers Secondary (OCDQ-RS: Hoy, 2011; Mentz & Van der Westhuizen, 1993), the Organizational Climate Description Questionnaire - Rutgers Middle (OCDQ-RM: Hoy, 2011; Hoy, Hoffman, Sabo, & Bliss, 1996), the School Organisational Health Questionnaire (Hart, Carter, Conn, Dingle, & Wearing, 1993), as well as some of the

researcher's own questions. In this study, face validity was applied to the AAR OCDQ scale to determine the alignment of items with the main aim of the study.

Face validity is when the instrument/questionnaire appears to measure what it is supposed to measure (Pietersen & Maree, 2009b). Face validity for this study was established by asking 30 people to look at and read the AAR OCDQ to determine whether the items were valid for the intended construct as well as whether the language was correct and understandable.

Feasibility is usually studied through the administration of a pilot study (De Yébenes Prous, Salvanés, & Ortells, 2009) and therefore very helpful to conduct before starting a larger scale development project (Clark & Watson, 1995). The pilot study for this study consisted of two schools with a sample of 22 participants (11 participants from each school). The alpha coefficient (  $\alpha$  ) score for the pilot study was 0.89. Research also indicated that questionnaire items and their order have been shown to influence typical responses (Gendall, Carmichael, & Hoek, 1997; Perreault, 1976).

According to Gendall et al. (1997) and Altermatt (2006), when responses to earlier items influence responses to later items, it is referred to as order effect. For this study, to reduce order effect, two versions of the AAR OCDQ were developed (by scrambling the questions in the second version), and the second version of the AAR OCDQ was given to every second school in the study.

### **Measuring Instruments**

Participants completed the following four measuring instruments: the Adapted and Revised Organisational Climate Description Questionnaire (AAR OCDQ), the Mental Health

Continuum ó Short Form (MHC-SF), the Core Self-Evaluation Scale (CSES), and the Coping Self-Efficacy Scale (CSE). These are described next.

*The Adapted and Revised Organisational Climate Description Questionnaire* (AAROCDQ). The AAROCDQ was originally developed as a 40-item 4-point Likert-type rating scale (1 = occurs rarely, 2 = occurs sometimes, 3 = occurs often, 4 = occurs very frequently). The short version of the AAROCDQ comprises 20-items, and was used for validation in this study.

*The Mental Health Continuum – Short Form* (MHC-SF: Keyes, 2005; Keyes, 2007; Keyes et al., 2008) is a 14-item measure of emotional well-being (EWB), social well-being (SWB) and psychological well-being (PWB). The total scale range is (0 - 70). Low scores suggest low levels of well-being and high scores suggest high levels of well-being (and not the distinction made by Keyes et al. (2008) of flourishing/languishing). In a previous study the internal reliability of the overall MHC-SF Scale was 0.74 (Keyes et al., 2008). The reliability of the MHC-SF Scale in this study measured 0.89.

*The Core Self-Evaluation Scale* (CSES: Gardner & Pierce, 2009; Tsaousis, Nikolaou, Serdaris, & Judge, 2007) is a 12-item scale to measure a dispositional state of the individuals regarding their personality, namely global self-esteem, generalised self-efficacy, and neuroticism (Gardner & Pierce, 2009). Sample items are "I am confident I get the success I deserve in Life" and "when I try, I generally succeed." It is scored on a 5-point Likert-type scale. The total scale range is (0 - 60). Low scores indicate low levels of functioning on their self-evaluations and high scores indicate high levels of self-evaluation. In the study of Tsaousis et al. (2007) the alpha coefficient score for CSES was 0.80. The reliability of the CSES in this study measured 0.83.

*The Coping Self-Efficacy Scale* (CSE: Chesney, Folkman, & Chambers, 1996; Wei, 2009) is a 26-item scale to measure individuals' self-efficacy to cope with life stressors (Chesney et al., 1996). Responses to the self-efficacy scale are based on an 11-point Likert-type scale (0 = cannot do at all; to 10 = certainly can do). A coping self-efficacy score is created by summing the item ratings; higher scores indicate higher self-efficacy. The total scale range is (0 - 260). The alpha coefficient ( ) for the Chesney et al. (1996) study was 0.95. The reliability of the CSE in this study measured 0.94.

### **Procedure and Ethical Consideration**

Ethical approval was obtained from the Ethics Committee of the North-West University (Potchefstroom Campus: NWU-0072-08-S1). Written consent was obtained from the school principals of each school as well as all the participants to voluntarily participate in the study. The participants were informed that their identity would be protected and that they could withdraw from the research project at any time.

### **Data Analysis**

Descriptive statistics (means, standard deviation) of the study measures are indicated and were calculated, including psychometric properties (internal consistency, inter-item correlations and fit indices) of the main variable. To attest to the construct validity of the main study measure, AAROCQDQ was correlated with MHC-SF, CSES and CSE. The effect sizes of the correlations were also reported according to guidelines given by Field (2005). Factor analysis (both explanatory and confirmatory) was conducted to assess the structure of the AAROCQDQ. Eigen values and the scree plot were used to assess the structure of AAROCQDQ and fit indices (RMSEA, GFI,  $\chi^2$ ) used to confirm the structure. As the groups of males and females differ substantially the factor structure of the groups also had to be

studied separately. Therefore we expect differences in individuals testing fit for males and females (Type I error).

## Results

### Internal Consistency and Other Correlational Measures

The descriptive statistics of the AAROCDDQ were calculated. The table below summarises the statistics of all study measures.

< Insert table 2 approximately here >

The internal consistency ( ) as a measure of reliability of the AAROCDDQ reduced scale for the total group was 0.89 (males = 0.91; females = 0.89). According to Pietersen and Maree (2009a) the acceptable Cronbach alpha coefficient is 0.70 (low reliability), 0.80 (moderate reliability), and 0.90 (high reliability). Therefore = 0.89 of the AAROCDDQ can be considered as a level of high reliability.

The AAROCDDQ correlated positively with the other three main scales in the study (MHC-SF  $r = 0.47$  significant at 1 % level, CSE  $r = 0.30$  significant at 1 % level, and CSES  $r = 0.32$  significant at 1 % level). The effect sizes of these correlations reflected large to medium effect sizes (Field, 2005). The significant correlations of the AAROCDDQ and other measures of optimal functioning indicated construct validity.

### Construct Validity

On the original 40-item scale, factor analysis to test item loadings and factor structure was conducted. An initial exploration of the output and scree plot indicated that there was only one dominant factor in the scale. On closer inspection it was revealed that a number of items cross-loaded on the main factor and the sub-factor. The exclusion of cross-loading items indicated that only one substantive factor should be used for further analysis.

Table 3 presents factor loadings and item-total correlations of a reduced model of the AAR OCDQ. The items explain 36.19 % of the variance based on this reduced model.

<Insert table 3 approximately here>

Confirmatory factor analysis was implemented with the programme Statistica (version 8) to test model fit of the 20-item (reduced) model. Three models were tested, with the first one including both males and females (total model), the second model with females only and the third model with males only to further attest to issues of equivalence. All three models indicated poor fit as indicated in table 4 below based on suggested fit indices by Browne and Cudeck (1992). The split of the model by gender was necessitated by the ratio of males to females in the study (322 females and 72 males).

<Insert table 4 approximately here>

## **Discussion**

The results of the study showed that the reliability of scores from the shortened AAR OCDQ was high for the sample of teachers in this study. The AAR OCDQ demonstrated evidence of construct validity based on its positive correlations with other measures of optimal functioning such as the Mental Health Continuum - Short Form, Coping Self-Efficacy Scale and Core Self-Evaluations Scale.

The results also showed, however, that the reduced scale had a poor fit with the data. Firstly, all models were significant based on the size of  $\chi^2$  and its p-value. Although the interpretation of the  $\chi^2$  test could be susceptible to sample sizes and could influence interpretation, a significant value indicates a poor fit (Mulaik et al., 1989) as was the case in this study. Secondly, the point estimate (RMSEA) was well above the threshold suggested by Browne and Cudeck (1992), who benchmark this parameter at least at 0.05 or below, thus

indicating poor fit. This finding was the same for the reduced model, and the models for females and males with the latter as the worst fit. The overall fit of the total was consistent for the separate models for males and females on the same data indicating a level of equivalence (Rothmann & Rothmann, 2010). This study also adds to pertinent arguments in psychometrics that not all reliable measures might be valid (Gravetter & Forzano, 2009; Mitchell & Jolley, 2010).

### **Conclusion**

The aim of this study was to validate the AAROCDDQ. To validate the AAROCDDQ the face validity, feasibility (pilot study) and reverse order effect were taken into consideration; thereafter descriptive statistics (central tendency and dispersion) and construct reliability (correlations) were conducted. After exploratory factor analysis a reduced model of 20 items with 1 factor only (unidimensional) was identified.

### **Recommendations**

Further analyses beyond the validation of the AAROCDDQ could be possible. Factor loadings were all between the higher end of 0.3 and top end of 0.7. The literature indicates the importance of the magnitude of loadings (Dauphinee, Shau, & Stevens, 1997; Field, 2005) and it can be calculated that the items loaded significantly on the unidimensional factor dubbed 'experience of school climate' in this study. Beyond this, as a recommendation for further study, items could also possibly be grouped in terms of the following: perceived participation in the business of the school; perceived teacher-learner interaction; and teacher experience of leadership in the school. Future studies could test that although this scale could be unidimensional, some aspects of the 'school climate' may perhaps be more important than others and whether these aspects are differentially important to males and females. It is recommended that further research should be done on the validation and standardisation of

the AAROCDDQ. It is concluded that future studies could further analyse the scale on an item level using procedures such as Differential Item Functioning (DIF) to improve the possibility of validity among subgroups.

## Reference

- Altermatt, B. (2006). *Questionnaire & survey designs*. Retrieved from [http://www.vault.hanover.edu/altermattw/methods/assets/.../Questionnaire\\_Design.pdf](http://www.vault.hanover.edu/altermattw/methods/assets/.../Questionnaire_Design.pdf)
- Browne, M. W., & Cudeck, R. (1992). Alternative ways for assessing model fit. *Sociological Methods and Research, 21*, 230-258.
- Chesney, M., Folkman, S., & Chambers, D. (1996). Coping effectiveness training for men living with HIV: Preliminary findings. *International Journal of STD and AIDS, 7*(2), 75-82.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment, 7*(3), 309-319.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. (3rd ed.). Thousand Oaks, California: Sage.
- Dauphinee, T. L., Shau, C., & Stevens, J. J. (1997). Survey of attitudes toward statistics: Factor structure and factorial invariance for women and men. *Structural Equation Modelling: Multidisciplinary Journal, 4*(2), 129-141.
- De Yébenes Prous, M. J. G., Salvanés, F. R., & Ortells, L. C. (2009). Validation of questionnaires. *Reumatol Clin, 5*(4), 171-177.
- Field, A. (2005). *Discovering statistics using SPSS* (2nd ed.). London, England: Sage.
- Gardner, G., & Pierce, L. (2009). The Core Self-Evaluation Scale: Further construct validation evidence. *Educational Psychological Measurement, 70*(2), 291-304.
- Gendall, P., Carmichael, V., & Hoek, J. (1997). A test of the conversational logic analysis model of questions order effects. *Marketing Bulletin, 8*, 41-52.

- Gravetter, F. J., & Forzano, L. B. (2009). *Research methods for the behavioural sciences* (3rd ed.). Belmont, CA: Wadsworth Cengage Learning.
- Hart, P. M., Carter, N. L., Conn, M., Dingle, R. K., & Wearing, A. J. (1993, November). *Development of the School Organisational Health Questionnaire: A measure for assessing teacher morale and school organisational climate*. Paper presented at the 1993 National Conference of the Australian Association for Research in Education, Freemantle.
- Hopkins, W. G. (2000). *Quantitative research design*. Retrieved from <http://www.sportsci.org/jour/0001/wghdesign.html>
- Hoy, W. K. (2011). Wayne K. Hoy Home Page - Educational Administration. Retrieved January 16, 2011, from the Ohio State University, School of Educational Policy and Leadership Web site: <http://www.coe.ohio-state.edu/whoy>
- Hoy, W. K., Hoffman, J., Sabo, D., & Bliss, J. (1996). The organizational climate of middle schools: The development and test of the OCDQ-RM. *Journal of Educational Administration*, 34(10), 42-59.
- Hoy, W., & Miskel, C. (2005). *Education administration: Theory, research, and practice* (7th ed.). New York: McGraw-Hill.
- Jackson, L. T. B., & Rothmann, S. (2006). Occupational stress, organizational commitment, and ill-health of educators in the North-West Province. *South African Journal of Education*, 26, 75-95.
- Keyes, C. L. M. (2005). Chronic physical conditions and aging: Is mental health a potential protective factor? *Ageing International*, 30(1), 88-104.

- Keyes, C. L. M. (2007). Promoting and protecting mental health as flourishing: A complementary strategy for improving national mental health. *American Psychologist*, 63(2), 95-108.
- Keyes, C. L. M., Wissing, M. P., Potgieter, J. P., Temane, Q. M., Kruger, A., & Van Rooy, S. (2008). Evaluation of the Mental Health Continuum-Short Form (MHC-SF) in Setswana-Speaking South Africans. *Clinical Psychology and Psychotherapy*, 15, 181-192.
- Mentz, P. J., & Van der Westhuizen, P. C. (1993, April). *Organisational climate in schools in white communities in South Africa: A validation of OCDQ-RS*. Paper presented at the annual meeting of the American Educational Research Association, Atlanta, GA.
- Mitchell, M. L., & Jolley, J. M. (2010). *Research design explained* (7th ed.). Belmont, USA: Wadsworth Cengage Learning.
- Mulaik, S. A., James, L. R., Van Alstine, J., Bennett, N., Lind, S., & Stilwell, C. D. (1989). Evaluation of goodness-of-fit indices for structural equation models. *Psychological Bulletin*, 105(3), 430-445.
- Perreault, W. D. (1976). Controlling order-effect bias. *The Public Opinion Quarterly*, 39(4), 544-551.
- Pietersen, J., & Maree, K. (2009a). Statistical analysis 1: Descriptive statistics. In K. Maree (Ed.). *First steps in research* (3rd ed., pp. 183-195). Pretoria: Van Schaik Publishers
- Pietersen, J., & Maree, K. (2009b). Standardisation of a questionnaire. In K. Maree (Ed.). *First steps in research* (3rd ed., pp. 215-222). Pretoria: Van Schaik Publishers.

- Pretorius, S., & De Villiers, E. (2009). Educators' perceptions of school climate and health in selected primary schools. *South African Journal of Education, 29*, 33-52.
- Robertson, I. T., & Cooper, C. L. (2010). Full engagement: The integration of employee engagement and psychological well-being. *Leadership & Organization Development Journal, 31*(4), 324-336.
- Rothmann, S., & Jordaan, G. M. E. (2006). Job demands, job resources and work engagement of academic staff in South African higher education institutions. *South African Journal of Industrial Psychology, 32*(4), 87-96.
- Rothmann, S., & Rothmann, S. (2010). Factors associated with employee engagement in South Africa. *South African Journal of Industrial Psychology, 36*(2), 1-12. doi: 104102/sajipv36i2925
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organisational Behaviour, 25*, 283-315.
- Spratt, J., Shucksmith, J., Philip, K., & Watson, C. (2006). 'Part of who we are as a school should include responsibility for well-being': Links between the school environment, mental health and behaviour. *Pastoral Care in Education, 24*(3), 14-21.
- Tsaousis, I., Nikolaou, I., Serdaris, N., & Judge, T. A. (2007). Do the core self-evaluations moderate the relationship between subjective well-being and physical and psychological health? *Personality and Individual Differences, 42*, 1441-1452.
- Vos, D., Van der Westhuizen, P. C., Mentz, P. J., & Ellis, S. M. (2012). Educators and the quality of their work environment: An analysis of the organisational climate in primary schools. *South African Journal of Education, 32*, 56-68.

Wei, C. C. (2009). Psychosocial predictors of motivation to change among adolescents with substance use disorders (Unpublished master's thesis). Ohio University, Athens.

## Appendix

Table 1

*Characteristics of Participants*

| Variable                        |                   | Frequency | Percent |
|---------------------------------|-------------------|-----------|---------|
| Gender                          | Male              | 72        | 18      |
|                                 | Female            | 322       | 82      |
|                                 | Total             | 394       | 100     |
| Categories of Age               | 21-34             | 111       | 28.2    |
|                                 | 35-49             | 155       | 39.3    |
|                                 | 50-65             | 113       | 28.7    |
|                                 | 66 and above      | 15        | 3.8     |
|                                 | Total             | 394       | 100     |
| Nature of employment            | Permanent         | 298       | 75.6    |
|                                 | Temporary         | 23        | 5.8     |
|                                 | GB appointed      | 71        | 18.1    |
|                                 | Total             | 392       | 99.5    |
| Teaching qualifications         | Diploma           | 265       | 67.2    |
|                                 | Bachelors (B.Ed.) | 115       | 28.3    |
|                                 | Total             | 380       | 96.4    |
| Highest academic qualifications | Diploma           | 166       | 42.1    |
|                                 | Bachelors         | 162       | 41.1    |
|                                 | Honours           | 50        | 12.7    |
|                                 | Masters           | 9         | 2.3     |
|                                 | PhD               | 1         | 0.3     |
|                                 | Total             | 388       | 98.5    |

Note. Not all the participants completed, therefore the differences in frequencies; GB=

Governing Body

Table 2

*Descriptive Statistics and Correlations of Measures*

| Variables    | Dimension | Mean   | SD    | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10   |
|--------------|-----------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| AAR OCDQ_Tot |           | 61.14  | 8.86  | 1.00  |       |       |       |       |       |       |       |       |      |
| MHC-SF_Tot   |           | 50.16  | 9.80  | .47** | 1.00  |       |       |       |       |       |       |       |      |
|              | EWB       | 11.51  | 2.48  | .47** | .80** | 1.00  |       |       |       |       |       |       |      |
|              | SWB       | 15.24  | 4.84  | .40** | .86** | .53** | 1.00  |       |       |       |       |       |      |
|              | PWB       | 23.46  | 4.20  | .35** | .86** | .64** | .54** | 1.00  |       |       |       |       |      |
| CSE_Tot      |           | 182.81 | 33.82 | .30** | .65** | .54** | .47** | .65** | 1.00  |       |       |       |      |
|              | PFC       | 85.30  | 16.01 | .30** | .62** | .52** | .45** | .60** | .94** | 1.00  |       |       |      |
|              | SUE       | 63.74  | 13.17 | .28** | .59** | .51** | .42** | .59** | .94** | .84** | 1.00  |       |      |
|              | SFF       | 34.25  | 7.97  | .26** | .56** | .43** | .41** | .58** | .79** | .62** | .67** | 1.00  |      |
| CSES_Tot     |           | 43.61  | 6.64  | .32** | .60** | .58** | .39** | .61** | .61** | .59** | .58** | .46** | 1.00 |

Note. NB: AAR OCDQ = Adapted and Revised Organisational Climate Description Questionnaire (reduced scale), MHC-SF = Mental Health Continuum-Short Form, EWB = Emotional Well-being, SWB = Social Well-being, PWB = Psychological Well-being, CSE = Coping Self-Efficacy Scale, PFC = Problem focused coping, SUE = Stop unpleasant emotions and thoughts, SFF = Support from friends and family, CSES = Core Self-Evaluations Scale, \*\*Correlation is significant at 1% level.

Table 3

*The Factor Loading and Item Total Correlation of Reduced Model*

| Item  | Factor Loading | Item total correlation |
|---|----------------|------------------------|
| Teachers really enjoy working at the school   | 0.76           | 0.70                   |
| The teachers are committed to the school's goals  | 0.73           | 0.61                   |
| Teachers are proud of their school  | 0.73           | 0.76                   |
| This school achieves its goals and objectives   | 0.70           | 0.82                   |
| Teachers respect the professional competence of their colleagues  | 0.69           | 0.85                   |
| Decisions made in this school are carried out effectively   | 0.68           | 0.94                   |
| The professional development planning in the school takes into account my individual needs and interests                  | 0.66           | 0.80                   |
| Learners are treated as responsible people in this school   | 0.66           | 0.75                   |
| The teachers accomplish their work with energy, vigour and pleasure   | 0.62           | 0.68                   |
| Learners make teaching at this school enjoyable   | 0.61           | 0.73                   |
| Teachers frequently discuss and share teaching methods and strategies with each other                                     | 0.59           | 0.73                   |
| New teachers are readily accepted by colleagues   | 0.56           | 0.94                   |
| I am encouraged to pursue further professional development  | 0.55           | 0.67                   |
| There are usually opposing sides among teachers on issues of importance at the school                                     | 0.54           | 0.60                   |
| I am happy with the quality of feedback I receive on my work performance  | 0.54           | 0.76                   |
| Learners come prepared to class   | 0.52           | 0.55                   |
| Teachers have fun socializing together during school breaks   | 0.49           | 0.84                   |
| Teachers are frequently asked to participate in decisions concerning administrative policies and procedures at the school | 0.48           | 0.76                   |
| The principal sets an example by working hard himself/herself   | 0.43           | 0.60                   |
| Staff meetings do not achieve their objectives  | 0.40           | 0.49                   |

Eigenvalue = 7.23; % variance explained = 36.19; F = 52.21; df = 19/363; p = 0.01

Table 4

*Confirmatory Factor Analysis: Model Fit Indices*

| Model   | $\chi^2$ | df  | p    | RMSEA | GFI  |
|---------|----------|-----|------|-------|------|
| Total   | 3585.83  | 170 | 0.01 | 0.2   | 0.58 |
| Females | 3776.24  | 170 | 0.01 | 0.21  | 0.55 |
| Males   | 2077.75  | 170 | 0.01 | 0.25  | 0.43 |

Note. NB: Total = AAR OCDQ reduced model,  $\chi^2$  = Chi-Square, df = degrees of freedom, p = p-value, RMSEA = Root Mean Square Error of Approximation, GFI = Goodness-of-fit.

**SECTION 3: ARTICLE 2**

**The prevalence of well-being on teachers in Afri Twin schools as well as non Afri Twin  
schools**

Accepted for publication in the Journal of Psychology in Africa

### 3.1 Guidelines for authors: Journal of Psychology in Africa

#### **Journal of Psychology in Africa**

##### **Instructions to authors**

##### **Manuscripts**

Manuscripts should be submitted in English, French, Portuguese or Spanish. They should be typewritten and double-spaced, with wide margins, using one side of the page only.

Manuscripts should be submitted to the Editor-in-Chief, Journal of Psychology in Africa, Professor Elias Mpofu, PhD., CRC, Associate Professor, Faculty of Health Sciences, University of Sydney, Cumberland Campus, East Street, PO Box 170 Lidcombe NSW 1825, Australia, email: e.mpofu@usyd.edu.au. We encourage authors to submit manuscripts via e-mail, in MS Word, but we also require two hard copies of any e-mail submission. Before submitting a manuscript, authors should peruse and consult a recent issue of the *Journal of Psychology in Africa* for general layout and style. Manuscripts should conform to the publication guidelines of the latest edition of the American Psychological Association (APA) publication manual of instructions for authors.

##### **Manuscript format**

All pages must be numbered consecutively, including those containing the references, tables and figures. The typescript of manuscripts should be arranged as follows:

**Title:** This should be brief, sufficiently informative for retrieval by automatic searching techniques and should contain important key-words (preferably <10 words).

**Author(s) and Address(es) of author(s):** The corresponding author must be indicated. The author's respective addresses where the work was done must be indicated. An e-mail address, telephone number and fax number for the corresponding author must be provided.

**Abstract:** Articles and abstracts must be in English. Submission of abstracts translated to French, Portuguese and/or Spanish is encouraged. For data-based contributions, the abstract

should be structured as follows: *Objective* - the primary purpose of the paper, *Method* ó data source, subjects, design, measurements, data analysis, *Results* ó key findings, and *Conclusions* ó implications, future directions. For all other contributions (except editorials, letters and book reviews) the abstract must be a concise statement of the content of the paper. Abstracts must not exceed 120 words. It should summarize the information presented in the paper but should not include references.

**Referencing:** Referencing style should follow APA manual of instructions for authors.

**References in text:** References in running text should be quoted as follows: (Louw & Mkize, 2004), or (Louw, 2004), or Louw (2000, 2004a, 2004b), or (Louw & Mkize, 2004), or (Mkize, 2003; Louw & Naidoo, 2004). All surnames should be cited the first time the reference occurs, e.g., Louw, Mkize, and Naidoo (2004) or (Louw, Mkize, & Naidoo, 2004). Subsequent citations should use **et al.**, e.g. Louw et al. (2004) or (Louw et al., 2004).

Unpublished observations and personal communications may be cited in the text, but not in the reference list. Manuscripts accepted but not yet published can be included as references followed by *in press*

**Reference list:** Full references should be given at the end of the article in alphabetical order, using double spacing. References to journals should include the author's surnames and initials, the full title of the paper, the full name of the journal, the year of publication, the volume number, and inclusive page numbers. Titles of journals must not be abbreviated. References to books should include the author's surnames and initials, the year of publication, the full title of the book, the place of publication, and the publisher's name.

References should be cited as per the examples

below:

- Appoh, L. (1995). The effects of parental attitudes, beliefs and values on the nutritional status of their children in two communities in Ghana (Unpublished master's thesis). University of Trondheim, Norway.
- Peltzer, K. (2001). Factors at follow-up associated with adherence with directly observed therapy (DOT) for tuberculosis patients in South Africa. *Journal of Psychology in Africa, 11*, 165-185.
- Sternberg, R. J. (2001, June). *Cultural approaches to intellectual and social competencies*. Paper presented at the Annual Convention of the American Psychological Society, Toronto, Canada.
- Cook, D. A., & Wiley, C. Y. (2000). Psychotherapy with members of the African American churches and spiritual traditions. In P. S. Richards & A. E. Bergin (Ed.), *Handbook of psychotherapy and religiosity diversity* (pp. 369-396). Washington, DC: American Psychological Association.

**Tables:** Tables should be either included at the end of the manuscript or as a separate file.

Indicate the correct placement by indicating the insertion point in brackets, e.g., <Insert Table 1 approximately here>. Tables should be provided as either tab-delimited text or as a MS Word table (One item/cell). Font for tables should be Helvetica text to maintain consistency.

**Figures/Graphs/Photos:** Figures, graphs and photos should be provided in graphic format (either JPG or TIF) with a separate file for each figure, graph or photo. Indicate the correct placement by indicating the insertion point in brackets, e.g., <Insert Figure 1 approximately here>. Provide the title for the item and any notes that should appear at bottom of item in the manuscript text. Items should be cropped to avoid the appearance of superfluous white space around items. Text on figures and graphs should be Helvetica to maintain consistency.

Figures must not repeat data presented in the text or tables. Figures should be planned to appear to a maximum final width of either 80 or 175 mm. (3.5 or 7.0"). Complicated

symbols or patterns must be avoided. Graphs and histograms should preferably be two-dimensional and scale marks provided. All lines should be black but not too heavy or thick (including boxes). Color only in photos or color sensitive graphic illustrations. Extra charges will be levied for color printing.

**Text:** 1. Do not align text using spaces or tabs in references. Use one of the following: (a) use CTRL-T in Word 2007 to generate a hanging indent or (b) MS Word allows author to define a style (e.g., reference) that will create the correct formatting. 2. Per APA guidelines, double space should follow any punctuation. 3. Do not insert spaces at the beginning or end of paragraphs. 4. Do not use color in text.

**Lead authors will receive a complimentary issue of the journal issue in which their article appears.** Reprints in PDF format can be purchased from the publishers, Elliott & Fitzpatrick. The Journal does not place restriction on manuscript length but attention is drawn to the fact that a levy is charged towards publication costs which is revised from time to time to match costs of production. Instructions for remitting the publication levy are provided to lead or corresponding authors by the Editorial Assistant of the journal.

Instructions to authors are available at:

**<http://www.elliottfitzpatrick.com>**

3.2 Manuscript: The prevalence of well-being on teachers in Afri Twin schools as well as non Afri Twin schools

The prevalence of well-being on teachers in Afri Twin schools as well as non Afri Twin  
schools

Werner de Klerk\*

Q. Michael Temane

Alida W. Nienaber

North-West University, South Africa.

Corresponding author: W de Klerk\*

School of Psychosocial Behavioural Sciences: Psychology

Private Bag X6001

Potchefstroom 2520

Internal Box 206

12998699@nwu.ac.za

## Abstract

This study explored the prevalence of well-being in Afri Twin and non Afri Twin teachers. The Afri Twin project allows schools of comparable type and size in Britain and South Africa to be 'twinned' with each other, with a possible 'twinning' with a third school in a rural or township area in South Africa. A quantitative cross-sectional survey design was implemented and the sample consisted of 97 Afri Twin teachers (20 male and 77 female) and 297 non Afri Twin teachers (52 male and 245 female) from 40 South African schools (13 Afri Twin and 27 non Afri Twin). The Mental Health Continuum - Short Form (MHC-SF), the Core Self-Evaluations Scale (CSES) and Coping Self-Efficacy Scale (CSE) were used to determine the well-being of teachers. The results indicated a moderate to high level of well-being, with an almost significant difference in social well-being and core self-evaluations between Afri Twin and non Afri Twin teachers. It has been concluded that the social context of the 'twinning' process in Afri Twin schools could influence the social well-being of teachers.

*Keywords:* Afri Twin, well-being, mental health, coping self-efficacy, core self-evaluations, positive organisational behaviour, school social environment.

The prevalence of well-being on teachers in Afri Twin schools as well as non Afri Twin schools

### **Introduction**

The pressure on educators to function effectively and meaningfully in the school system is immense. In the same vein, discussions of the well-being of teachers has increased over the last decade (Fernet, Guay, Senècal, & Austin, 2012; Jackson & Rothmann, 2006; Montgomery, Mostert, & Jackson, 2005; Ross, Romer, & Horner, 2012; Saleem & Shah, 2011; Skaalvik & Skaalvik, 2010; Willers, 2009). In South Africa, Vos, Van der Westhuizen, Mentz and Ellis (2012) found that teachers do not experience the organisational climate (environment) in their schools as positive enough for creating an environment favourable for teaching and learning. Ross et al. (2012) also indicated that teachers experience a lack of support emotionally. From an organisational perspective, teachers' work is becoming more complicated and trying (Jackson & Rothmann, 2006). Teachers have higher numbers of learners/students per class that they need to cope with, the increasing scope of the syllabi, inadequate classroom climate, little support from co-workers, low salaries, lack of material aid to accomplish task effectiveness, and increased specialisation (Jackson & Rothmann 2006; Montgomery et al., 2005).

Literature in positive organisational studies shows that work characteristics (job demands and job resources) are related to well-being (Williams, Wissing, Rothmann, & Temane, 2010). Availability of resources supports well-being and the presence of demands without resources (Schaufeli & Bakker, 2004; Yonezawa, Jones, & Singer, 2011) and this has important implications for the future turnover intentions and resilience (Bakker, Hakenen, Demerouti, & Xanthopoulou, 2007). In this study teachers at two types of schools (description of schools is given in the methods section) are asked specifically how they

experience the climate of their school and whether they have an intention to look for other employment. There are few if any studies on the prevalence of well-being of educators in schools and this especially so in a unique situation where a cultural exchange is occurring as a form of socio-cultural support such as the Afri Twin Schools' project. This study compares the prevalence of well-being of educators who have experienced the Afri Twin and those who have not.

### *Positive Organisational Behaviour*

According to Luthans (2002, p. 659) Positive Organisational Behaviour (POB) is interested in "the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace". Failure to properly value the positive aspects of work may limit desired results (Bakker & Schaufeli, 2008). According to Bakker and Schaufeli (2008) factors such as positive communication and expressions of support among co-workers are essential to positive organisational behaviour. Research by Bakker, Demerouti and Euwema (2005) found that job demands (amount of work, physical demands, emotional demands, and work-home interference) did not result in high levels of burnout if the employees experienced job resources (feedback regarding their work performance, social support, and independence). Therefore environmental contributors are important to happiness in organisations (Fisher, 2010).

According to Fisher (2010) research in the past has tended to underestimate the need and importance of happiness in the workplace. However, happiness within the workplace is more than merely job satisfaction (Fisher, 2010). When conceptualising and measuring happiness within the workplace it is important to look at work engagement (effective and cognitive involvement and enjoyment of the work itself), job satisfaction (pay, co-workers,

work environment and cognitive judgements about the job), and affective organisational commitment (Fisher, 2010). According to Fisher (2010) the causes to happiness in organisations would be found in the work environment, and these environmental contributors are supervision, pay, career issues, leader behaviour, perceived performance and the influence of other people within the workplace.

Visser (2006) argues that organisational productivity will decrease if the employees' well-being is not properly attended to. Various contextual factors can influence the functioning of a school and the well-being of teachers. Educators (teachers and school principals) experience directly the unfavourable effects of these school environments (climate) that can cause high levels of stress that in turn can bring on negative well-being such as burnout (Ruiz-Mock, 2007). Factors such as poverty (Donald, Lazarus, & Lokwana, 2002; Mbatha, 2005), school set up and domestic circumstances (Olivier, 2006), insufficient financial support (Ndimande, 2006), and material conditions (Masitsa, 2004) influence the functioning of schools. It can be argued that if a school receives some social support through collaboration with a well-resourced school, some benefit to their well-being could be experienced. The Afri Twin project is regarded as a possible socio-cultural interaction to support a variety of processes in the school.

Many important constructs in Positive Psychology have been used to indicate optimal functioning, as cited in the literature (Chesney, Folkman, & Chambers, 1996; Judge, Van Vianen, & De Pater, 2004; Keyes et al., 2008; Ruiz-Mock, 2007; Stewart, Sun, Patterson, Lemerle, & Hardie, 2004; Williams et al., 2010). An ongoing debate is still about whether well-being is distinctly eudaimonic or hedonic or both (Khumalo, 2011; Ryan & Deci, 2001; Waterman, 1993), can be seen as a continuum (Keyes et al., 2008) or a combination of both. Wissing and Van Eeden (2002) argued that a person who is well experiences a sense of coherence, life satisfaction and positive affect-balance. According to Walker (1999),

psychological well-being seems to be multidimensional with regard to aspects of self-involvement (e.g. affect, cognitions, and behaviour), and with regard to the areas of life in which these aspects manifest themselves (intra- and interpersonal, social and contextual, in love and work). Thus the prevalence of well-being is examined in this study based on the conceptualisation of mental health by Keyes, core self-evaluation and self-efficacy.

In this study well-being is conceptualised in terms of Keyes's mental health continuum. Keyes et al. (2008) indicate that well-being can be subjective, meaning individuals appraise themselves regarding the quality of their lives such as experiences, relationships and accomplishments. Distinctions among approaches to well-being seem to differ whether conceptualisations are regarded as holistic or specific to a context. Largely well-being is conceptualised from two different philosophical perspectives, namely hedonism and eudaimonism (Henderson & Knight, 2012). Hedonic well-being is the maximum duration of pleasant, positive feelings in life while reducing unpleasant, negative feelings (Khumalo, Temane, & Wissing, 2012). Therefore well-being consists of perceptions of pleasure, happiness, life satisfaction, and the balance of positive to negative affect over a period of time (Keyes et al., 2008). On the other hand, eudaimonia refers to the capability of a person to function positively in life (Strauss, 2007; Keyes et al., 2008), thus well-being is more than merely happiness, and seen as the actualisation of human potentials, meaning in life, self-realisation and purpose in life. Keyes's (2005a) model is considered a holistic one as it covers both aspects of well-being in the mental health continuum.

### **Conceptual aspects of well-being**

#### *Mental health continuum*

Keyes's Model of well-being (2005a, p. 88) conceptualises mental health as a syndrome of subjective well-being consisting of symptoms of hedonic (emotional well-being)

and eudaimonia (social- and psychological well-being)ö, and not only the absence of mental illness. Mental health is the presence of something positive: in other words, the realisation of a person's own abilities in coping with normal stressors of life, working productively, or contributing to his/her community (Keyes, 2007). This model has been selected in this study as it is holistic and has been validated in a South African context (Keyes et al., 2008) and also elsewhere in the world in a number of other studies (Gallagher, Lopez, & Preacher, 2009; Keyes, 2005b; Lamers, Westerhof, Bohlmeijer, Ten Klooster, & Keyes, 2011; Robitschek & Keyes, 2009; Salama-Younes, 2011). Several other variables such as core self-evaluations, coping self-efficacy and resilience have been shown to be important for well-being especially as they may play a moderational or mediational role for positive psychological outcomes as influenced by contexts.

#### *Core self-evaluations and psychological well-being*

Core self-evaluations are also considered very important regarding positive psychological functioning. According to Tsaousis, Nikolaou, Serdaris and Judge (2007), the concept of core self-evaluations is a construct within the domain of the personality which can serve as a potential moderator of the relationship between health functioning and subjective well-being. According to Tsaousis et al. (2007) core self-evaluation:

is a broad personality construct indicated by four specific traits: (a) self-esteem (i.e., the basic appraisal that a person makes of his worth), (b) generalized self-efficacy (i.e., a person's global estimate of his ability to mobilize the motivation and abilities needed to achieve important outcomes), (c) locus of control (i.e., the degree to which an individual believes that he/she [rather than the environment or fate] controls events in his/her life), and (d) neuroticism, which defines the lack of emotional stability of an individual and his tendency to dwell on the negative. (p. 1443)

According to Judge et al. (2004, pp. 328-329), "Individuals with positive core self-evaluations appraise themselves as capable, worthy, and in control of their lives". In this study levels of core self-evaluations were examined relative to well-being.

#### *Coping self-efficacy and psychological well-being*

According to Saleem and Shah (2011), stress among teachers is a worldwide concern. Coping self-efficacy is included in this study to establish whether there are differences in the coping strategies by teachers at two different types of schools. Research shows that self-efficacy predict both psychological well-being (negative affect, positive affect and life satisfaction) and engagement such as dedication and vigour (Williams et al., 2010). Lack of self-efficacy remains one of the most significant stressors for teachers (Saleem & Shah, 2011). Self-efficacy is a quality ascribed to the beliefs of individuals about their capacity to muster/accumulate the cognitive resources, the motivation and actions needed to fulfil the demands of the given situation (Wood & Bandura, 1989, as cited in Saleem & Shah, 2011). According to Ozer and Bandura (1990), self-efficacy beliefs affect the self-regulation of cognitive processes, therefore Albert Bandura defines self-efficacy as a belief one holds about his/her ability to perform a certain task (Saleem & Shah, 2011). Based on research done by several researchers, teacher self-efficacy has been shown to predict teacher aspirations and goals, teachers' attitudes towards change and innovation, teachers' susceptibility to refer difficult learners/students to special education, teachers' use of strategies for teaching, and the likelihood that teachers stay in the profession of teaching (Skaalvik & Skaalvik, 2010).

Previous studies have shown that a number of factors, including workload/job demands, emotions about work environment and turnover intention, specifically influence well-being (Bakker et al., 2007; Kumar Mishra & Bhatnagar, 2010; Schaufeli & Bakker, 2004; Yonezawa et al., 2011; Williams et al., 2010). Workload is conceptualised by Fakir

(2010, p 18) as "a stressor produced from the organisational environment". Therefore according to Farmer and Brownson (2003, as cited in Fakir, 2010), workload comprises three dimensions (task demands, effort, and performance), which are derived from the work environment. Experiences of amount of work can be looked at in terms of affect (Schaufeli & Bakker, 2004). Research has shown that the different work environments are experienced either positively or negatively (Schaufeli & Bakker, 2004). Turnover intention or the decision to leave a job has also shown to be linked to well-being (Kumar Mishra & Bhatnagar, 2010). In this study it is hypothesised that these factors will influence the prevalence of psychological well-being.

The research question would then be:

What is the prevalence of well-being on teachers at Afri Twin and non Afri Twin schools?

### **Objective**

The study has the following objective:

To determine the prevalence of well-being (mental health, core self-evaluations and coping self-efficacy characteristics) of teachers at Afri Twin and non Afri Twin schools. The working conditions of teachers are also examined as a background to understand their well-being.

### **Research Methodology**

#### **Research Design and Study Context**

A quantitative cross-sectional survey design was implemented to answer the study question. The quantitative aspect of the design focussed on the measures of mental health,

core self evaluations and coping self-efficacy, comparing two types of schools where one group of schools experienced a 'twinning' with a British school.

The Afri Twin Project was initiated by Ms Jayne Martin (South African native) in Great Britain in 2001. Afri Twin works as follows: Schools of comparable type and size in Britain and South Africa are selected and then "twinning" with each other, with a possible "twinning" with a third school in a rural or township area in South Africa (De Klerk & Nienaber, 2011). The intention of The Afri Twin project is to create friendships over time between school principals, teachers and learners. As the relationships between the different schools develop, opportunities will follow, allowing the schools to visit one another, to exchange teaching ideas and experiences, and to gain first-hand experience of the different conditions in which the individual schools are operating (De Klerk & Nienaber, 2011).

### **Participants**

The sample consisted of 97 Afri Twin teachers (20 male and 77 female) and 297 non Afri Twin teachers (52 male and 245 female). A total of 40 schools (13 Afri Twin and 27 non Afri Twin) were from South Africa. Convenience sampling method was used in this study (Maree & Petersen, 2009). See table 1 for the characteristics of the participants.

< Insert table 1 approximately here >

### **Instruments**

Three measuring instruments were used to determine the prevalence of well-being in Afri Twin and non Afri Twin teachers. Demographic information such as gender, age and turnover intention were sourced using a demographic questionnaire compiled by the first author.

The *Mental Health Continuum – Short Form* (MHC-SF: Keyes, 2005a; Keyes, 2007; Keyes et al., 2008) consists of 14 items. The degree of emotional well-being (EWB) is measured by items one to three. Emotional well-being is defined in terms of positive affect (PA) divided by life satisfaction. The degree of social well-being (SWB) is measured by items four to eight, one item on each of the aspects of social acceptance, social actualisation, social contribution, social coherence, and social integration. Finally, the degree of psychological well-being (PWB) is measured by items nine to 14 in terms of autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. In a South African study by Keyes et al. (2008), factor analyses revealed that the MHC-SF replicated the three-factor structure of emotional, psychological and social well-being found in US samples. The internal reliability of the overall MHC-SF Scale was 0.74 (Keyes et al., 2008). The Cronbach alpha of the MHC-SF Scale for this study was 0.89.

The *Core Self-Evaluation Scale* (CSES: Gardner & Pierce 2009; Tsaousis et al., 2007) is a 12-item unidimensional scale developed by Judge et al. (2003, as cited in Gardner & Pierce, 2009). Sample items included "I am confident I get the success I deserve in life" and "when I try, I generally succeed," each of which is assessed by a 5-point Likert-type scale. The main advantage of this questionnaire is that it has been designed to measure the underlying concept itself rather than the particular indicators of the concept (Tsaousis et al. 2007). According to Tsaousis et al. (2007), despite the salience of the traits that compose this construct (self-esteem, generalised self-efficacy, locus of control, and neuroticism), it has been relatively uncommon for researchers to study these traits together. In the study of Tsaousis et al (2007) the alpha coefficient score for CSES was 0.80 and in a South African study by Dodd and Snelgar (n.d.) the reliability was 0.61. The Cronbach alpha of the CSES for this study was 0.83.

The *Coping Self-Efficacy Scale* (CSE: Chesney et al., 1996; Wei, 2009) was originally a 26-item scale that measured the individual's self-efficacy to cope with life stressors (Chesney et al., 1996). Responses to the self-efficacy scale are based on an 11-point Likert scale, ranging from 0 (cannot do at all) to 10 (certainly can do). The coping self-efficacy scale consists of three sub-scales, problem focused coping (PFC), stop unpleasant emotions and thoughts (SUE), and support from friends and family (SFF). A coping self-efficacy score can be created by summing the item ratings; higher scores indicate higher self-efficacy. The alpha coefficient ( ) for the Chesney et al. (1996) study was 0.95 and in a South African study by Wissing, Wissing, Du Toit and Temane (2008) the total alpha coefficient was 0.87. The Cronbach alpha of the CSE in this study was 0.94.

### **Ethical Consideration**

Ethical approval was obtained from the Ethics Committee of the North-West University (Potchefstroom Campus: NWU-0072-08-S1). The essential purpose of research ethics is to protect the welfare of research participants (Wassenaar, 2006). Therefore, ethical considerations were taken into account by respecting the rights, needs, values, and desires of the participants (Creswell, 1994). Consent was obtained from the school principals of each school as well as all the participants to participate voluntarily in the study. The different participants were requested to sign consent forms. Informed and voluntary participation was ensured in this way. The participants were informed that their identity would be protected and that they could withdraw from the research project at any time.

### **Results**

To gain a broad perspective on the objective of the study, the working conditions of teachers were examined on the basis of 4 variables namely: experience regarding amount of work; salary increase in the last three years; amount of administrative work outside of their

normal teaching responsibilities; and how they experience their school. Table 2 below summarises the frequencies of the 4 variables.

< Insert table 2 approximately here >

A turnover intention question was also asked, namely, "In the last 6 months, have you searched for other forms of employment?" and teachers predominantly indicated that they had not sought other employment (79.4 % of Afri Twin and 84.2 % of non Afri Twin). A majority of the teachers (75.3 % of Afri Twin and 78.5 % of non Afri Twin) are satisfied with the amount of work they do. A preponderance (majority) of teachers (80.4 % of Afri Twin and 95 % of non Afri Twin) have had a salary increase in the last three years. In terms of the place of work, 91.8 % of Afri Twin teachers and 90.9 % of non Afri Twin teachers are satisfied with the school where they teach.

The table below shows the descriptive statistics of the quantitative measures used in the study.

< Insert table 3 approximately here >

Table 3 above shows that all measures used in this study are reliable based on the parameters suggested by Pietersen and Maree (2009). The correlations are consistent with the theoretical expectations where the subscales of MHC-SF are all positively and significantly correlated with the subscales of the CSE and the CSES. These correlations all have moderate to high effect sizes as explained by Field (2005, p. 32).

The table below summarises the distribution of well-being as measured by the mental health continuum (EWB, SWB, PWB), and the CSE (PFC, SUE, SFF) and CSES.

< Insert table 4 approximately here >

In terms of the mental health continuum participants experienced moderate to high emotional, social, and psychological well-being compared to low levels for both Afri Twin

and non Afri Twin school teachers. However, there is an almost significant difference in the social well-being of teachers and much the same with core self-evaluation. The social well-being will be closely examined using a regression analysis with the following as independent variables: experience regarding amount of work, how do you experience your school, and turnover intention. This will aid in understanding the importance of their situational variables in the experience of organisational climate.

< Insert table 5 approximately here >

Table 5 summarises a stepwise linear regression of social well-being as a dependent variable and the following as predictors: experience regarding amount of work, how do you experience your school, and turnover intention. In step 1 the experience of amount of work was included and this independent variable predicted 5 % of the variance in social well-being ( $\beta = -0.21$ ). The inclusion of an additional independent variable in step 2 (how do you experience your school) yielded a 14 % explanation of the variance in social well-being. Step 3 included 3 independent variables with turnover intention as the third variable and predicted 15 % of the change in social well-being. All models were significant based on the t-test indicating a difference in the comparison of the two groups of schools in one model.

The table above also shows that the change in the coefficient of determination ( $R^2$ ) improved by 9 % from step 1 to step 2. This may suggest the importance of the experience of school environment. The path coefficient of experience of school' in step 2 was -0.36.

The two types of schools (Afri Twin and non Afri Twin) were split for the final analyses. Two separate regression analyses were performed with social well-being as dependent variable. The inclusion of the 3 independent variables as above yielded the following coefficient of determination for Afri Twin schools ( $R^2_1 = 0.05$ ,  $R^2_2 = 0.27$ ,  $R^2_3 = 0.28$ ) and the non Afri Twin schools ( $R^2_1 = 0.05$ ,  $R^2_2 = 0.12$ ,  $R^2_3 = 0.13$ ). The path

coefficient of the 'experience of the school' was higher for Afri Twin schools ( $\beta = -0.54$ ) than for to the non Afri twin schools ( $\beta = -0.31$ ).

### **Discussion**

The results of the study showed that well-being in the two types of schools tended to be moderate to high. There was an almost significant finding for differences on social well-being and core self-evaluations. If this finding had held, it could be hypothesised that 'twinning' influences the social context of the school. Research has indicated that support (from colleagues) in the early years of teaching do influence efficacy (Woolfolk Hoy, 2000). According to Bandura (1993), and Tschannen-Moran and Barr (2004) the shared beliefs of teachers influence the social environment (climate) of the school.

According to Bandura (1993, p. 141) "the belief systems of staff create school cultures that can have vitalizing or demoralizing effects on how well schools function as a social system". Therefore, the 'twinning' of the Afri Twin project could help to create a positive belief system among staff influencing the school culture/climate in a positive manner by contributing to the social well-being of the teachers/staff as well as the social environment of the school. Based on the findings of core self-evaluation which indicated that there is almost a significant difference between the Afri Twin and non Afri Twin teachers, it can be concluded that the psychological functioning of the Afri Twin teachers in this study regarding their core self-evaluations was more positive than would be expected and more positive than the non Afri Twin teachers.

Teachers were also satisfied with the experience of their schools. However, it was indicated that administrative work outside of their teaching responsibilities was high or 'a lot'. This was the same for teachers in the Afri Twin and non Afri Twin schools. The turnover intention (no) was higher in non Afri Twin schools than in Afri Twin schools. The findings

are consistent with observations made by Jackson and Rothmann (2006) that teachers experience work as more 'demanding'. The nature of teaching in South African schools show that job-related stress was a growing factor facing educators (Jackson & Rothmann, 2005), and that there is a considerable increase in workload (Swanepoel, 2009).

The scales of the measurement used in this study indicated high reliability. Pietersen and Maree (2009) indicate that the acceptable Cronbach alpha coefficient is 0.70 (low reliability), 0.80 (moderate reliability), and 0.90 (high reliability). Previous studies in an African context confirmed the reliability of the main study measure MHC-SF (Keyes et al., 2008), CSE (Wissing et al., 2008), and CSES (Dodd & Snelger, n.d.). There has been an increase in the drive for reliable measures in positive psychology over the past few years. More measures of optimal functioning are being validated in the African context (De Klerk, Temane, & Nienaber, 2013; Keyes et al, 2008; Koen, Van Eeden, & Wissing, 2011, Wissing et al., 2008).

A stepwise linear regression of social well-being as a dependent variable was also calculated in this study. Three models were used as independent variables, and all three models were significant based on the t-test analysis indicating a difference in the comparison of the Afri Twin and non Afri Twin schools. The path coefficient of 'experience of school' was higher for Afri Twin schools, indicating that the Afri Twin teachers' experience of their school environment in comparison to non Afri Twin teachers experiences of school, does have a possible significant influence on their social well-being. Therefore the context of the 'social environment and social interaction' in and between Afri Twin schools, possibly influence the social well-being of teachers in comparison to non Afri Twin teachers that are not involved in such 'twinning' processes.

Overall the well-being of teachers in the light of their demanding work environments was found to be moderate to high.

### **Limitations and Recommendations**

The present study was a survey. Surveys are known to focus on experiences at a specific point in time and this was similar to the present study. However, the present study makes a contribution by highlighting important aspects in the functioning of teachers. Future studies could implement a longitudinal study and focus on equivalence of constructs such as well-being in the school context.

### **Conclusion**

The objective of this study was to determine the prevalence of well-being (mental health, core self-evaluations and coping self-efficacy characteristics) of teachers at Afri Twin and non Afri Twin schools. The results indicated a moderate to high level of well-being in both Afri Twin and non Afri Twin teachers. However, the results also showed an almost significant difference in the social well-being and core self-evaluations of the two types of schools. Therefore it could be hypothesised that the social context of the 'twinning' process in Afri Twin schools can possibly positively influence the social well-being of teachers.

## References

- Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Organisational Health Psychology, 10*, 170-180.
- Bakker, A. B., Hakenen, J. J., Demerouti, E., & Xathopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology, 99*(2), 274-284. doi: 10.1037/0022-0663.99.2.274
- Bakker, A. B., & Schaufeli, W. B. (2008). Positive organizational behavior: Engaged employees in flourishing organizations. *Journal of Organizational Behavior, 29*, 147-154. doi: 10.1002/job.515
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*, 117-148.
- Chesney, M., Folkman, S. & Chambers, D. (1996). Coping effectiveness training for men living with HIV: Preliminary findings. *International Journal of STD and AIDS, 7*(2), 75-82.
- Creswell, J. W. (1994). *Research design: Qualitative and quantitative approaches*. Thousand Oaks, California: Sage Publications, Inc.
- De Klerk, W., & Nienaber, A. W. (2011). A discussion of a unique collaboration model between schools. *Psychology Research, 1*(3), 170-181.
- De Klerk, W., Temane, Q. M., & Nienaber, A. W. (2013). The psychometric properties of the Adapted and Revised Organisational Climate Description Questionnaire (AAROCDDQ). *Journal of Psychology in Africa, 23*(1), 139-144.

- Dodd, N., & Snelgar, R. (n.d.). *Core Self-Evaluations and Black Consciousness in post-apartheid Zululand, South Africa*. Retrieved March 27, 2013 from <http://www.ipedr.com>
- Donald, D., Lazarus, S., & Lolwana, P. (2002). *Educational psychology in social context* (2nd ed.). Cape Town: Oxford University Press.
- Fakir, Z. (2010). Examination of the instantaneous relationship between perceptions of workload on emotions in the context of a longitudinal study (Unpublished master's thesis). University of the Witwatersrand, Johannesburg.
- Fernet, C., Guay, F., Senècal, G., & Austin, S. (2012). Predicting intraindividual changes in teacher burnout: The role of perceived school environment and motivational factors. *Teaching and Teacher Education, 28*, 514-525.
- Field, A. (2005). *Discovering statistics using SPSS* (2nd ed.). London, England: SAGE Publications.
- Fisher, C. D. (2010). Happiness at work. *International Journal of Management Review, 12*, 384-412. doi: 10.1111/j.1468-2370.2009.00270.x
- Gallagher, M. W., Lopez, S. J., & Preacher, K. J. (2009). The hierarchical structure of well-being. *Journal of Personality, 77*, 1025-1049.
- Gardner, G., & Pierce, L. (2009). The Core Self-Evaluation Scale: Further construct validation evidence. *Educational Psychological Measurement, 70*(2), 291-304.
- Henderson, L. W., & Knight, T. (2012). Integrating the hedonic and eudaimonic perspectives to more comprehensively understand wellbeing and pathways to wellbeing. *International Journal of Wellbeing, 2*(3), 196-221. doi: 10.5502/ijw.vi3.3

- Jackson, L. T. B., & Rothmann, S. (2005). An adapted model of burnout for educators in South Africa. *South African Journal of Education, 25*(2), 100-108.
- Jackson, L. T. B., & Rothmann, S. (2006). Occupational stress, organisational commitment, and ill health of educators in the North West Province. *South African Journal of Education, 26*(1), 75-95.
- Judge, T. A., Van Vianen, A. E., & De Pater, I. E. (2004). Emotional stability, core self evaluations, and job outcomes: A review of the evidence and an agenda for future research. *Human Performance, 17*, 327-347.
- Keyes, C. L. M. (2005a). Chronic physical conditions and aging: Is mental health a potential protective factor? *Ageing International, 30*(1), 88-104.
- Keyes, C. L. M. (2005b). The subjective well-being of America's youth: Toward a comprehensive assessment. *Adolescent and Family Health, 4*, 3-11.
- Keyes, C. L. M. (2007). Promoting and protecting mental health as flourishing: A complementary strategy for improving national mental health. *American Psychologist, 63*(2), 95-108.
- Keyes, C. L. M., Wissing, M. P., Potgieter, J. P., Temane, Q. M., Kruger, A., & Van Rooy, S. (2008). Evaluation of the Mental Health Continuum-Short Form (MHC-SF) in Setswana-Speaking South Africans. *Clinical Psychology and Psychotherapy, 15*, 181-192.
- Khumalo, I. P. (2011). The evaluation of the general psychological well-being and the mental health continuum models in an African context (Unpublished doctoral dissertation). North-West University, Potchefstroom.

- Khumalo, I. P., Temane, Q. M., & Wissing, M. P. (2012). Socio-demographic variables, general psychological well-being and the mental health continuum in an African context. *Soc Indic Res, 105*, 419-442. doi: 10.1007/s11205-010-9777-2
- Kumar Mishra, S., & Bhatnagar, D. (2010). Linking emotional dissonance and organizational identification to turnover intention and emotional well-being: A study of medical representatives in India. *Human Resources Management, 49*(3), 401-419.
- Koen, M. P., Van Eeden, C., & Wissing, M. P. (2011). The prevalence of resilience in a group of professional nurses. *Health South Africa Gesondheid, 16*(1), 1-11. doi: 10:4102/hsag.v16i1.576
- Lamers, S. M. A., Westerhof, G. J., Bohlmeijer, E. T., Ten Klooster, P. M., & Keyes, C. L. M. (2011). Evaluating the psychometric properties of the Mental Health Continuum-Short Form (MHC-SF). *Journal of Clinical Psychology, 67*(1), 99-110.
- Luthans, F. (2002). The need for and meaning of positive organizational behaviour. *Journal of Organizational Behavior, 26*, 695-706.
- Maree, K., & Pietersen, J. (2009). Sampling. In K. Maree (Ed.), *First Steps In Research* (3rd ed., pp. 172-180). Pretoria: Van Schaik Publishers.
- Masitsa, M. G. (2004). Four critical causes of underachievement in township secondary schools. *Acta Academica, 36*(1), 213-245.
- Mbatha, P. N. (2005). The implementation of an institutional support team in a rural primary school in KwaZulu-Natal (Unpublished master's dissertation). University of Johannesburg, Johannesburg.

- Montgomery, A., Mostert, K., & Jackson, L. (2005). Burnout and health of primary school educators in the North-West Province. *South African Journal of Education, 25*(4), 266-272.
- Ndimande, B. (2006). Parental choice: The liberty principle in education finance. *Perspectives in Education, 24*(2), 143-156.
- Olivier, M. A. J. (2006). The impact of deprived environments on learner motivation. *Africa Education Review, 3*(1+2), 48-66.
- Ozer, E. M., & Bandura, A. (1990). Mechanisms governing empowerment effect: A self efficacy analysis. *Journal of Personality and Social Psychology, 58*(2), 472-486.
- Pietersen, J., & Maree, K. (2009). Statistical analysis 1: Descriptive statistics. In K. Maree (Ed.). *First Steps in Research* (3rd ed., pp. 183-195). Pretoria: Van Schaik Publishers
- Robitschek, C., & Keyes, C. L. M. (2009). The structure of Keyes model of mental health and the role of personal growth initiative as a parsimonious predictor. *Journal of Counseling Psychology, 56*, 321-329.
- Ross, S. W., Romer, N., & Horner, R. H. (2012). Teacher well-being and the implementation of school-wide positive behavior interventions and supports. *Journal of positive Behavior Interventions, 14*(2), 118-128.
- Ruiz-Mock, M. (2007). Female school leadership, educator resilience strategies, and student outcomes in an English primary school (Unpublished doctoral dissertation). University of Phoenix, Arizona.
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52*, 141-166. doi: 10.1146/annurev.psych.52.1.141

- Salama-Younes, M. (2011). Positive mental health, subjective vitality and satisfaction with life for French physical education students. *World Journal of Sport Sciences*, 4(2), 90-97.
- Saleem, A., & Shah, A. (2011). Self-efficacy as a stress-coping mechanism among teachers: A critical literature review. *African Journal of Business Management*, 5(35), 13435-13441. doi: 10.5897/AJBMX11.023
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organisational Behaviour*, 25, 283-315.
- Skaalvik, E. M., & Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education*, 26, 1059-1069.
- Stewart, D., Sun, J., Patterson, C., Lemerle, K., & Hardie, M. (2004). Promoting and building resilience in primary school communities: Evidence from a comprehensive health promoting school approach. *International Journal of Mental Health Promotion*, 6(3), 26-33.
- Strauss, R. (2007). A positive perspective on adolescent mental health. *Continuing Medical Education*, 25(5), 232-235.
- Swanepoel, C. (2009). A comparison between the views of teachers in South Africa and six other countries on involvement in school change. *South African Journal of Education*, 29, 461-474.
- Tsaousis, I., Nikolaou, I., Serdaris, N., & Judge, T. A. (2007). Do the core self-evaluations moderate the relationship between subjective well-being and physical and psychological health? *Personality and Individual Differences*, 42, 1441-1452.

- Tschannen-Moran, M., & Barr, M. (2004). Fostering learning: The relationship of collective teacher efficacy and student achievement. *Leadership and Policy in Schools*, 3(3), 189-209. doi: 10.1080/15700760490503706
- Visser, C. A. (2006). Emotion work and well-being of secondary school educators (Unpublished master's dissertation). North-West University, Potchefstroom.
- Vos, D., Van der Westhuizen, P. C., Mentz, P. J., & Ellis, S. M. (2012). Education and the quality of their work environment: An analysis of the organisational climate in primary schools. *South African Journal of Education*, 32, 56-68.
- Walker, H. J. (1999). Clarifying the affective component of psychological well-being (Unpublished master's dissertation). North-West University, Potchefstroom.
- Wassenaar, D. R. (2006). Ethical issues in social science research. In M. Terre Blanche, K. Durrheim & D. Painter (Eds.). *Research in practice: Applied methods for the social sciences* (2nd ed. pp. 60-79). Cape Town: UCT.
- Waterman, A. S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (eudaimonia) and hedonic engagement. *Journal of Personality and Social Psychology*, 64(4), 678-691. doi: 10.1037/10022-3514.4.678
- Wei, C. C. (2009). Psychosocial predictors of motivation to change among adolescents with substance use disorders (Unpublished master's thesis). Ohio University, Athens.
- Willers, M. (2009). Stress, coping behaviour and the psychological well-being of a group of South African teachers: The SABPA study (Unpublished master's dissertation). North-West University, Potchefstroom.

- Williams, S., Wissing, M. P., Rothmann, S., & Temane, Q. M. (2010). Self-efficacy, work, and psychological outcomes in public service context. *Journal of Psychology in Africa, 20*(1), 43-52.
- Wissing, M. P., & Van Eeden, C. (2002). Empirical clarification of the nature of psychological well-being. *South African Journal of Psychology, 31*(1), 32-44.
- Wissing, J. A. B., Wissing, M. P., Du Toit, M. M., & Temane, Q. M., (2008), Psychometric properties of various scales measuring psychological well-being in a South African context: The FORT 1 project. *Journal of Psychology in Africa 18*(4), 511-520.
- Woolfolk Hoy, A. (2000, April). *Changes in teacher efficacy during the early years of teaching*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Yonezawa, S., Jones, M., & Singer, N. R. (2011). Teacher resilience in urban schools: The importance of technical knowledge, professional community, and leadership opportunities. *Urban Education, 46*(5), 913-931. doi: 10.1177/0042085911400341

## Appendix

Table 1

### *Characteristics of Participants*

| Variable                        |                   | Afri Twin |      | Non Afri Twin |      |
|---------------------------------|-------------------|-----------|------|---------------|------|
|                                 |                   | Frequency | %    | Frequency     | %    |
| Gender                          | Male              | 20        | 20.6 | 52            | 17.5 |
|                                 | Female            | 77        | 79.4 | 245           | 82.5 |
| Categories of Age               | 21-34             | 33        | 34   | 78            | 26.3 |
|                                 | 35-49             | 39        | 40.2 | 117           | 39.4 |
|                                 | 50-65             | 20        | 20.6 | 93            | 31.3 |
|                                 | 66 and above      |           |      | 15            | 5.1  |
| Nature of employment            | Permanent         | 65        | 67   | 233           | 78.5 |
|                                 | Temporally        | 7         | 7.2  | 16            | 5.4  |
|                                 | GB appointed      | 23        | 23.7 | 48            | 16.2 |
| Teaching qualifications         | Diploma           | 69        | 71.1 | 196           | 66   |
|                                 | Bachelors (B.Ed.) | 22        | 22.7 | 93            | 31.3 |
| Highest academic qualifications | Diploma           | 32        | 33   | 134           | 45.1 |
|                                 | Bachelors         | 47        | 48.6 | 115           | 38.7 |
|                                 | Honours           | 14        | 14.4 | 36            | 12.1 |
|                                 | Masters           | 2         | 2.1  | 7             | 2.4  |
|                                 | PhD               |           |      | 1             | 0.3  |

Note. GB appointed = Governing body appointed.

Table 2

*Afri Twin and non Afri Twin Teachers' Experiences of their Working Conditions*

| Variable  | Response            | Afri Twin |      | Non Afri Twin |      |
|---|---------------------|-----------|------|---------------|------|
|   |                     | Frequency | %    | Frequency     | %    |
| Experience regarding amount of Work                           | Totally satisfied   | 19        | 19.6 | 73            | 24.6 |
|   | Satisfied           | 54        | 55.7 | 160           | 53.9 |
|   | Unsure              | 14        | 14.4 | 25            | 8.4  |
|   | Unsatisfied         | 7         | 7.2  | 34            | 11.5 |
|   | Totally unsatisfied | 3         | 3.1  | 5             | 1.7  |
| Salary increase in last 3 years                               | Yes                 | 78        | 80.4 | 282           | 95   |
|   | No                  | 17        | 17.5 | 11            | 3.7  |
| Administrative work outside of your teaching responsibilities | A lot               | 73        | 75.3 | 217           | 73.1 |
|   | Not too much        | 15        | 15.5 | 51            | 17.2 |
|   | Varies              | 7         | 7.2  | 18            | 6.1  |
| How do you experience your school                             | Totally satisfied   | 28        | 28.9 | 89            | 30   |
|   | Satisfied           | 61        | 62.9 | 181           | 60.9 |
|   | Unsure              | 4         | 4.1  | 17            | 5.7  |
|   | Unsatisfied         | 4         | 4.1  | 9             | 3    |
| Turnover Intention  | Yes                 | 18        | 18.6 | 46            | 15.4 |
|   | No                  | 77        | 79.4 | 250           | 84.2 |

Table 3

*Descriptive Statistics and Correlations of Measures*

| Variables | Factors | Mean  | SD    |      | 1     | 2     | 3     | 4     | 5     | 6     | 7    |
|-----------|---------|-------|-------|------|-------|-------|-------|-------|-------|-------|------|
| MHC-SF    | EWB     | 11.51 | 2.48  | 0.89 | 1.00  |       |       |       |       |       |      |
|           | SWB     | 15.24 | 4.84  |      | .53** | 1.00  |       |       |       |       |      |
|           | PWB     | 23.46 | 4.20  |      | .64** | .54** | 1.00  |       |       |       |      |
| CSE       | PFC     | 85.30 | 16.01 | 0.94 | .52** | .45** | .60** | 1.00  |       |       |      |
|           | SUE     | 63.74 | 13.17 |      | .51** | .42** | .59** | .84** | 1.00  |       |      |
|           | SFF     | 34.25 | 7.97  |      | .43** | .41** | .58** | .62** | .67** | 1.00  |      |
| CSES      |         | 43.61 | 6.64  | 0.83 | .58** | .39** | .61** | .59** | .58** | .46** | 1.00 |

Note. \*\*Correlation is significant at 1% level, SD = Standard Deviation, = Cronbach alpha coefficient, MHC-SF = Mental Health Continuum-Short Form, EWB = Emotional Well-being, SWB = Social Well-being, PWB = Psychological Well-being, CSE = Coping Self-Efficacy Scale, PFC = Problem focused coping, SUE = Stop unpleasant emotions and thoughts, SFF = Support from friends and family, CSES = Core Self-Evaluations Scale.

Table 4

*Prevalence of Well-being in Afri Twin and non Afri Twin Teachers*

| Variable | Afri Twin |          |      | Non Afri Twin |          |      | t     | p    |
|----------|-----------|----------|------|---------------|----------|------|-------|------|
|          | Low       | Moderate | High | Low           | Moderate | High |       |      |
| EWB      | 2         | 15       | 78   | 8             | 48       | 238  | -1.4  | 0.16 |
| SWB      | 16        | 76       | 2    | 79            | 211      | 1    | -2.7  | 0.07 |
| PWB      | 2         | 19       | 75   | 4             | 75       | 218  | -1.25 | 0.21 |
| PFC      | 8         | 82       | 3    | 29            | 255      | 10   | -1.29 | 0.2  |
| SUE      | 1         | 27       | 66   | 8             | 108      | 176  | -1.64 | 0.1  |
| SFF      | 1         | 42       | 51   | 15            | 115      | 164  | -1.12 | 0.26 |
| CSE      | 2         | 49       | 43   | 17            | 172      | 100  | -1.22 | 0.23 |
| CSES     | 1         | 31       | 57   | 7             | 133      | 151  | -2.78 | 0.06 |

Note. EWB = Emotional Well-being, SWB = Social Well-being, PWB = Psychological Well-being, PFC = Problem focused coping, SUE = Stop unpleasant emotions and thoughts, SFF = Support from friends and family, CSE = Coping Self-Efficacy Scale, CSES = Core Self-Evaluations Scale.

Table 5

*Linear Regression with Social Well-being as a Dependent Variable*

| Model | R <sup>2</sup> | R <sup>2</sup> | F     | p    |
|-------|----------------|----------------|-------|------|
| 1     | 0.05           | 0.05           | 17.94 | 0.01 |
| 2     | 0.14           | 0.09           | 32.03 | 0.01 |
| 3     | 0.15           | 0.01           | 22.56 | 0.01 |

Note. 1 = Experience of amount of work, 2 = Experience of amount of work, how do you experience your school, 3 = Experience of amount of work, how do you experience your school, turnover intention, R<sup>2</sup> = R-Squared (coefficient of determination of a linear regression),  $\Delta R^2$  = Delta R-Squared, F = F-distribution, p = p-value

**SECTION 4: ARTICLE 3****Guidelines for promoting resilience in South African schools through the Afri Twin project**

Will be submitted for possible publication in the South African Journal of Education

#### 4.1 Guidelines for authors: South African Journal of Education

### South African Journal of Education

#### Guidelines for Contributors

##### Preparation of manuscripts

The font size should be Arial 12 and line spacing 1.5. The manuscript, including abstract, figure captions, tables, etc. should be typed on A4-size paper and the pages numbered consecutively. New paragraphs should be indented and quotations consisting of more than 40 words should be indented (*per personal communication with Estelle Botha*).

The title should be brief (max. 15 words), followed by the author(s) name(s), affiliation(s) (Department and University), and an e-mail address for the corresponding author.

An abstract in English (approximately 190 words) must be provided, followed by up to 10 keywords, presented alphabetically.

The text of the article should be divided into unnumbered sections (e.g. Introduction, Method, Results, Discussion, Acknowledgements, References, Appendix, in that order). Secondary headings may be used for further subdivision. Footnotes, if any, will be changed to endnotes.

Authors must observe publishing conventions and should not use terminology that can be construed as sexist or racist.

**Figures** should be clear, black/white originals, on separate pages - not embedded in the text. Grey or coloured shading must NOT be used. **Tables/figures** should be numbered consecutively, with a brief descriptive heading/caption. Information should not be duplicated in text and tables. Each table/figure must be referred to in the text by number - not ~~above~~ or ~~below~~ They will be placed where possible after the first reference.

##### References

Authors should cite at least three earlier articles in SAJE that are relevant to the subject matter of their article.

References are cited in the text by the author(s) name(s) and the year of publication in brackets (Harvard method), separated by a comma, e.g. (Brown, 1997).

If several articles by the same author and from the same year are cited, the letters a, b, c, etc. should be added after the year of publication, e.g. (Brown, 1977a).

Page references in the text should follow a colon after the date, e.g. (Brown, 1997:40-48). In works by three or more authors the surnames of all authors should be given in the first reference to such a work. In subsequent references to this work only the name of the first author is given, followed by the abbreviation *et al.*, e.g. (Ziv *et al.*, 1995).

If reference is made to an anonymous item in a newspaper, the name of the newspaper is given in brackets, e.g. (Daily News, 1999).

For personal communications (oral or written) identify the person and indicate in brackets that it is a personal communication, e.g. (M Smith, pers. comm.).

### **List of references**

Only sources cited in the text must be listed, in alphabetical order, after the article. References should be presented as indicated in the following examples. Special attention should be paid to the required punctuation.

#### **Journal articles:**

Johnson DW & Johnson RT 1999. Gifted students illustrate co-operative learning. *Educational Leadership*, 50:60-61.

#### **Books:**

Van Zyl R (ed.) 1994. *Recent advances in classroom research*. New York: McGraw-Hill.

#### **Chapters in books:**

Dukzec S 1988. Gender issues. In D Hicks & J Brown (eds). *Education for peace*. London: Routledge.

#### **Unpublished theses or dissertations:**

Squelch J 1991. Teacher training for multicultural education in a multicultural society. Med dissertation. Pretoria: University of South Africa.

#### **Anonymous newspaper references:**

*Citizen* 1996. Education for all, 22 March.

**Electronic references:**

*Published under author's name:*

Wilson J 2000. The blame culture. *British Educational Research Journal*, 26. Available at <http://www.govsources/gtp%access>. Accessed 20 April 2005.

*Website references: No author:*

These references are not archival and are therefore subject to change in any way and at any time. If it is essential to present them, they should be included in a numbered endnote and not in the reference list.

**Personal communications:**

Not retrievable and not listed.

**Submission of manuscripts for publication:**

Manuscripts may be submitted electronically by e-mail or via the internet. Manuscripts should be submitted in MS Word format.

**E-mail submissions:**

Manuscript and covering letter must be e-mailed to *Estelle.Botha@up.ac.za*

**Internet submissions:**

Website: <http://www.sajournalofeducation.co.za>

Use the "Register as Author" link to register and submit an article. This will enable you to track the status of your article on the website.

For inquiries contact *Estelle.Botha@up.ac.za*

4.2 Manuscript: Guidelines for promoting resilience in South African schools through the Afri Twin project

**Guidelines for promoting resilience in South African schools through the Afri  
Twin project**

Werner de Klerk\*

School for Psychosocial Behavioural Sciences, North-West University

Alida W. Nienaber

School for Psychosocial Behavioural Sciences, North-West University

Q. Michael Temane

School for Psychosocial Behavioural Sciences, North-West University

12998699@nwu.ac.za

## **Abstract**

The aim of this article is to develop resilience in schools participating in the Afri Twin project. To achieve this aim, teachers', principals', and learners' experiences of the Afri Twin project were investigated. Previous research on the Afri Twin project showed the importance of financial support for promoting an improved learning environment and underlined the cultural tolerance that is established through the Afri Twin project. The context of these schools also need to be understood in terms of two other dimensions, namely the well-being of staff and overall organisational context aspects, as benefits of the Afri Twin project need to extend the success of the Schools in future. Therefore in this study a qualitative dominated approach with a limited convergent quantitative aspect were used to determine how teachers, principals, and learners experienced the Afri Twin; how teachers and principals experience their school; and how teachers and principals thought the Afri Twin could help to promote or improve resilience in schools. The sample consisted of 158 teachers (42 male and 116 female), 14 school principals (10 male and 4 female), and 65 learners (34 boys and 31 girls). The results indicated that leadership, school climate (culture), the people that are involved, and promoting optimism and self-efficacy through support and sharing are essential for the development or improvement of resilience in schools through the Afri Twin project.

**Keywords:** Afri Twin, importance of leadership, organisational well-being, promoting optimism and self-efficacy, psychological well-being, resilience, resources, school climate, well-functioning schools.

The Afri Twin Project was initiated in Great Britain by Ms Jayne Martin (South African native) in 2001. Afri Twin allows for Schools of comparable type and size in Britain and South Africa to be twinned with each other, with a possible "twinning" with a third school in a rural or township area in South Africa (De Klerk & Nienaber, 2011:171). The intention of The Afri Twin project is to create friendships over time between school principals, teachers and learners. As the relationships between the different schools develop, opportunities will follow, allowing the schools to visit one another, to discover and exchange teaching ideas/knowledge and teaching experiences, and to gain first-hand experience of the different conditions in which the individual schools are operating (De Klerk & Nienaber, 2011:171). The schools usually apply for a grant from the British Counsel to make visits possible. The schools also have different Afri Twin projects at their individual schools (for example community projects, beach clean-ups, environmental awareness, art projects, curriculum exchange and more).

### **Problem statement**

The adverse effects of contextual factors are well presented in the literature as far as poverty (Donald, Lazarus, & Lolwana, 2002:205-206; Mbatha 2005:67), environmental factors such as school set-up and domestic circumstances (Olivier, 2006:53-55), poor financial support (Ndimande, 2006:143) and material conditions (Masitsa, 2004:231) are concerned. A majority of school-going children in South Africa live in rural areas, yet rural education lags behind educational development in comparison to other parts of South Africa (Nelson Mandela Trust, 2005:132, in Ngubane, 2005:4). According to Jackson, Rothmann and Van de Vijver (2006:263) the quality of public schools in South Africa varies notably, and Van Wyk (2006:24) reported that "schools in South Africa do not function satisfactorily". According to Vos, Van der Westhuizen, Mentz and Ellis (2012:57) a school can become dysfunctional within an ineffective or 'unhealthy' organisational climate, and therefore literature indicate that for schools to function and compete effectively, they must be resilient.

According to Pretorius and De Villiers (2009:36) well functioning schools tend to have more loyal, satisfied, and trusting educators (teachers); and principals that

are strong, confident, self-assured, sociable, cheerful, and resourceful. Well-functioning schools are also culturally sympathetic, provide services to all without stigma and with equal access, therefore building the learner's mental health (Elias, Zins, Graczyk, & Weissberg, 2003:304), and according to Comer (2004:3) well-functioning schools challenge learners/students with developmentally suitable tasks that help them to gain crucial skills, behaviours, and ways of understanding the world. Such skills are needed to develop into well-functioning adults. According to Hatch (2000:581), schools can only change through the effort, resourcefulness, and strong leadership of key individuals or groups within the school.

### *Organisational well-being*

When viewing schools from an organisational perspective, it becomes clear that educators' (principals and teachers) work is becoming more demanding and perplexing (Jackson & Rothmann, 2006:75) and according to Vos *et al.* (2012:58) the educators' (principals and teachers) quality of work life is influenced by their psychological, physical, and social well-being in the school as an organisation. According to Greenberg (1984, cited by Jackson & Rothmann, 2006:75), the roles of teachers are not easily definable. Teachers have to cope with higher numbers of learners/students per class, increased specialisation, and the growing scope of the syllabi (Jackson & Rothmann, 2006:75). In a South African study of Vos *et al.* (2012:67) it was found that teachers do not experience the organisational climate in their schools positive enough to create a school environment conducive to teaching and learning, and according to Ross, Romer and Horner (2012:118) teachers also experience a lack of emotional support within their working context.

Employees are critical for the success of the organisation in carrying out its mandate. Organisations' productivity will decrease, if the well-being of the employees is not optimal (Visser, 2006:1). If it is promoted, positive spirals are possible in the areas of their functioning. Hakanen, Perhoniemi and Toppinen-Tanner (2008:78) propose that positive strengths in employees' work-life may cluster together resulting in resource gains and upward spirals within the individual as well as in his/her work communities. According to the Conservation of Resources (COR) theory of Steven Hobfell (Hakanen *et al.*, 2008:79), various resources render attention to gaining new

resources and enhancing well-being. According to the COR theory resources are "things that people value and therefore strive to obtain, retain, and protect" (Hakanen *et al.*, 2008:79). Demerouti, Bakker, Nachreiner and Schaufeli (2001, cited by Hakanen *et al.*, 2008:79), has defined job resources as those physical, psychological, social, or organisational factors of work that not only potentially reduce the negative effects of job demands and help to achieve work goals, but may also help to stimulate development, personal growth and learning. When looking at Barbara Fredrickson's broaden-and-build theory of positive emotions, the discovery of creative emotions, ideas and social bonds are promoted by positive emotions which then would build that individual's personal resources that can range from physical and intellectual resources, to social and psychological resources (Fredrickson, 2004:1367).

Walker (1999:13) stated that psychological well-being seems to be multidimensional with regard to facets of self-involvement (e.g. affect, cognitions, and behaviour), and with regard to the domains of life in which these facets manifest themselves (intra- and interpersonal, social and contextual, in work and love). According to Keyes, Wissing, Potgieter, Temane, Kruger and Van Rooy (2008:181), well-being can also be subjective, meaning that individuals appraise themselves about the quality of their lives such as relationships, experiences and achievements. One of the characteristics of a person who is psychologically well (healthy) is his/her capacity for resilience (Antonovsky, 1987, cited by Wei & Tarormina, 2011:57).

### *Resilience and well-being*

According to the Commonwealth Department of Health and Aged Care (2000, cited by Stewart, Sun, Patterson, Lemerle, & Hardie, 2004:26), psychological well-being is rooted in resilience. According to Stewart and McWhirter (2007:490), "the concept of resilience is increasingly being understood as a life event phenomenon that buffers against circumstances that normally overwhelm a person's coping capacity". Resilience is defined as the capacity of individuals, schools, families and communities to cope successfully with everyday challenges, including life changing circumstances, times of cumulative stress and significant adversity or risk (Rutter, 1990, cited by Stewart *et al.*, 2004:26). Characteristics of resilient individuals include

optimism, concentration, organisation, risk-taking, and adaptability (Ruiz-Mock, 2007:48). According to Barrett (2004, cited by Ruiz-Mock, 2007:48), individuals who exhibit resilience have a better understanding for the need of goals, objectives and future achievement.

### *School Leader Resilience*

According to Potter, Reynolds, and Chapman (2002, cited by Ruiz-Mock, 2007:49), resilience is also a characteristic quality necessary in the field of education. The ability to inspire and motivate people to higher performance levels is a primary objective of leadership development (De Klerk, 2007:46). According to Maritz (2006:242) leadership is defined "as the ability to influence a group towards the achievement of goals".

According to the National Commission of Education in England, resilient schools have unified leadership, a visionary school stance, goal-setting, consideration for the improvement of school facilities, a shared view regarding conduct and achievement, and positive networks that provide connections with internal and external stakeholders (Ruiz-Mock, 2007:49). According to Schlichte *et al.* (2005, cited by Ruiz-Mock, 2007:49), school leadership and collaboration with other organisational members (educators and staff) positively influences the building of competence, while at the same time reducing alienation and tension. Educational leaders should, therefore, have the skills necessary to maintain school environments that promote resilience as a school-concept (Ruiz-Mock, 2007:49).

### *Educational Organisation Resilience*

According to Weaver (2010:2), "educational resilience can be thought of as a continuous interaction between an individual and characteristics of his or her environment". According to Wang, Haertel and Wallberg (1997:119), "educational resilience is defined as the heightened likelihood of educational success despite personal vulnerabilities and adversities brought about by environmental conditions and experiences". Individual, collective, and school resilience strategies in

educational organisations are important for success (Ruiz-Mock, 2007:iv). According to Wilson and Ferch (2005, cited by Ruiz-Mock, 2007:51), organisations that nurture empathy also nurture resilience and the sense of change. Patterson *et al.* (2002, cited by Ruiz-Mock, 2007:51), emphasised that resilience supports educational progress, and that measures may be necessary for improvement, if a school is not resilient overall.

In work written by Ruiz-Mock (2007:52), she found that developing employee resilience may positively influence an organisation's ability to adapt to change and this demonstrates the leader's influence on resilience. Based on the research performed by Flash (1988, cited by Ruiz-Mock, 2007:52), five features were proposed that endorse resilience. These features include having an atmosphere that encourages transformation, self sufficiency and a sense of worth, emotional sensibleness, critical and creative thinking skills, and optimism.

In conclusion, according to Maslach, Schaufeli and Leiter (2001, cited by Visser, 2006:1) well-being and productivity can be promoted through a work environment (optimal work settings) that is designed to sustain positive development of energy, vigour, dedication, absorption and effectiveness among employees.

The research questions would be:

- 1) What are the experiences of the schools principals and teachers regarding their school?
- 2) What are the experiences of the schools principals, teachers and learners regarding the effect of the Afri Twin within their school?
- 3) What guidelines can be proposed to promote or improve resilience in schools through the Afri Twin?

### **Aim of study**

The aim of this study is to determine how teachers and principals experience their school; how the teachers, principals and learners experience the Afri Twin; how

teachers and principals think the Afri Twin can help to improve/promote resilience in schools; with the final aim being to give guidelines for promoting resilience in schools through the Afri Twin.

## **Method of investigation**

### Research design

A qualitative dominated approach was implemented with a limited convergent quantitative aspect. At the most basic level, the purpose of this strategy is to use quantitative data and results (smaller case) to assist in the interpretation of qualitative findings (Creswell, 2009:211).

### Participants

The participants consisted of 158 teachers (42 male and 116 female), 14 school principals (10 male and 4 female), and 65 learners (34 boys and 31 girls). The ages of teachers and school principals ranged from 23 - 64 years old and the learners' ages range from 5 - 18 years old. There were 26 participants (24 teachers and 2 school principals) from the UK and the rest of the participants were from South Africa from 49 different schools (13 UK and 36 South African). The schools consisted of 19 High Schools, 25 Primary Schools, 3 Combined Schools (primary combined with secondary, or primary combined with high), and 2 Secondary Schools.

Table 1 shows the participants' qualifications as well as their years of teaching experience and years of teaching at their present school.

### Table 1

The schools' years of involvement in the Afri Twin ranged from those who only just started with the Afri Twin to those who has already been involved for a few years (see table 2).

## Table 2

### Data Collection

The researcher developed a questionnaire that includes open-ended and close-ended questions which the teachers and school principals completed. The questionnaire consists of questions that measure demographic information; experiences regarding their feelings towards their school; their experience of the Afri Twin project; and finally ways in which they think the Afri Twin can help to improve/promote resilience in schools.

The researcher also conducted in-depth interviews with 8 teachers, 2 deputy-principals, 8 school principals, and group discussions with 12 teachers in 4 groups (maximum of 4 teachers per group). The researcher also conducted an in-depth interview with one learner and 5 focus group interviews with 64 learners (average of 12 learners per group) from South Africa. According to Babbie, Mouton, Voster, and Prozesky (2001:289), in interviews, most of the talking is done by the respondent, because he/she is the provider of information. The informal group discussion atmosphere of the focus group interview structure is intended to encourage subjects/participants to speak freely and completely about attitudes, behaviours, and opinions they may have (Berg, 1995:68).

Three open-ended questions were asked to the teachers, deputy-principals and principals. The three questions were, firstly, *Tell me about your school?*, secondly, *How do you experience the Afri Twin in your school?*, and thirdly, *How do you think can the Afri Twin help to improve or promote resilience in schools?* Further probing was also conducted in the interviews.

Two open-ended questions were asked to the learners/students, firstly, *Tell me about your school?*, and secondly, *How do you experience the Afri Twin in your school?*. Further probing was also conducted in the interviews.

## Data Analysis

### *Qualitative data*

The qualitative information obtained from the questionnaires and interviews was read and read again to identify themes. Thematic analysis is a method for identifying, analysing and reporting themes within data (Braun & Clarke, 2006:79). According to Braun and Clarke (2006:82), a "theme helps the researcher to capture something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data". It helps to minimise, organise and describe the data set in rich detail (Braun & Clarke, 2006:79), as the findings will show. The phases that were followed while analysing the data included familiarization with the data, generating of initial codes (by using highlighters to indicate potential patterns), searching for themes (the different codes were sorted into potential themes), reviewing themes, defining and naming themes, and finally producing the report (Braun & Clarke, 2006).

### *Quantitative data*

All the quantitative data (biographical information, experience of school, and effectiveness of Afri Twin) were captured in Microsoft Office Excel (2007) and SPSS (version 21). The researcher then used the SPSS programme to analyse all the quantitative data regarding frequencies.

## Issues of Trustworthiness

Trustworthiness is an indication of methodological soundness and adequacy+ (Holloway & Wheeler, 2002:254). Trustworthiness for this research was accomplished through truth value, applicability and consistency. Truth value was insured by comparing the raw data and findings, peer examination (asking other research experts to look at the qualitative themes) and triangulation (using multiple methods for gathering information). According to De Vos (2002:341-342), triangulation not only allows the researcher to take multiple measures of the same phenomenon, but also to establish confidence in the research results. Applicability

was insured by the selection of the sample (teachers, principals and learners who were involved with the Afri Twin), as well as a dense description of the data. And lastly consistency was insured through stepwise replication and code and re-code of the data.

### Ethical Measures

Ethical approval was obtained from the Ethics Committee of the North-West University (Potchefstroom Campus: NWU-0072-08-S1) as well as from the Western-Cape Education Department (REFERENCE: 20110719-0017). The essential purpose of research ethics is to protect the welfare of research participants (Wassenaar, 2006:61). Ethical considerations were taken into account by respecting the rights, needs, values, and desires of the participants (Creswell, 1994:162). Consent was obtained from the school principals of each school, all the participants (teachers and principals) to participate in the study, as well as consent from parents and the schools on the learners'/students' behalf. The different participants were requested to sign consent forms. Informed and voluntary participation was ensured in this way. The participants were informed that their identity would be protected and that they could withdraw from the research project at any time.

### Results

Five major themes emerged from analysis of the qualitative data. Each theme was differentiated in terms of various categories and subcategories. Appropriate verbatim quotations are provided as validation.

#### *Teachers' experiences of their school*

A majority of the participants (92.4 %) were satisfied with their school (see table 4). Reasons are, because they enjoy their work, they enjoy the supportive working environment, the job opportunities, as well as the ethos of the school. This is very important because according to Oshagbemi (1996, cited by Schulze, 2006:318), job

satisfaction is important for the physical and mental well-being of employees. According to Ward (2011:4), research has found that positive work environments can stem the tide of those leaving the profession of education.

Table 3

There are many factors which have an important influence on teachers' perceptions of quality of school life such as the general culture of the school, the colleagues that you work with, the learners/students, the administration style of the school, and so on, that shapes the environment (climate) of the school (Cenkseven-Önder & Sari, 2009:1225).

### **Theme 1: Reasons for teaching at their school**

#### Enjoy their work

One of the major reasons for teaching at their present school was because they enjoy their work as this teacher comments: *"I enjoy being here because I am able to use my initiative and I am allowed to run with projects that I am quite passionate about"*. One of the other teachers commented:

*"When I first started at this school, I intended to stay for a couple of years and move on. Over this time I have realised how lucky I am to teach at a school that is a happy or fun place to be. Our school motto is 'learn, laugh and play'. We have a good, sensible balance between work and play for both pupils and staff"*.

#### Supportive environment

To many the supportive working environment was essential as a teacher comments:

*"Over the years I've worked with a number of educators that share the same dedication and commitment that I have. This is great encouragement and support in days when you want to throw in the towel. It is just where I want to be, to share in the growth and that special 'unit' that makes us our school!"*

### Opportunities at school

Many teachers also commented on the opportunities presented at their school as a teacher comments: *"I feel it is where I can grow as a person and also in my profession. There are numerous opportunities that allow me to enjoy the career that I have chosen"*. Another teacher comments: *"I love my job and feel very settled and part of the community. Every day is new and challenging and I feel that I have a lot of opportunities for personal and professional growth"*.

### Ethos of school

Ethos is very important as a teacher commented: *"I believe in the school's ethos of balanced education"*. Another teacher commented: *"It is a diverse school with children who are so talented, how children have such an incredible love for school and it is great being part of a school helping them reaching their full potential"*.

## **Theme 2: Experiences and effectiveness of Afri Twin**

A Majority of the principals and teachers (84.9 %) experienced the Afri Twin as being effective.

### Table 4

#### Well organised organisation

Some participants emphasised how well the Afri Twin was organised as an organisation and commented on the manner Jayne Martin run things. One teacher commented: *"Jayne is fantastic in her communication with us. It is prompt and efficient"*. Most teachers commented: *"Very well organised organisation!"*

## Supportive

Teachers also emphasised the support that they get as one teacher commented: *"The Afri Twin project is fantastic for setting up links and supporting us through the teething stages. One teacher pointed out: "Sufficient support from Jayne Martin and our UK partner". Another teacher went on to say: "With Afri Twin support our twin relationship has strengthened well from just linking to reciprocal visit stage".*

## Provide wonderful experience

One of the teachers enthusiastically added: *"Awesome experience! Interesting to learn how my fellow teachers are doing overseas. We share the same vision and share best practices".*

Another teacher had this opinion: *"Creates opportunities for students and staff to experience other cultures and to explore how education works in different places".* Another teacher commented: *"It has potential to create a wonderful experience between nations and cultures. It allows children to see beyond the confines of what they know, or perceive to be true".*

## Promote international link/global citizenship

A teacher commented: *"It gives teachers and learners opportunities to interact and learn at a global level".* A UK teacher commented: *"We established good links. We embedded global issues into our curriculum, we also achieved international status award".* Another teacher pointed out this advantage:

*"If tackled properly Afri Twin can be hugely effective. We have DIRECT, OPEN and FREE connection to other cultures, to another continent!! We are free to exchange ideas and concerns. It is also a structured body with leadership and definite goals".*

Another UK teacher commented:

*"As mentioned earlier, the vital element for me is that we are twinned with two schools here in SA. This provides our children with the diversity of two very different schools, thus dispelling stereotyping. It has also been a bonus to be linked with our high school and the high school in SA".*

One of the teachers responded by saying: *"The project is mind wondering, I have learnt a lot. This is the time for global learning, our young people need to be equipped and given all the opportunities to develop as global citizens".*

### **Theme 3: Benefits for schools**

#### Cultural enrichment

One of the major themes that emerged from data is the cultural enrichment that the different schools experienced. This was also prominent in previous research by De Klerk (2008:21). The learners stated that they enjoyed learning from each other's way of life and that the Afri Twin project was truly a cultural revelation (De Klerk & Nienaber, 2011:180). A learner commented:

*"It is good for culture awareness; we have had the privilege of seeing and experiencing a school (South African) that is less fortunate than us and a school (British School) that is more privileged than us, so we have seen different social groups and cultures in each school".*

A teacher commented:

*"From cultural awareness, the UK teacher and learners were overwhelmed with that there is such a cultural diversity in our school and also South Africa, because they are from a rural area in the UK, so they don't have exposure to a lot of different religions and no exposure to a lot of different cultures, because they are basically only exposed to European children. And that is why their UK teacher wanted to get involved with the Afri Twin, because she feels that their learners have a too narrow minded view of the world, and therefore she didn't just want them to be exposed to other cultures but also to the reality of the world, and she feels that this has been a huge benefit to them".*

Even during the 2010 World Cup Soccer in South Africa there was a wonderful cultural exchange that took place between a South African and England twin as a teacher commented:

*"We made vuvuzela's at our school out of sea plants (called Kelp Vuvuzela). And we had somebody that taught us how to make music with it. So with the Soccer World Cup, we sent vuvuzela's with the England colours to our twin school in the UK, and one of the days that England played, we Skyped with them and had a fan-culture-exchange. So we Skype and BBC News were there at their school and recorded the whole thing when we played for them and taught them how to play and so it was on their news. They also sang for us God Save The Queen. After the Skype, there were England fans here at our school and we gave them vuvuzela's and they showed us things so the fan-culture-exchange day went on for the rest of the day".*

Exchanging educational/curriculum ideas/information and knowledge

A UK teacher commented:

*"It has provided a real global dimension to our curriculum. Our children learnt about our similarities and differences, school life and daily lives at home. During the Soccer World Cup our children supported South Africa as their 2nd team. We have global focus week every year which focuses on South Africa, but our main aim for the future is for our link to be embedded in the curriculum and we have adapted/changed some of our topics to help this process".*

A learner commented:

*"In one of our subjects one of our teachers have asked that we should do some bit of history and actually had to build a replica model of one of their ships (British) that sank at the coast of the Cape and had to do a bit of history search about Britain, and also many other little projects which were brought into our class syllabus as well".*

Educational exchange and learning does not only take place at international level but also between the local South African twins. One teacher said:

*"And with the school in England, with whom we are twinned, we exchange things, we discuss things, for example we learned that they mainly focus on maths and language, so we realised that it is also something that we should focus on. So we had a discussion with our local school (twin) and they help us with language and maths, so 50 of our learners attend extra classes at their school. Learners from that school help learners from our school, and so they communicate in English, our learners speak Xhosa, but by communicating in English with each other, they learn from their mistakes. We as educators should be involved with something like this, because language is a barrier in schools like ours, in black schools, but not with schools (South African) on the other side. So what they do, they use their best matric learners to help our learners with language and maths. One of our teachers also went to our local twin, and taught English there, and one of their teachers came here and taught English. Our teacher was so excited, they asked him a lot [c] of questions and he enjoyed it so much".*

Another teacher reported on her visit to the UK:

*"The visit was absolutely awesome, they organised a programme for us, and because I am a teacher, I visited a lot of [c] classes, and it was an eye opener for me to see how our colleagues in England teach and I took a lot of [c] notes, because our principal is a big supporter of best practice, and despite being an educator for 35 years, I picked up a lot of [c] tips and things that I could use and implement in my own teaching and classroom, so that for me, it was a huge experience. I also met with their management, their year heads, and we swopped notes and things, and saw lot of [c] similarities, and things that we actually do better. So I learnt a lot as a teacher, and a lot as management, but they were wonderful hosts and shown [c] us as much as they could of London, so it was wonderful".*

To go overseas

Many of the participants mentioned that one of the major benefits of the Afri Twin was that learners and teachers were given the opportunity to go overseas. A principal reported:

*"I am really appreciative of the new dimension the Afri Twin has brought to our school. It has given learners the opportunity to travel abroad, something I don't think they would have been able to achieve even after leaving school, I doubt it is something that teachers would have considered doing if it wasn't [c] for Afri Twin".*

A learner comments:

*"For me Afri Twin means a lot, it gives learners an opportunity who can't afford to go overseas to actually experience that, it also improves your knowledge and makes you a happy person. So I think it means a lot to each one of us who got the opportunity to go overseas".*

### Building friendships

Another theme that emerges is the friendships that developed between the twins (both learners and teachers). According to Crosnoe, Cavanagh and Elder (2003:346), "friendships play a crucial role in structuring the human life course". A teacher comments:

*"When we do make contact the impact is enjoyable and fascinating. The kids really get a 'kick' out of communicating with one another. We've Skyped, e-mailed and exchanged cards with one another. We've also made personal friends, teacher to teacher".*

A learner comments:

*"I have learned that the world doesn't stop here. That there are more people out there to meet, for example I now have a sister (person whom I am twinned with) in England, she is random and funny, and when people experience that, they realise that they are not alone in this world and it makes you more open to other people in other countries".*

A teacher's response indicated:

*"This experience also helps with building friendships, the learners that have visited England, and the England learners that have visited us; they all are still in contact with each other. And also between us teachers, we all have been invited*

*back, and I also wanted to see a soccer match in Liverpool and already have been offered a season ticket by one of them".*

#### **Theme 4: The importance of leadership**

In discussions with Jayne Martin, all the principals and some of the teachers, it emerged that leadership is very important for a project like the Afri Twin to grow and move forward in a school. One of the principals pointed out:

*"If you haven't got the leader of the school bought into a project like Afri Twin, it won't work. It is a lot of [c] hard work, it is an expensive project, I doubt whether a project like this will work at a school if the leader isn't involved. They need to know what is going on with the project in their school, and what everybody is doing".*

One of the teacher's remarked:

*"It is very important that the leadership (principal) of your school is involved with the Afri Twin. We have found that at any place, any school where it works is because of leadership; sometimes the leader even self [c] drives the project".*

#### **Theme 5: Participants' suggestions for promoting and improving resilience in schools through the Afri Twin**

Promoting optimism and hope

Research has found that one of the features that endorse resilience is optimism (Ruiz-Mock, 2007:52). According to Peale (1956, cited by Green, Medlin & Whitten, 2004:107), "optimism, generally speaking, is one's tendency to believe in the best possible outcomes in face of uncertainty". A teacher commented: *"Encourage those involved to face their challenges with optimism. Promotes being organised. Teaches them to be able to adapt to any situation and not be afraid to take risks"*. A learner commented:

*"I feel that schools that are less fortunate than us, they can benefit by the Afri Twin. They can also experience things that we have seen and see how other*

*countries are. Schools that are in poverty areas, it will open their eyes and they will see that there is light at the end of the tunnel".*

A principal commented:

*"I do feel a project like this could improve resilience. Anything that excites a pupil or teacher, floods the system with feel good hormones. And if we have disadvantaged schools and we set up links with England, and we start setting up connections and visiting, we start building hope, but what we should be careful of is that we don't see it as a kind of handout. So building resilience, yes, the hope will come in, the excitement, the growth. But we also should ask how will we make a difference, how will what we see there help our learners and vice versa. And we also should want to know how things are done here, in our disadvantaged schools and other schools, so yes, that's it".*

Providing social, emotional and economical support

According to Kim, Sherman and Taylor (2008:518), "social support is one of the most effective means by which people can cope with stressful events". Social support has been defined as one is cared and loved for, esteemed and valued, and part of a network of communication and mutual obligations (Kim *et al.*, 2008:518). According to Burleson (2008:207), emotional support is viewed as a basic provision of close personal relationships. When emotional support is provided, it can yield numerous benefits for the recipient, including improvements in emotional states, coping, and health (Burleson, 2008:208). A teacher commented:

*"A problem shared is a problem halved! Sharing thinking and experiences around challenges and how to face them is supportive and facilitates solution seeking through reflective practice and/or creating supportive networks. Common challenges can be met as part of a team; offering physical, emotional and intellectual support. Pupils and teachers benefit. Often it just means concentrated, dedicated listening and time to think or motivation and encouragement".*

Through sharing, helping one another

A teacher mentioned these advantages:

*"It will be the best thing ever if a project like this can be promoted in the rest of South Africa. With something like the Afri Twin, if you are in a partnership they take ownership of each other, and, for example, the partner sees there is a maths or literacy problem, it is no longer my fight, but our fight, it is no longer my problem, but our problem, it is no longer our problem, but our country's problem, no longer just us, but becomes a global problem, global fight, helping each other. So it is something that is very beneficial, with twinning it brings us together, it makes us one, it unifies us, it pushes us forward in the same direction, I am not benefiting just myself, but I am benefiting my country. So if you could twin a strong school with a weak school, and say we would like to see this in a few years, it will help a lot and be very beneficial".*

Another teacher commented: *"By seeing how schools work nationally and internationally, we realise areas of strength and weaknesses. So we can exchange ideas and learn from each other. Exchange good practice, therefore helping each other to be more resilient".*

Promoting cultural tolerance

A teacher commented: *"By learning about differences, learners could become more tolerant and understanding of others in their own community. It might stimulate debate and interest in life in general".* Another teacher commented: *"By promoting life skill programmes at school and by encouraging cultural activities so that learners can get to know and appreciate diversity".*

## **Guidelines for promoting/improving resilience in schools through the Afri Twin project**

After evaluating some literature and the results of the participants, four major guidelines for possibly promoting and improving resilience in schools through the Afri Twin were identified. The guidelines refer to the following:

### Leadership

According to Bell's 'Five Principles of Organisational Resilience', leadership plays an important role in organisational resilience (Bell, 2002:1). Resilience begins with the leader allocating resources, setting the priorities and making commitments to establish organisational resilience (Bell, 2002:2). According to Price (2012:40), school principals are important figures in schools whose actions directly shape their school climate. Research also shows that school principals are especially influential over the organisational climate (well-being) of the school where they are able to promote trusting, cooperative, and open environments (school climate) where impel (spur on) from staff are welcome (Price, 2012:40).

Leadership does not necessarily mean the school principal only. Studies have also shown the importance of distributing leadership in schooling decisions. Distributing power (leadership) can increase and improve innovative teaching (Price, 2012:46). According to Pounder (1999, cited by Wahlstrom & Louis, 2008:463), allowing the sharing of leadership may have a greater impact by reducing teacher isolation, therefore increasing commitment to "the common good". Leadership involves an array of individuals with various tools and structures, therefore, school principals do not single-handedly lead schools to greatness (Spillane, 2005:143). Research reveals that a school atmosphere of trust, shared vision, and openness creates positive school climate conditions (Price, 2012:39).

Effective educational leaders, according to Leithwood and Riehl (2003:3), "help their schools to develop visions that embody the best thinking about teaching and learning". These leaders give direction, develop people, and develop the organisation/school (Leithwood & Riehl, 2003:3). The importance of leadership regarding resilience through the Afri Twin can be defined as follows:

- "Leaders do not merely impose goals on others, but work with others to create a shared sense of purpose and direction" (Leithwood & Riehl, 2003:2). If a school decides to get involved with a project like the Afri Twin, is it important that the school principal and leaders of the school with the teaching staff have a shared purpose and direction regarding Afri Twin in their school. They need to establish an outline of goals that they want to achieve and contribute with Afri Twin in their school and with their twinned schools.
- "Leaders work through and with others" (Leithwood & Riehl, 2003:2). It is important to establish conditions within the school that enable others (teachers and staff) to be effective (Leithwood & Riehl, 2003:2). The principal needs to identify people in the school that will be willing to be part of a project like Afri Twin, and after doing so, he/she needs to create a supportive environment in the school that allows them to give the Afri Twin the scope to work and be effective, giving them freedom to develop their own ideas and projects within the school and with their twinned schools, improving and developing education, cultural enrichment and so on.
- Because of the nature of the Afri Twin, with the first phase being to establish and build relations via internet for example, it is crucial that Afri Twin leaders establish good communication relationships with their twinned schools (UK and SA). In an article by Crawford (2002:431), developing online networks (especially among school leaders), seems to be an excellent strategy for relieving isolation, providing space for educational leaders not only to reflect, but also to share the effective side of leadership.

#### School climate (culture)

According to Bell (2002:2), culture (climate) is also important for organisational resilience. A resilient culture (climate) is built on purpose, trust, responsibility and organisational empowerment (Bell, 2002:2). According to Kelley (2005:2), a positive school climate can improve student/learner achievement, enhance staff performance, and promote higher morale. Hoy and Miskel (2005:185), define school climate as "the set of internal characteristics that distinguish one school from another and influence the behaviours of each school's members". Kelley (2005:2) states that

the school principal plays an important role in establishing the school climate through harbouring an understanding of school vision and implementation of the school mission. Teachers' organisational commitment is also a consequential indicator of a strong school culture (Cruise & Louis, 2009, cited by Hulpia, Devos & Van Keer, 2011:733). Bell (2002:2) states that "employees who self-organise into communities of practice for learning and monitoring, and who are empowered to participate, lead an organisation". The importance of school climate regarding resilience through the Afri Twin can be defined as follows:

- There must be a positive and supportive environment in a school for a project like the Afri Twin to be successful in helping to promote/improve resilience. With this trusting school environment (climate), collaboration and cooperation around unified school goals, programme coherence and shared vision can thrust forward school plans and improvement ideas, even amongst disadvantaging barriers (Price, 2012:42). The principals, teachers and supporting staff must be supportive and positive about a project like the Afri Twin for it to be established.
- A climate must be created and established that would promote and improve optimism. Schools that are involved in Afri Twin (especially less fortunate schools), can experience things and opportunities through visits etcetera. that can help them to stay positive, become more positive or make changes in their school to create a positive and supportive environment (leading to optimism). Research by Ruiz-Mock, (2007:52) has shown that optimism and positive school climate (environments) endorse resilience.

## People

Bell (2002:3) states that the people in the organisation are also important for resilience. People who are properly equipped, motivated, selected and led will overcome almost any difficulty, obstacle or problem (Bell, 2002:3). Research has found that the commitment of staff promote effective schools (Price, 2012:42; Hulpia *et al.*, 2011:729), and that teachers' organisational commitment is affected by school leadership (Hulpia *et al.*, 2011:729). School professionals' attitudes are influenced by the interpersonal relationships between principals and their teachers that define the

wider school climate (Price, 2012:39). The importance of people regarding resilience through the Afri Twin can be defined as below:

- It is important for Afri Twin that the people in the school who decide to be part of the Afri Twin are truly committed to the purpose and possibilities of the Afri Twin and that it is not merely for self-interest, but rather for the greater purpose of the possible positive effect on their school, their twinned schools, the learners, teachers, staff, principals and community. Hulpia *et al.* (2011:732) state that organisational commitment include three characteristics:
  1. "Identification, or a belief in and acceptance of organisational goals and values".
  2. "Involvement or a willingness to exert effort on behalf of the organisation".
  3. "Loyalty or a strong desire to maintain membership to the organisation".

It would, therefore, be important that the principals and teachers that are involved with the Afri Twin should want to be part of the Afri Twin, should believe in the goals and values of Afri Twin and their school, and would be willing to exert effort to make the Afri Twin possible and successful in their school.

### Promoting optimism and self-efficacy through support and sharing

To develop professional resilience is a process built on the interplay between individuals and their supportive contexts (Yonezawa, Jones & Singer, 2011:1). One example of job and organisational resources is social support from co-workers (Salanova, Bakker, & Llorens, 2006:3). Results in this study show that the Afri Twin provides opportunities for teachers and principals to support each other on a social and emotional level, and also to help each other by sharing teaching ideas, curriculum ideas, teaching experiences, and knowledge and by providing academic support. Such support and sharing will also possibly help them to feel more self-effective (self-efficacy), leading to experiences of positive emotions resulting in optimism.

Research shows that high levels of efficacy beliefs have a positive impact on employee well-being and work engagement (Salanova *et al.*, 2006:4). According to Salanova *et al.* (2006:4), personal resources (efficacy) are aspects of the self that are generally linked to resilience. Bandura (1997, 2001, cited by Salanova *et al.*, 2006:5) states that efficacy beliefs contribute to motivation in the following ways: Efficacy beliefs influence (a) the challenges that people pursue, (b) the effort they invest, and (c) their attendance to the facing of difficulties (obstacles).

Research with the broaden-and-build theory showed that temporary experiences of positive emotions can build enduring psychological resources and trigger upward spirals toward emotional well-being (Salanova *et al.*, 2006:6; Fredrickson, 2004:1367). Therefore, "positive emotions not only make people feel good at the present moment, but also feel good in the future" (Salanova *et al.*, 2006: 6). According to Salanova *et al.* (2006:18), it is important for teachers to have adequate resources available in their work. Regarding the Afri Twin, these resources could be the support that the Afri Twin teachers give one another, the curriculum exchanges that take place, the academic support that takes place in some schools, and then finally through sharing each other's general experiences and helping each other to stay positive. These are factors that would lead to optimism.

## **Conclusion**

The aim of this article was to develop guidelines for promoting resilience in South African schools through the Afri Twin project, but it was first necessary to determine how the teachers and principals experience their school, how the teachers, principals and learners experience Afri Twin, and how the teachers and principals think the Afri Twin can help to improve or promote resilience in schools.

Literature shows that resilience is defined as the capacity of individuals, schools and communities to cope with everyday challenges/difficulties, and that individuals who exhibit resilience have a better understanding of future accomplishments and the need for goals and objectives (Stewart *et al.*, 2004:26; Ruiz-Mock, 2007:48). Characteristics of resilient individuals include optimism, organisational skills, risk-taking and adaptability (Ruiz-Mock, 2007:48). The results in

this study have shown that the Afri Twin does help teachers and principals to be more optimistic, and that one needs to be adaptable, to have a certain set of goals and objectives in place and needs to be organised to make a success of the Afri Twin in one's school.

School climate plays a vital role in the success of Afri Twin. The results show that a supportive environment, a school with an excellent ethos and a school that provides opportunities plays an important role with 92.4 % of the participants being satisfied with their school. It was also found that leadership is very important and that the people (teachers and principals) that are involved with the Afri Twin play a key role in the development and success of the Afri Twin within the school.

The cultural enrichment, friendship development and social, emotional and academic support that take place through the Afri Twin exchange are key factors and vital contributions of the Afri Twin project. With the opportunities provided through the Afri Twin and all the support and global exchange that take place it helps the teachers, learners and principals that are involved to be more positive and optimistic (with 84.9 % of the teachers and principals experiencing the Afri Twin as successful). The main research question "What guidelines can be proposed to promote or improve resilience in schools through the Afri Twin?" can be answered in the following way: That there must be good leadership within the school, school climate is vital, the people involved need to be committed to the purpose and possibilities of the Afri Twin, and support and sharing are suggested as key factors in developing and improving resilience in schools through the Afri Twin project.

Van der Westhuizen (2002:152) stated that a school with a healthy organisational structure that is not subject to undue pressure from the community has a principal who gives motivational/functional guidance, a teaching staff who are dedicated and learners/students who are motivated. Van der Westhuizen (2002:152) also emphasised that a school with a healthy organisational structure has goals that are attainable, as well as resources that are sufficient. In conclusion all these aspects play a key role in the success of Afri Twin within a school.

It is suggested that the guidelines need to be taken into consideration for the future development of Afri Twin within schools.

## Reference

- Babbie E, Mouton J, Voster P, & Prozesky B 2001. *The practice of business and social research*. Oxford: Oxford University Press.
- Bell MA 2002. The five principals of organizational resilience. *Gartner*. ID Number: AV-15-0508.
- Berg BL 1995. *Qualitative research methods for the social sciences*. 2nd ed. Needham Heights, MA: Allyn & Bacon.
- Braun V & Clarke V 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3:77-101.
- Burleson BR 2008. What counts as effective emotional support: explorations of individual and situational difference. Available at <http://www.corwin.com>. Accessed 8 February 2012.
- Cenkseven-Önder F & Sari M 2009. Subjective well-being, positive and negative affect, life satisfaction, quality of school life, teachers' burnout. *Educational Sciences: Theory & Practice*, 9(3):1223-1236.
- Comer JP 2004. The school is preventive and promotive. Available at [http://www.sagepub.com/upm-data/6979\\_comer\\_ch\\_1.pdf](http://www.sagepub.com/upm-data/6979_comer_ch_1.pdf). Accessed 2 May 2012.
- Crawford M 2002. Enhancing school leadership: evaluating the use of virtual learning communities. *Educational Management & Administration*, 30(4):431-445.
- Creswell JW 1994. *Research design: qualitative and quantitative approaches*. Thousand Oaks, California: SAGE Publications, Inc.
- Creswell JW 2009. *Research design: qualitative, quantitative, and mixed methods approaches*. 3rd ed. SAGE Publications, Inc.
- Crosnoe R, Cavanagh S & Elder GH 2003. Adolescent friendships as academic resources: the intersection of friendship, race and school disadvantage. *Sociological Perspectives*, 46(3):331-352.

- De Klerk M 2007. Leading the traumatised organisation towards wellness. *Management Today*, (April):46-49.
- De Klerk W 2008. A discussion of a unique collaboration model between schools. MA dissertation. Potchefstroom: North-West University.
- De Klerk W & Nienaber AW 2011. A discussion of a unique collaboration model between schools. *Psychology Research*, 1(3):170-181.
- De Vos AS 2002. *Research at grass roots for the social sciences and human service professions*. 2nd ed. Pretoria: Van Schaik.
- Donald D, Lazarus S & Lolwana P 2002. *Educational psychology in social context*. 2nd ed. Cape Town: Oxford University Press.
- Elias MJ, Zins JE, Graczyk PA & Weissberg RP 2003. Implementation, sustainability, and scaling up of social emotional and academic innovations in public schools. *School Psychology Review*, 32(2):303-319.
- Fredrickson BL 2004. The broaden-and-build theory of positive emotions. *Phil. Trans. R. Soc. Lond. B*, 359:1367-1377. doi:10.1098/rstb.2004.1512.
- Green KW, Medlin B & Whitten D 2004. Developing optimism to improve performance: an approach for the manufacturing sector. *Industrial Management & Data Systems*, 104(2):106-114.
- Hakanen JJ, Perhoniemi R & Toppinen-Tanner S 2008. Positive gain spirals at work: From job resources to work engagement, personal initiative and work-unit innovativeness. *Journal of Vocational Behaviour*, 73:78-91.
- Hatch T 2000. What does it take to break the mold? Rhetoric and reality in new American schools. *Teacher College Record*, 102:561-589.
- Holloway I & Wheeler S 2002. *Qualitative research in nursing*. Oxford: Blackwell.
- Hoy WK & Miskel C 2005. *Education administration: theory, research, and practice*. 7th ed. New York: McGraw-Hill.
- Hulpia H, Devos G & Van Keer H 2011. The relationship between school leadership from a distributed perspective and teachers' organisational

commitment: examining the source of the leadership function. *Educational Administration Quarterly*, 47(5):728-771. .

Jackson LTB & Rothmann S 2006. Occupational stress, organisational commitment, and ill health of educators in the North West Province. *South African Journal of Education*, 26(1):75-95.

Jackson LTB, Rothmann S & Van de Vijver FJR 2006. A model of work-related well-being for educators in South Africa. *Stress and Health*, 22:263-274.

Kelley RC 2005. Relationships between measures of leadership and school climate. Available at [http://www.findarticles.com/p/articles/mi\\_qa3673/is\\_200510/ai\\_n15641817/print](http://www.findarticles.com/p/articles/mi_qa3673/is_200510/ai_n15641817/print). Accessed 5 March 2012.

Keyes CLM, Wissing MP, Potgieter JP, Temane QM, Kruger A & Van Rooy S 2008. Evaluation of the Mental Health Continuum-Short Form (MHC-SF) in Setswana-Speaking South Africans. *Clinical Psychology and Psychotherapy*, 15:181-192.

Kim HS, Sherman, DK & Taylor SE 2008. Culture and social support. *American Psychologist*, 63(6):518-526.

Leithwood KA & Riehl C 2003. What we know about successful school leadership. *Philadelphia, PA: Laboratory for Student Success, Temple University*. Available at <http://www.cepa.gse.rutgers.edu/whatweknow.pdf>. Accessed 5 March 2012.

Maritz D 2006. Leadership and Trust. In SP Robbins, A Odendaal & G Roodt (eds). *Organisational behaviour: global and Southern African perspectives*. 2nd ed. Cape Town: Pearson Education.

Masitsa MG 2004. Four critical causes of underachievement in township secondary schools. *Acta Academica*, 36(1):213. 245.

Mbatha PN 2005. The implementation of an institutional support team in a rural primary school in KwaZulu-Natal. MEd dissertation. Johannesburg: University of Johannesburg.

- Ndimande B 2006. Parental choice: the liberty principle in education finance. *Perspectives in Education*, 24(2):143-156.
- Ngubane WS 2005. An investigation into implementation of participative management in a rural school in the Pietermaritzburg district. MEd dissertation. Grahamstown: Rhodes University.
- Olivier MAJ 2006. The impact of deprived environments on learner motivation. *Africa Education Review*, 3(1+2):48-66.
- Pretorius S & De Villiers E 2009. Educators' perceptions of school climate and health in selected primary schools. *South African Journal of Education*, 29:33-52.
- Price HE 2012. Principal-teacher Interactions: how affective relationships shape principal and teacher attitudes. *Educational Administration Quarterly*, 48(1):39-85.
- Ross SW, Romer N & Horner RH 2012. Teacher well-being and the Implementation of school-wide positive behavior interventions and supports. *Journal of Positive Interventions*, 14(2):118-128.
- Ruiz-Mock M 2007. Female school leadership, educator resilience strategies, and student outcomes in an English primary school. PhD dissertation. Arizona: University of Phoenix. Available at <http://www.gradworks.umi.com>. Accessed 16 March 2010.
- Salanova M, Bakker AB & Llorens S 2006. Flow at work: evidence for an upward spiral of personal and organisational resources. *Journal of Happiness Studies*, 7:1-22. doi: 10.1007/s10902-005-8854-8
- Schulze S 2006. Factors influencing the job satisfaction of academics in higher education. *South African Journal of Higher Education*, 20(2):318-335.
- Spillane JP 2005. Distributed leadership. *The Educational Forum*, 69:143-150.
- Stewart D & McWhirter J 2007. Thinking positive: the importance of resilience and listening to children and young people. *Health Education*, 107(6):489-493.

- Stewart D, Sun J, Patterson C, Lemerle K & Hardie M 2004. Promoting and building resilience in primary school communities: evidence from a comprehensive healthpromoting school approach. *International Journal of Mental Health Promotion*, 6(3):26-33.
- Van der Westhuizen PC 2002. *Schools as organisations*. Pretoria: Van Schaik Publishers.
- Van Wyk E 2006. 80% van skole doen nie hulle werk nie (80% of schools do not do their work). *Rapport*, 15 October.
- Visser CA 2006. Emotion work and well-being of secondary school educators. MCom dissertation. Potchefstroom: North-West University.
- Vos D, Van der Westhuizen PC, Mentz PJ & Ellis SM 2012. Education and the quality of their work environment: an analysis of the organisational climate in primary schools. *South African Journal of Education*, 32:56-68.
- Wahlstrom KL & Louis KS 2008. How teachers experience principal leadership: the roles of professional community, trust, efficacy, and shared responsibility. *Educational Administration Quarterly*, 44(4):458-495.
- Walker HJ 1999. Clarifying the affective component of psychological well-being. MA dissertation. Potchefstroom: North-West University.
- Wang MG, Haertel GD & Wallberg HJ 1997. Fostering educational resilience in inner-city schools. *Children and Youth*, 7:119-140.
- Ward G 2011. Leaving the profession: one teacher's view of her department work environment and its impact on her decision to leave. *Science Education Research Symposium: Edited Proceedings*, 3-11.
- Wassenaar D R 2006. Ethical issues in social science research. In M Terre Blanche, K Durrheim & D Painter (eds). *Research in practice: applied methods for the social sciences*. 2nd ed. Cape Town: UCT Press.
- Weaver D 2010. The relationship between cultural/ethnic identity and individual protective factors of academic resilience. Available at

[http://www.counselingoutfitters.com/vistas/vistas10/Article\\_67.pdf](http://www.counselingoutfitters.com/vistas/vistas10/Article_67.pdf). Accessed 31 January 2012.

Wei W & Tarormina RJ 2011. Factors influencing work efficacy in China. *Advances in applied sociology*, 1(1):56-57.

Yonezawa S, Jones M & Singer NR 2011. Teacher resilience in urban schools: the importance of technical knowledge, professional community, and leadership opportunities. *Urban Education*, 46(5):913-931. doi: 10.1177/0042085911400341

## Appendix

Table 1

Participants' qualifications, years of teaching experience, and years of teaching at present school

| Variable                         | Qualification            | Frequency | %    |
|----------------------------------|--------------------------|-----------|------|
| Highest academic qualification   | Diploma                  | 44        | 25.6 |
|                                  | Bachelors degree         | 79        | 45.9 |
|                                  | Honours degree           | 35        | 20.4 |
|                                  | Masters degree           | 11        | 6.4  |
|                                  | Total                    | 169       | 98.3 |
| Teaching qualification           | Diploma                  | 102       | 59.3 |
|                                  | Bachelors (B.Ed.) degree | 63        | 36.6 |
|                                  | Total                    | 165       | 95.9 |
| Variable                         | Years                    | Frequency | %    |
| Years of teaching experience     | 1-10                     | 68        | 39.5 |
|                                  | 11-20                    | 46        | 26.7 |
|                                  | 21-30                    | 41        | 23.8 |
|                                  | 31 and above             | 14        | 8.1  |
|                                  | Total                    | 169       | 98.3 |
| Years of teaching at your school | 1-10                     | 124       | 72.1 |
|                                  | 11-20                    | 36        | 20.9 |
|                                  | 21-30                    | 6         | 3.5  |
|                                  | 31 and above             | 4         | 2.3  |
|                                  | Total                    | 170       | 98.8 |

Note: Not all the participants completed the questions, therefore the variance in frequencies.

Table 2

Schools' years of involvement with Afri Twin

| Variable                            | Years              | Frequency | %    |
|-------------------------------------|--------------------|-----------|------|
| Years of involvement with Afri Twin | 1 year and shorter | 18        | 36.7 |
|                                     | 2                  | 14        | 28.6 |
|                                     | 3                  | 10        | 20.4 |
|                                     | 4                  | 3         | 6.1  |
|                                     | 5                  | 2         | 4.1  |
|                                     | 7                  | 2         | 4.1  |
|                                     | Total              |           | 49   |

Table 3

Teachers' and principals' experience of their school

| Variable             |                   | Frequency | %    |
|----------------------|-------------------|-----------|------|
| Experience of school | Totally satisfied | 52        | 30.2 |
|                      | Satisfied         | 107       | 62.2 |
|                      | Unsure            | 8         | 4.7  |
|                      | Unsatisfied       | 5         | 2.9  |
|                      | Total             | 172       | 100  |

Table 4

Teachers' and principals' experience of Afri Twin effectiveness

| Variable                   |                | Frequency | %    |
|----------------------------|----------------|-----------|------|
| Effectiveness of Afri Twin | Very effective | 49        | 28.5 |
|                            | Effective      | 97        | 56.4 |
|                            | No effect      | 17        | 9.9  |
|                            | Total          | 163       | 94.8 |

Note: Not all the participants completed, therefore variance in frequencies. Please note that most of the participants that said 'no effect' had only just started with the Afri Twin in their schools.

## SECTION 5

### Conclusion

The purpose of this research study (thesis) was as follows:

1. To determine the psychometric properties of the Adapted and Revised Organisational Climate Description Questionnaire (AAR OCDQ), which is a measure of school climate.
2. To determine the prevalence of well-being (mental health, core self-evaluations and coping self-efficacy characteristics) of teachers at Afri Twin and non Afri Twin schools.
3. To determine how Afri Twin teachers and principals experience their school; how the teachers, principals and learners experience the Afri Twin; how teachers and principals think the Afri Twin can help to improve/promote resilience in schools; with the final purpose was to provide guidelines for promoting resilience in schools through the Afri Twin.

The results in article 1 show that the AAR OCDQ was reliable and also indicated that the scale was valid in a sample of South African teachers. The AAR OCDQ demonstrated good construct validity based on its correlations with other measures of optimal functioning such as the Mental Health Continuum - Short Form, Coping Self-Efficacy Scale and Core Self-Evaluations Scale. This type of validity is needed for standardisation and has to do with how the construct covered by the measuring instrument is measured by different groups of related items (Creswell, 2009; Pietersen & Maree, 2009). It was concluded that further evaluation can improve the validity of the scale with various groups in South Africa, as well as that future studies can further analyse the scale on item level.

The second article determined the prevalence of well-being in teachers at Afri Twin and non Afri Twin schools. The results indicated a moderate to high level of well-being, with an almost significant difference in social well-being and core self-evaluations between Afri Twin and non Afri Twin teachers. Three stepwise linear regression models were used as independent variables, and all three models were significant based on the t-test analysis indicating a difference in the comparison of the Afri Twin and non Afri Twin schools. According to Bandura (1993), the shared beliefs of teachers influence the social environment (climate) of the school. Therefore the 'twinning' of schools with each other as with the Afri Twin, could influence the belief system of the teachers and school in general in a positive manner, resulting in the influence of social well-being amongst Afri Twin teachers positively.

The third article is a proposal for the development of an intervention for resilience in schools through the Afri Twin project. This article was based on a qualitative analysis of interviews, focus groups and qualitative questionnaires based on the experiences of principals, teachers and learners/students of the Afri Twin project. The results indicated that a majority of the teachers and principals (92.4 %) were satisfied with their school. Reasons provided included that they enjoy their work because of the supportive environment, because of the opportunities at school, and because of the ethos of the school.

The results also indicated that a majority of the principals and teachers (84.9 %) experienced the Afri Twin as being effective in their different schools. The teachers and principals felt that the Afri Twin was organised, supportive, provided a wonderful experience for both teachers and learners, and promoted international links with their overseas twins. The benefits for the schools involved with the Afri Twin, included cultural enrichment, exchanging educational/curriculum ideas/information and knowledge with each another, the opportunity for learners, teachers and principals to go overseas as well as the building of friendships. The results also indicated the importance of leadership regarding the Afri Twin

within a school. With this valuable information the researcher developed certain suggestions for promoting or improving resilience in schools through the Afri Twin. These suggestions include the following:

1. Leadership
2. School climate (culture)
3. People
4. Promoting optimism and self-efficacy through support and sharing

The results on the one hand and literature on the other indicate that leadership plays an important role in organisational resilience (Bell, 2002). However, leadership does not necessarily mean the school principal only. The distribution of leadership in schooling decisions is important (Price, 2012). Therefore, the leaders (principals and teachers) that are involved with the Afri Twin within the school need to work with each other (Leithwood & Riechl, 2003) and establish good communication (Crawford, 2002) to ensure the success and effectiveness of the Afri Twin.

Secondly the school climate or culture is important to organisational resilience (Bell, 2002). A school with a positive school climate can enhance staff performance, promote higher morale, and improve learner achievement (Kelley, 2005). Therefore, the principal plays an important role in establishing a positive school climate among staff and learners (Kelley, 2005). With regard to the Afri Twin a school climate that is positive and supportive must be established for a project like this to work. A climate must also be established within the school that would help to improve optimism.

Thirdly the people that are involved with the Afri Twin within the school are important. People who are properly selected, motivated, led and equipped will be inclined to overcome almost any difficulty or obstacle (Bell, 2002). According to Price (2012), staff commitment fosters effective schools. Therefore it is important that the people who decide to

be part of the Afri Twin within the school would be truly committed to the purpose and possibilities of the Afri Twin.

Lastly, through the sharing and support that takes place with the Afri Twin, optimism and self-efficacy develop. Literature indicates that social support or the supportive context within an organisation leads to resilience (Yonezawa, Jones, & Singer, 2011). Therefore results in this research study indicate that the Afri Twin provides opportunities for teachers and principals to support each other on a social and emotional level, and they also support each other by sharing teaching ideas, curriculum ideas, teaching experiences, knowledge and academic support. This could also help with the efficacy beliefs of the teachers.

The main conclusion of the thesis is that results in article 3 regarding the support and sharing amongst Afri Twin teachers and principals support the results in article 2 regarding the social well-being of Afri Twin teachers that differs in comparison to the non Afri Twin teachers. This research indicates that the Afri Twin project has a positive influence on the schools and educators that are involved with the Afri Twin. The schools and teachers experience various benefits from being involved with a project like the Afri Twin which at the end of the day could influence their psychological well-being (resilience and social well-being) positively.

### **Limitations and recommendations**

It is recommended that further analysis beyond the validation of the AAR OCDQ should be done. Further studies could test that although the AAR OCDQ seems to be unidimensional, some aspects of the 'school climate' may be more important than others, and that items could be grouped into different subgroups regarding 'school climate'. Future studies could also determine whether these aspects are differentially important for males and females. Therefore further research should be done on the validation and standardisation of the AAR OCDQ.

In article 2 the study was limited because it was a survey. Surveys usually focus on experiences of participants at a specific point in time. Therefore it is recommended that future studies implement a longitudinal study regarding well-being in the school context. Future studies could also further explore the nature of social well-being in Afri Twin schools compared to non Afri Twin schools, especially the experience of the school environment (climate) and its impact on teacher social well-being.

Finally in article 3 it was recommended that the guidelines should be taken into consideration when implementing the Afri Twin projects in schools.

## References

- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*, 117-148.
- Bell, M. A. (2002). The five principals of organizational resilience. *Gartner*. ID Number: AV-15-0508.
- Crawford, M. (2002). Enhancing school leadership: Evaluating the use of virtual learning communities. *Educational Management & Administration, 30*(4), 431-445.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. (3rd ed.). Thousand Oaks, California: SAGE Publications Ltd.
- Kelley, R. C. (2005). *Relationships between measures of leadership and school climate*. Retrieved from [http://www.findarticles.com/p/articles/mi\\_qa3673/is\\_200510/ai\\_n15641817/print](http://www.findarticles.com/p/articles/mi_qa3673/is_200510/ai_n15641817/print).
- Leithwood, K. A., & Riehl, C. (2003). *What we know about successful school leadership*. Retrieved from <http://www.cepa.gse.rutgers.edu/whatweknow.pdf>.
- Pietersen, J., & Maree, K. (2009). Standardisation of a questionnaire. In K. Maree (Ed.), *First steps in research* (3rd ed., pp. 215-222). Pretoria: Van Schaik Publishers.
- Price, H. E. (2012). Principal-teacher interactions: How affective relationships shape principal and teacher attitudes. *Educational Administration Quarterly, 48*(1), 39-85.
- Yonezawa, S., Jones, M., & Singer, N. R. (2011). Teacher resilience in urban schools: The importance of technical knowledge, professional community, and leadership opportunities. *Urban Education 46*(5), 913-931. doi: 10.1177/0042085911400341

## COMPLETE REFERENCE LIST

### Reference

- Altermatt, B. (2006). *Questionnaire & survey designs*. Retrieved from [http://www.vault.hanover.edu/altermattw/methods/assets/.../Questionnaire\\_Design.pdf](http://www.vault.hanover.edu/altermattw/methods/assets/.../Questionnaire_Design.pdf)
- Babbie, E., Mouton, J., Voster, P., & Prozesky, B. (2001). *The practice of business and social research*. Oxford: Oxford University Press.
- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology, 22*(3), 309-328.
- Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Organisational Health Psychology, 10*, 170-180
- Bakker, A. B., Hakenen, J. J., Demerouti, E., & Xathopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology, 99*(2), 274-284. doi: 10.1037/0022-0663.99.2.274
- Bakker, A. B., & Schaufeli, W. B. (2008). Positive organizational behavior: Engaged employees in flourishing organizations. *Journal of Organizational Behavior, 29*, 147-154. doi: 10.1002/job.515
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*, 117-148.
- Bansilal, S., & Rosenberg, T. (2011). South African rural teachers' reflections on their problems of practice: Taking modest steps in professional development. *Mathematics Education Research Journal, 23*, 107-127. doi: 10.1007/s13394-011-0007-2

- Beasley, M., Thompson, T., & Davidson, J. (2003). Resilience in response to life stress: The effect of coping style and cognitive hardiness. *Personality and Individual Differences, 34*, 77-95.
- Bell, M. A. (2002). The five principals of organizational resilience. *Gartner*. ID Number: AV-15-0508.
- Berg, B. L. (1995). *Qualitative research methods for the social sciences* (2nd ed.). Needham Heights, MA: Allyn & Bacon.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*:77-101.
- Browne, M. W., & Cudeck, R. (1992). Alternative ways for assessing model fit. *Sociological Methods and Research, 21*, 230-258.
- Burleson, B. R. (2008). *What counts as effective emotional support: Explorations of individual and situational difference*. Retrieved from <http://www.corwin.com>.
- Cenkseven-Önder, F., & Sari, M. (2009). Subjective Well-Being, Positive and Negative Affect, Life Satisfaction, Quality of School Life, Teachers' Burnout. *Educational Sciences: Theory & Practice, 9*(3), 1223-1236.
- Charney, D. S. (2004). Psychobiological mechanisms of resilience and vulnerability implications for successful adaptation to extreme stress. *American Journal of Psychiatry, 161*, 195-216.
- Chesney, M., Folkman, S., & Chambers, D. (1996). Coping effectiveness training for men living with HIV: Preliminary findings. *International Journal of STD and AIDS, 7*(2), 75-82.

- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7(3), 309-319.
- Comer, J. P. (2004). *The school is preventive and promotive*. Retrieved from [http://www.sagepub.com/upm-data/6979\\_comer\\_ch\\_1.pdf](http://www.sagepub.com/upm-data/6979_comer_ch_1.pdf).
- Crawford, M. (2002). Enhancing school leadership: Evaluating the use of virtual learning communities. *Educational Management & Administration*, 30(4), 431-445.
- Creswell, J. W. (1994). *Research design: Qualitative and quantitative approaches*. Thousand Oaks, California: Sage Publications, Inc.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. (3rd ed.). Thousand Oaks, California: Sage.
- Crosnoe, R., Cavanagh, S. & Elder, G. H. (2003). Adolescent friendships as academic resources: The intersection of friendship, race and school disadvantage. *Sociological Perspectives*, 46(3), 331-352.
- Dauphinee, T. L., Shau, C., & Stevens, J. J. (1997). Survey of attitudes toward statistics: Factor structure and factorial invariance for women and men. *Structural Equation Modelling: Multidisciplinary Journal*, 4(2), 129-141.
- Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies*, 9, 1-11. doi: 10.1007/s10902-006-9018-1
- De Klerk, M. (2007). Leading the traumatised organisation towards wellness. *Management Today*, (April), 46-49.
- De Klerk, W. (2008). A discussion of a unique collaboration model between schools (Unpublished master's dissertation). North-West University, Potchefstroom.

- De Klerk, W., & Nienaber, A. W. (2011). A discussion of a unique collaboration model between schools. *Psychology Research, 1*(3), 170-181.
- De Klerk, W., Temane, Q. M., & Nienaber, A. W. (2013). The psychometric properties of the Adapted and Revised Organisational Climate Description Questionnaire (AAROCNQ). *Journal of Psychology in Africa, 23*(1), 139-144.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands resources model of burnout. *Journal of Applied Psychology, 86*, 499-512.
- De Vos, A. S. (2002). *Research at grass roots for the social sciences and human service professions* (2nd ed.). Pretoria: Van Schaik.
- De Yébenes Prous, M. J. G., Salvanés, F. R., & Ortells, L. C. (2009). Validation of questionnaires. *Reumatol Clin, 5*(4), 171-177.
- Dodd, N., & Snelgar, R. (n.d.). *Core Self-Evaluations and Black Consciousness in post-apartheid Zululand, South Africa*. Retrieved March 27, 2013 from <http://www.ipedr.com>
- Donald, D., Lazarus, S., & Lolwana, P. (2002). *Educational psychology in social context*. (2nd ed.). Cape Town: Oxford University Press.
- Elias, M. J., Zins, J. E., Graczyk, P. A., & Weissberg, R. P. (2003). Implementation, sustainability, and scaling up of social emotional and academic innovations in public schools. *School Psychology Review, 32*(2), 303-319.
- Fakir, Z. (2010). Examination of the instantaneous relationship between perceptions of workload on emotions in the context of a longitudinal study (Unpublished master's thesis). University of the Witwatersrand, Johannesburg.

- Fernet, C., Guay, F., Senècal, G., & Austin, S. (2012). Predicting intraindividual changes in teacher burnout: The role of perceived school environment and motivational factors. *Teaching and Teacher Education, 28*, 514-525.
- Field, A. (2005). *Discovering statistics using SPSS*. (2nd ed.). London, England: Sage.
- Fisher, C. D. (2010). Happiness at work. *International Journal of Management Review, 12*, 384-412. doi: 10.1111/j.1468-2370.2009.00270.x
- Fredrickson, B. L. (2004). The broaden-and-build theory of positive emotions. *Phil. Trans. R. Soc. Lond. B, 359*, 1367-1377. doi:10.1098/rstb.2004.1512.
- Gallagher, M. W., Lopez, S. J., & Preacher, K. J. (2009). The hierarchical structure of well-being. *Journal of Personality, 77*, 1025-1049.
- Gardner, G., & Pierce, L. (2009). The Core Self-Evaluation Scale: Further construct validation evidence. *Educational Psychological Measurement, 70*(2), 291-304.
- Gendall, P., Carmichael, V., & Hoek, J. (1997). A test of the conversational logic analysis model of questions order effects. *Marketing Bulletin, 8*, 41-52.
- Gohm, C. L., & Clore, G. L. (2002). Four latent traits of emotional experience and their involvement in well-being, coping and attributional style. *Cognitions and Emotions, 16*(4), 495-518.
- Gravetter, F. J., & Forzano, L. B. (2009). *Research methods for the behavioural sciences*. (3rd ed.). Belmont, CA: Wadsworth Cengage Learning.
- Green, K.W., Medlin, B., & Whitten, D. (2004). Developing optimism to improve performance: An approach for the manufacturing sector. *Industrial Management & Data Systems, 104*(2):106-114.

- Hart, P. M., Carter, N. L., Conn, M., Dingle, R. K., & Wearing, A. J. (1993, November). *Development of the School Organisational Health Questionnaire: A measure for assessing teacher morale and school organisational climate*. Paper presented at the 1993 National Conference of the Australian Association for Research in Education, Freemantle.
- Hakanen, J. J., Perhoniemi, R., & Toppinen-Tanner, S. (2008). Positive gain spirals at work: From job resources to work engagement, personal initiative and work-unit innovativeness. *Journal of Vocational Behaviour, 73*, 78-91.
- Hatch, T. (2000). What does it take to break the mold? Rhetoric and reality in new American schools. *Teacher College Record, 102*, 561-589.
- Henderson, L. W., & Knight, T. (2012). Integrating the hedonic and eudaimonic perspectives to more comprehensively understand wellbeing and pathways to wellbeing. *International Journal of Wellbeing, 2*(3), 196-221. doi: 10.5502/ijw.vi3.3
- Holloway, I., & Wheeler, S. (2002). *Qualitative research in nursing*. Oxford: Blackwell
- Hopkins, W. G. (2000). *Quantitative research design*. Retrieved from <http://www.sportsci.org/jour/0001/wghdesign.html>
- Hoy, W. K. (2011). Wayne K. Hoy Home Page - Educational Administration. Retrieved January 16, 2011, from the Ohio State University, School of Educational Policy and Leadership Web site: <http://www.coe.ohio-state.edu/whoy>
- Hoy, W. K., Hoffman, J., Sabo, D., & Bliss, J. (1996). The organizational climate of middle schools: The development and test of the OCDQ-RM. *Journal of Educational Administration, 34*(10), 42-59.

- Hoy, W., & Miskel, C. (2005). *Education administration: theory, research, and practice* (7th ed.). New York: McGraw-Hill.
- Hulpia, H., Devos, G., & Van Keer, H. (2011). The relationship between school leadership from a distributed perspective and teachers' organisational commitment: Examining the source of the leadership function. *Educational Administration Quarterly*, *47*(5), 728-771.
- Jackson, L. T. B., & Rothmann, S. (2005). An adapted model of burnout for educators in South Africa. *South African Journal of Education*, *25*(2), 100-108.
- Jackson, L. T. B., & Rothmann, S. (2006). Occupational stress, organizational commitment, and ill-health of educators in the North-West Province. *South African Journal of Education*, *26*, 75-95.
- Jackson, L. T. B., Rothmann, S., & Van de Vijver, F. J. R. (2006). A model of work-related well-being for educators in South Africa. *Stress and Health*, *22*, 263-274.
- Jooste, H., & White, C. J. (2011). Education for all: Experiences of principals at rural secondary schools in Mpumalanga province. *Africa Education Review*, *8*(3), 588-600. Retrieved from <http://www.dx.doi.org/10.1080/18146627.2011.618725>
- Judge, T. A., Van Vianen, A. E., & De Pater, I. E. (2004). Emotional stability, core self evaluations, and job outcomes: A review of the evidence and an agenda for future research. *Human Performance*, *17*, 327-347.
- Kapp, A. (2010). *Financial stress, neighborhood stress, and well-being: Mediation and moderation models*. Retrieved from [http://www.digitalcommons.iwu.edu/psyc\\_honproj/142](http://www.digitalcommons.iwu.edu/psyc_honproj/142)

- Kelley, R.C. (2005). *Relationships between measures of leadership and school climate*. Retrieved from [http://www.findarticles.com/p/articles/mi\\_qa3673/is\\_200510/ai\\_n15641817/print](http://www.findarticles.com/p/articles/mi_qa3673/is_200510/ai_n15641817/print).
- Keyes, C. L. M. (2005). Chronic physical conditions and aging: Is mental health a potential protective factor? *Ageing International*, 30(1), 88-104.
- Keyes, C. L. M. (2005). The subjective well-being of America's youth: Toward a comprehensive assessment. *Adolescent and Family Health*, 4, 3-11.
- Keyes, C. L. M. (2006). Mental health in adolescence: Is America's youth flourishing. *American Journal of Orthopsychiatry*, 76(3), 395-402.
- Keyes, C. L. M. (2007). Promoting and protecting mental health as flourishing: A complementary strategy for improving national mental health. *American Psychologist*, 63(2), 95-108.
- Keyes, C. L. M., Wissing, M. P., Potgieter, J. P., Temane, Q. M., Kruger, A., & Van Rooy, S. (2008). Evaluation of the Mental Health Continuum-Short Form (MHC-SF) in Setswana-Speaking South Africans. *Clinical Psychology and Psychotherapy*, 15, 181-192.
- Khumalo, I. P. (2011). The evaluation of the general psychological well-being and the mental health continuum models in an African context (Unpublished doctoral dissertation). North-West University, Potchefstroom.
- Khumalo, I. P., Temane, Q. M., & Wissing, M. P. (2012). Socio-demographic variables, general psychological well-being and the mental health continuum in an African context. *Soc Indic Res*, 105, 419-442. doi: 10.1007/s11205-010-9777-2

- Kim, H. S., Sherman, D. K., & Taylor, S. E. (2008). Culture and social support. *American Psychologist*, 63(6), 518-526.
- Kumar Mishra, S., & Bhatnagar, D. (2010). Linking emotional dissonance and organizational identification to turnover intention and emotional well-being: A study of medical representatives in India. *Human Resources Management*, 49(3), 401-419.
- Koen, M. P., Van Eeden, C., & Wissing, M. P. (2011). The prevalence of resilience in a group of professional nurses. *Health South Africa Gesondheid*, 16(1), 1-11. doi: 10:4102/hsag.v16i1.576
- Lamers, S. M. A., Westerhof, G. J., Bohlmeijer, E. T., Ten Klooster, P. M., & Keyes, C. L. M. (2011). Evaluating the psychometric properties of the Mental Health Continuum-Short Form (MHC-SF). *Journal of Clinical Psychology*, 67(1), 99-110.
- Leithwood, K. A., & Riehl, C. (2003). *What we know about successful school leadership*. Retrieved from <http://www.cepa.gse.rutgers.edu/whatweknow.pdf>.
- Luthans, F. (2002). The need for and meaning of positive organizational behaviour. *Journal of Organizational Behavior*, 26, 695-706.
- Mafora, P. (2013). Managing teacher retention in a rural school district in South Africa. *The Australian Educational Researcher*. doi: 10.1007/s13884-013-0088-x
- Malloy, W. W., & Allen, T. (2007). Teacher retention in a teacher resiliency-building rural school. *The Rural Educator*, 19-27.
- Maree, K., & Pietersen, J. (2009). Sampling. In K. Maree (Ed.), *First Steps In Research* (3rd ed., pp. 172-180). Pretoria: Van Schaik Publishers.

- Maritz, D. (2006). Leadership and trust. In S. P. Robbins, A. Odendaal & G. Roodt (Eds.), *Organisational behaviour: Global and Southern African perspectives* (2nd ed., pp. 241-267). Cape Town: Pearson Education.
- Masitsa, M. G. (2004). Four critical causes of underachievement in township secondary schools. *Acta Academica*, 36(1), 213-245.
- Mbatha, P. N. (2005). The implementation of an institutional support team in a rural primary school in KwaZulu-Natal (Unpublished master's dissertation). University of Johannesburg, Johannesburg.
- Mentz, P. J., & Van der Westhuizen, P. C. (1993, April). *Organisational climate in schools in white communities in South Africa: A validation of OCDQ-RS*. Paper presented at the annual meeting of the American Educational Research Association, Atlanta, GA.
- Mdletshe, K. D. (1999). Characteristics of an effective township school for quality assurance (Unpublished doctoral thesis). Rand Afrikaans University, Johannesburg.
- Mitchell, M. L., & Jolley, J. M. (2010). *Research design explained*. (7th ed.). Belmont, USA: Wadsworth Cengage Learning.
- Montgomery, A., Mostert, K., & Jackson, L. (2005). Burnout and health of primary school educators in the North-West Province. *South African Journal of Education*, 25(4), 266-272.
- Mulaik, S. A., James, L. R., Van Alstine, J., Bennett, N., Lind, S., & Stilwell, C. D. (1989). Evaluation of goodness-of-fit indices for structural equation models. *Psychological Bulletin*, 105(3), 430-445.

- Ndimande, B. (2006). Parental choice: The liberty principle in education finance. *Perspectives in Education, 24*(2), 143-156.
- Ngubane, W. S. (2005). An investigation into implementation of participative management in a rural school in the Pietermaritzburg district (Unpublished master's dissertation). Rhodes University, Grahamstown.
- Olivier, M. A. J. (2006). The impact of deprived environments on learner motivation. *Africa Education Review, 3*(1+2), 48-66.
- Ozer, E. M., & Bandura, A. (1990). Mechanisms governing empowerment effect: A self efficacy analysis. *Journal of Personality and Social Psychology, 58*(2), 472-486.
- Park, N. (2004). The role of subjective well-being in Positive youth development. *Annals of the American Academy of Political and Social Science, 591*, 25-39.
- Perreault, W. D. (1976). Controlling order-effect bias. *The Public Opinion Quarterly, 39*(40), 544-551.
- Phelps, P. H. (2008). Helping teachers become leaders. *The Clearing House: A Journal of Educational Strategies, 81*(3), 117-122.
- Pietersen, J., & Maree, K. (2009). Statistical analysis 1: Descriptive statistics. In K. Maree (Ed.). *First steps in research* (3rd ed., pp. 183-195). Pretoria: Van Schaik Publishers
- Pietersen, J., & Maree, K. (2009). Standardisation of a questionnaire. In K. Maree (Ed.). *First steps in research* (3rd ed., pp. 215-222). Pretoria: Van Schaik Publishers.
- Pretorius, S., & De Villiers, E. (2009). Educators' perceptions of school climate and health in selected primary schools. *South African Journal of Education, 29*, 33-52.

- Price, H.E. (2012). Principal-teacher interactions: How affective relationships shape principal and teacher attitudes. *Educational Administration Quarterly*, 48(1), 39-85.
- Robertson, I. T., & Cooper, C. L. (2010). Full engagement: The integration of employee engagement and psychological well-being. *Leadership & Organization Development Journal*, 31(4), 324-336.
- Robitschek, C., & Keyes, C. L. M. (2009). The structure of Keyes model of mental health and the role of personal growth initiative as a parsimonious predictor. *Journal of Counseling Psychology*, 56, 321-329.
- Ross, C. E., Reynolds, J. R., & Geis, K. J. (2000). The contingent meaning of neighborhood stability for residents' psychological well-being. *American Sociological Review*, 65(4), 581-597.
- Ross, S. W., Romer, N., & Horner, R. H. (2012). Teacher well-being and the implementation of school-wide positive behavior interventions and supports. *Journal of positive Behavior Interventions*, 14(2), 118-128.
- Rothmann, S., & Jordaan, G. M. E. (2006). Job demands, job resources and work engagement of academic staff in South African higher education institutions. *South African Journal of Industrial Psychology*, 32(4), 87-96.
- Rothmann, S., & Rothmann, S. (2010). Factors associated with employee engagement in South Africa. *South African Journal of Industrial Psychology*, 36(2), 1-12. doi: 104102/sajipv36i2925
- Ruiz-Mock, M. (2007). Female school leadership, educator resilience strategies, and student outcomes in an English primary school (Unpublished doctoral dissertation). University of Phoenix, Arizona.

- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52*, 141-166. doi: 10.1146/annurev.psych.52.1.141
- Salama-Younes, M. (2011). Positive mental health, subjective vitality and satisfaction with life for French physical education students. *World Journal of Sport Sciences, 4*(2), 90-97.
- Salanova, M., Bakker, A. B., & Llorens, S. (2006). Flow at work: Evidence for an upward spiral of personal and organisational resources. *Journal of Happiness Studies, 7*, 1-22. doi: 10.1007/s10902-005-8854-8
- Salanova, M., Llorens, S., & Schaufeli, W. B. (2011). "Yes, I can, I feel good, and I just do it". On gain cycles and spirals of efficacy beliefs, affect, and engagement. *Applied Psychology: An International Review, 60*(2), 255-285.
- Saleem, A., & Shah, A. (2011). Self-efficacy as a stress-coping mechanism among teachers: A critical literature review. *African journal of Business Management, 5*(35), 13435-13441. doi: 10.5897/AJBMX11.023
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organisational Behaviour, 25*, 283-315.
- Schaufeli, W. B., Bakker, A. B., & Van Reenen, W. (2009). How change in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organisational Behaviour, 30*, 893-917.
- Schulze, S. (2006). Factors influencing the job satisfaction of academics in higher education. *South African Journal of Higher Education (SAJHE), 20*(2), 318-335.

- Skaalvik, E. M., & Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education, 26*, 1059-1069.
- Spillane, J. P. (2005). Distributed leadership. *The Educational Forum, 69*, 143-150.
- Spratt, J., Shucksmith, J., Philip, K., & Watson, C. (2006). 'Part of who we are as a school should include responsibility for well-being': Links between the school environment, mental health and behaviour. *Pastoral Care in Education, 24*(3), 14-21.
- Stewart, D., & McWhirter, J. (2007). Thinking positive: The importance of resilience and listening to children and young people. *Health Education, 107*(6), 489-493.
- Stewart, D., Sun, J., Patterson, C., Lemerle, K., & Hardie, M. (2004). Promoting and building resilience in primary school communities: Evidence from a comprehensive health promoting school approach. *International Journal of Mental Health Promotion, 6*(3), 26-33.
- Strauss, R. (2007). A positive perspective on adolescent mental health. *Continuing Medical Education, 25*(5), 232-235.
- Swanepoel, C. (2009). A comparison between the views of teachers in South Africa and six other countries on involvement in school change. *South African Journal of Education, 29*, 461-474.
- Tsaousis, I., Nikolaou, I., Serdaris, N., & Judge, T. A. (2007). Do the core self-evaluations moderate the relationship between subjective well-being and physical and psychological health? *Personality and Individual Differences, 42*, 1441-1452.
- Tschannen-Moran, M., & Barr, M. (2004). Fostering learning: The relationship of collective teacher efficacy and student achievement. *Leadership and Policy in Schools, 3*(3), 189-209. doi: 10.1080/15700760490503706

- Tugade, M., M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology, 86*(2), 320-333.
- Van der Westhuizen, P. C. (2002). *Schools as organisations*. Pretoria: Van Schaik Publishers.
- Van Wyk, E. (2006, October 15). 80% van skole doen nie hulle werk nie (80% of schools do not do their work). *Rapport*.
- Visser, C. A. (2006). Emotion work and well-being of secondary school educators (Unpublished master's dissertation). North-West University, Potchefstroom.
- Vos, D., Van der Westhuizen, P. C., Mentz, P. J., & Ellis, S. M. (2012). Educators and the quality of their work environment: An analysis of the organisational climate in primary schools. *South African Journal of Education, 32*, 56-68.
- Wahlstrom, K. L., & Louis, K. S. (2008). How teachers experience principal leadership: The roles of professional community, trust, efficacy, and shared responsibility. *Educational Administration Quarterly, 44*(4), 458-495.
- Walker, H. J. (1999). Clarifying the affective component of psychological well-being (Unpublished master's dissertation). North-West University, Potchefstroom.
- Wang, M. G., Haertel, G. D., & Wallberg, H. J. (1997). Fostering Educational Resilience in Inner-City Schools. *Children and Youth, 7*, 119-140.
- Ward, G. (2011, Nov). *Leaving the profession: One teacher's view of her department work environment and its impact on her decision to leave*. Paper presented at the Science Education Research Symposium, Auckland, New Zealand.

- Wassenaar, D. R. (2006). Ethical issues in social science research. In M. Terre Blanche, K. Durrheim & D. Painter (Eds.). *Research in practice: Applied methods for the social sciences* (2nd ed. pp. 60-79). Cape Town: UCT.
- Waterman, A. S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (eudaimonia) and hedonic engagement. *Journal of Personality and Social Psychology*, 64(4), 678-691. doi: 10.1037/10022-3514.4.678
- Weaver, D. (2010). *The relationship between cultural/ethnic identity and individual protective factors of academic resilience*. Retrieved from [http://www.counselingoutfitters.com/vistas/vistas10/Article\\_67.pdf](http://www.counselingoutfitters.com/vistas/vistas10/Article_67.pdf).
- Wei, C. C. (2009). Psychosocial predictors of motivation to change among adolescents with substance use disorders (Unpublished master's thesis). Ohio University, Athens.
- Wei, W., & Tarormina, R. J. (2011). Factors influencing work efficacy in China. *Advances in Applied Sociology*, 1(1), 56-57.
- Willers, M. (2009). Stress, coping behaviour and the psychological well-being of a group of South African teachers: The SABPA study (Unpublished master's dissertation). North-West University, Potchefstroom.
- Williams, S., Wissing, M. P., Rothmann, S., & Temane, Q. M. (2010). Self-efficacy, work, and psychological outcomes in public service context. *Journal of Psychology in Africa*, 20(1), 43-52.
- Wissing, M. P., & Van Eeden, C. (2002). Empirical clarification of the nature of psychological well-being. *South African Journal of Psychology*, 31(1), 32-44.
- Wissing, J. A. B., Wissing, M. P., Du Toit, M. M. & Temane, Q. M., (2008), "Psychometric

properties of various scales measuring psychological well-being in a South African context: The FORT 1 project. *Journal of Psychology in Africa* 18(4), 511–520.

Woolfolk Hoy, A. (2000, April). *Changes in teacher efficacy during the early years of teaching*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Yonezawa, S., Jones, M., & Singer, N. R. (2011). Teacher resilience in urban schools: The importance of technical knowledge, professional community, and leadership opportunities. *Urban Education*, 46(5), 913-931. doi: 10.1177/0042085911400341

Zhang, W., Chen, Q., McCubbin, H., McCubbin, L., & Foley, S. (2010). Predictors of mental and physical health: Individual and neighborhood levels of education, social well-being, and ethnicity. *Health & Place*. doi: 10.1016/j.healthplace.2010.10.008

## APPENDIX

A



## WESTERN CAPE Education Department

Provincial Government of the Western Cape

**RES  
EAR  
CH**

[awynngaar@pawc.gov.za](mailto:awynngaar@pawc.gov.za)  
tel: +27 021 476 9272  
Fax: 0865902282  
Private Bag x9114, Cape Town, 8000  
[wced.wcape.gov.za](http://wced.wcape.gov.za)

**REFERENCE:** 20110719-0017

**ENQUIRIES:** Dr A T Wyngaard

Mr Werner de Klerk  
Posbus 7396  
Newcastle  
2940

Dear Mr Werner de Klerk

### RESEARCH PROPOSAL: THE DYNAMICS OF PSYCHO-SOCIAL WELL-BEING IN AFRI-TWIN SCHOOLS

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. Educators' programmes are not to be interrupted.
5. The Study is to be conducted from **01 August 2011 till 30 August 2012**
6. No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December).
7. Should you wish to extend the period of your survey, please contact Dr A.T Wyngaard at the contact numbers above quoting the reference number.
8. A photocopy of this letter is submitted to the principal where the intended research is to be conducted.
9. Your research will be limited to the list of schools as forwarded to the Western Cape Education Department.
10. A brief summary of the content, findings and recommendations is provided to the Director: Research Services.
11. The Department receives a copy of the completed report/dissertation/thesis addressed to:  
**The Director: Research Services  
Western Cape Education Department  
Private Bag X9114  
CAPE TOWN  
8000**

We wish you success in your research.

Kind regards.

Signed: Audrey T Wyngaard

for: **HEAD: EDUCATION**

**DATE: 19 July 2011**

---

MELD ASSEBLIEF VERWYSINGSNOMMERS IN ALLE KORRESPONDENSIE / PLEASE QUOTE REFERENCE NUMBERS IN ALL CORRESPONDENCE /  
NCEDA UBHALE INOMBOLO ZESALATHISO KUYO YONKE IMBALELWANO

GRAND CENTRAL TOWERS, LAER-PARLEMENTSTRAAT, PRIVAATSAK X9114, KAAPSTAD 8000  
GRAND CENTRAL TOWERS, LOWER PARLIAMENT STREET, PRIVATE BAG X9114, CAPE TOWN 8000

**WEB:** <http://wced.wcape.gov.za>

**INBELSENTRUM /CALL CENTRE**

INDIENSNEMING- EN SALARISNAVRAE/EMPLOYMENT AND SALARY QUERIES ☎0861 92 33 22  
VEILIGE SKOLE/SAFE SCHOOLS ☎ 0800 45 46 47

B



**education**  
 Lefapha la Thuto  
 Onderwys Departement  
 Department of Education  
**NORTH WEST PROVINCE**

Teemane Building  
 8 DR Tambo Street  
 Private Bag X1256  
 POTCHEFSTROOM 2520  
 Tel: (018) 299 8296  
 Fax: (018) 299 8290  
 Enquiries: Ms Carablie Mokubung  
 E-mail: emokubung@nwpg.gov.za

---

DR KENNETH KAUNDA DISTRICT

---

OFFICE OF THE EXECUTIVE DISTRICT MANAGER

To Werner de Klerk  
 Research psychologist  
 North-West University  
 Potchefstroom  
 2520

From : Dr S.H Mvula  
 Executive District Manager

Date : 20 January 2011

**PERMISSION TO CONDUCT RESEARCH WITH FEW SCHOOLS IN THE DR KENNETH KAUNDA DISTRICT**

We hereby acknowledge receipt of your e-mail dated 20 January 2011. Please note that your request on the above subject has been granted under the following provisions:

1. Participants selected should not be coerced;
2. Interviews to participants (educators) should strictly be after school hours; and
3. A copy of the thesis to be donated to the District upon completion of your studies.

Wishing you well in your endeavour.

Thanking you

**DR S.H MVULA**  
**EXECUTIVE DISTRICT MANAGER**

C



kzn education

 Department:  
 Education  
 KWAZULU-NATAL

AMAJUBA DISTRICT

 Dannhauser Circuit Office  
 Date: 27/04/2011  
 Enquiries: Masondo N.C  
 OFFICE: 034 621 2578

Dear Mr. Werner de Klerk

Response to Research Request at Indoni Primary School

I would like to acknowledge your request for permission to conduct **Research in Amajuba District**. I appreciate the interest you have shown in the schools in our District. Your request to conduct research at [REDACTED] has been accepted.

Hence you are requested to submit your proposed detailed schedule to the [REDACTED]. She will then communicate all the details to the **Management Team** and the **School Governing Body**.

I hope this office will be forwarded with a final report after your research has been conducted, that will assist us in improving education in Amajuba District.

I wish you well with your research.

Regards

Mrs N.C Masondo  
 072 2643 999  
 Osizweni Ward Manager

...dedicated to service and performance  
 beyond the call of duty.

KWAZULU-NATAL DEPARTMENT OF EDUCATION

POSTAL Private Bag X 1036, Dannhauser, 3080, KwaZulu-Natal, Republic of South Africa

PHYSICAL Dannhauser Circuit Office, 28 Main Street, Dannhauser, 3080

TEL Tel: +27 34 621 2578 / 2582

FAX 034 621 2582

D

**Werner De Klerk - RE: Request for permission to use MHC -SF**

---

**From:** "Keyes, Corey" <ckeyes@emory.edu>  
**To:** Werner De Klerk <12998699@nwu.ac.za>  
**Date:** 2011/01/20 04:27 PM  
**Subject:** RE: Request for permission to use MHC -SF  
**Attachments:** MHC-SF Brief Description 6.29.10.doc

---

Werner,

You can certainly use the MHC-SF in your research and I wish you the best of luck with the study.

Sincerely,

Dr. Keyes (Corey)

---

**From:** Werner De Klerk [mailto:12998699@nwu.ac.za]  
**Sent:** Thursday, January 20, 2011 6:24 AM  
**To:** Keyes, Corey  
**Subject:** Request for permission to use MHC -SF  
**Importance:** High

Dear Prof Keyes,

My name is Werner de Klerk and I am a PhD student at the North-West University.

I would like to request permission to use your MHC-SF questionnaire for my research study?

The aim of my study is to look at the well-being of schools by determining their organizational climate, by evaluating the mental health, resilience and core self-evaluations of the teachers and headmasters, and finally determining the capabilities of the schools. The MHC-SF will be 1 of the many questionnaires that I will use.

My study leaders will be Dr Alida Nienaber and Michael Temane

Regards

Werner de Klerk  
 Research Psychologist  
 North-West University  
[12998699@nwu.ac.za](mailto:12998699@nwu.ac.za)

Vrywaringsklousule / Disclaimer: <http://www.nwu.ac.za/it/gov-man/disclaimer.html>

file:///C:/Documents and Settings/Administrator/Local Settings/Temp/XPgrpwise/4D3... 2013/04/23

E

**Werner De Klerk - RE: SOUTH AFRICAN RESEARCH**

---

**From:** "Timothy A. Judge" <tjudge@nd.edu>  
**To:** Werner De Klerk <12998699@nwu.ac.za>  
**Date:** 2011/01/11 03:17 PM  
**Subject:** RE: SOUTH AFRICAN RESEARCH  
**Attachments:** signature\_logo.png; environment.gif

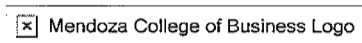
---

Hello,

If you click on the 'a' link below and then the measures tab you will find the CSES.

Best regards,

Tim Judge



TIMOTHY A. JUDGE, Ph.D.  
 Visiting Franklin D. Schurz Professor  
 Management

.....  
 \* \* \*  
 MENDOZA COLLEGE OF BUSINESS  
 UNIVERSITY OF NOTRE DAME  
 360 Mendoza College of Business  
 Notre Dame, IN 46556  
 p: (574) 631-4802 | f: (574) 631-5255 | m: (352) 514-5416  
 e: [tjudge@nd.edu](mailto:tjudge@nd.edu) | w: <http://business.nd.edu>  
 a: [www.timothy-judge.com](http://www.timothy-judge.com)

Please consider the environment before printing this e-mail.

---

**From:** Werner De Klerk [<mailto:12998699@nwu.ac.za>]  
**Sent:** Tuesday, January 11, 2011 4:46 AM  
**To:** [timothy.judge@cba.ufl.edu](mailto:timothy.judge@cba.ufl.edu)  
**Subject:** SOUTH AFRICAN RESEARCH  
**Importance:** High

Dear Timothy A. Judge,

My name is Werner de Klerk and I am a doctoral student at the North-West University, South Africa.

I am writing to you because I want to know if I you can give me a copy of the Core Self-Evaluation Scale (CSES)? I have read a few articles regarding it and my study leader (Prof Michael Temane) and I feel that this measure could be usefull regarding my research.

Can you please help me in this regard and if I may use the scale also send me a letter of permission?

Thank you and I am looking forward to hear from you

Werner de Klerk  
 Dept of Psychology  
 North-West University  
 South Africa  
 Email: [12998699@nwu.ac.za](mailto:12998699@nwu.ac.za)

Vrywaringsklousule / Disclaimer: <http://www.nwu.ac.za/it/gov-man/disclaimer.html>

file://C:\Documents and Settings\Administrator\Local Settings\Temp\XPgrpwise\4D2... 2013/04/23