Positive psychology interventions in schools: A critical review

J Dormehl


orcid.org/0000-0002-2723-139X

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Supervisor: Dr Werner de Klerk

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Student number: 29027349

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SUMMARY

Positive psychology interventions in schools: A critical review

Keywords: positive psychology, positive psychology interventions, schools, learners, well-being, critical review.

The youth in South Africa face increased complexities and challenges on a daily basis, such as unemployment, substandard education, poor living conditions, low morale, substance misuse, risky sexual behaviour, bullying, violence and inadequate access to health care, with many factors that could negatively affect their mental and physical well-being. The quality of the South African education system is lacking tremendously, contributing to its status as one of the worst in the world. It is imperative that youth, especially school goers, are sufficiently equipped with the skills necessary to build resilience and hope in order to uplift them from mental illness and to build up their strength and well-being. The main aim of schools used to be academic excellence, but there has been a shift whereby learners are being acknowledged in a more holistic way and focused on well-being to assist learners in flourishing psychologically, socially and academically.

Positive psychology interventions (PPIs) are programmes, practices, treatment methods or intentional activities aimed at enhancing positive feelings, cognitions and behaviours. PPIs enhance psychological and subjective well-being, and reduce symptoms of depression. PPIs are used in school settings to enhance mental health, to increase well-being and strength, and to empower educational staff and school learners.

A critical literature review has been conducted for this study in order to review what has been investigated and written until now, and to provide a comprehensive account of positive psychology interventions and the effectiveness thereof within the school setting. The focus on PPIs in schools is motivated by the need for intervening positively in the education

system, specifically in South Africa. Although there is expansive literature on positive psychology as a topic and sources with a focus on positive psychology in schools, it is necessary for the findings to be synthesised, allowing for a clearer empirical understanding of this phenomenon.

All the data for the critical review came from English peer-reviewed published studies which scientifically evaluated the effectiveness of PPIs or programmes aimed to increase positive factors of learners within a school setting. Once the search and appraisal of literature had been conducted successfully, 18 studies were included in the final pool for analysis. Thematic analysis was used to identify themes for the study. Important themes, which were identified, included: intrapersonal well-being (autonomy, emotional regulation and resilience, self-efficacy and self-esteem); interpersonal well-being (empathy, acceptance and connectedness); feeling happy (positive affect, negative affect and life satisfaction); enjoy, engage and excel at school; and context of PPIs reviewed (location of schools in studies, grades of samples and settings).

This research study provides a synthesis of the effectiveness of PPIs implemented in school settings. Therefore, this research study can be used as the foundation for further studies and the development and implementation of PPIs within the South African school setting. This research study reveals the effectiveness of positive psychology in schools and the importance of utilising PPIs to uplift learners and teachers, and to improve their well-being, academic outcomes and school climate.

PREFACE

According to Rule A 4.4.2.9 of the North-West University, this mini-dissertation adheres to the predetermined rules and regulations for utilising the article model. Furthermore, the entire mini-dissertation adheres to the established guidelines provided by the American Psychological Association (APA: 6th edition), while Section 2 of the mini-dissertation adheres to the author guidelines of the identified journal. In relation to the latter statement, the aim of this mini-dissertation is to submit the article to the *Journal of Psychology in Africa*, an accredited and peer-reviewed journal, with the potential to be published therein. As indicated in the table of contents, the entire mini-dissertation exhibits chronological page numbers – Section 1 starts on page 1 and it continues chronologically to the reference list at the end.

Yvonne Smuts is an adept language and technical editor, registered at the South African Translators' Institute (SATI), who assured that the quality of the language and the layout adhere to the expectancies of the North-West University. The researcher obtained scientific approval from the Scientific Committee (COMPRES) of the Faculty of Health Sciences of the North-West University for conducting this critical review. Miss Jamie-Lee Dormehl purposively and systematically generated data in fulfilment of the requirements for the master's degree in Research Psychology. The entire mini-dissertation was furthermore submitted to Turnitin to determine, establish and provide the North-West University researchers with a report stating the similarities that were detected in the mini-dissertation in relation to international databases, where it was determined (after necessary adjustments) that it fell within the norms of acceptable similarities.

PERMISSION LETTER FROM SUPERVISOR

Permission is hereby granted for the submission by Jamie-Lee Dormehl, of the following mini-dissertation for examination purposes towards the obtainment of a Master's degree in Research Psychology:

Positive psychology interventions in schools: A critical review

The role of the supervisor was as follow: Dr Werner de Klerk supervised the research inquiry in totality, and acted as second reviewer in the data analysis of the critical review article.



Dr Werner de Klerk

DECLARATION

I, Jamie-Lee Dormehl, declare that this research study, *Positive psychology interventions in schools: A critical review,* is initial work done by myself. This study serves in the partial fulfilment of my master's degree in Research Psychology done at the North-West University in Potchefstroom. This work has never been submitted for examination. The necessary consent of all relevant parties has been given to conduct this study, and throughout this mini-dissertation the required acknowledgment has been given to all reference material.



Jamie-Lee Dormehl

Student number: 29027349

STRUCTURE OF RESEARCH MINI-DISSERTATION

This mini-dissertation is comprised of three sections. Section 1 provides an all-encompassing in-depth literature overview which strives to provide relevant information regarding the structures and components of this study to orientate the reader (pages 1-34). Section 2 is a presentation of the article which includes the methodology used, research findings and discussion of the findings as well as limitations of the study and the conclusion (pages 40-76). The final section, section 3, is a critical reflection of the researcher's experiences of conducting this study as well as an overview and potential further applications of the study (pages 77-85).

SECTION 1: INTRODUCTION (Orientation and Problem Statement)

Introduction

The in-depth literature overview presented in section 1 aims to provide the reader with a broad understanding of the essential components of this research study. The topics covered in this literature overview include basic education in South Africa, positive psychology, positive psychology interventions, and positive psychology interventions in schools. The problem statement, aim, method, ethics and rigour will also be presented in this section.

Basic Education in South Africa

> *Education is the great engine of personal development. It is through education that the daughter of a peasant can become a doctor, that a son of a mineworker can become head of the mine, that a child of farm workers can become the president of a great nation. It is what we make out of what we have, not what we are given, that separates one person from another* (Nelson Mandela).

In the Constitution of the Republic of South Africa, 1996, Chapter 2: The Bill of Rights (section 29 (1)(a) and (b))stipulates that, everyone is guaranteed the right to basic education and further education (Constitution of the Republic of South Africa, 1996). This promise to education is in accordance with Article 1(1) of the World Declaration on Education for All adopted in 1990 (United Nations Educational, Scientific and Cultural Organization [UNESCO], 1990). Various highly regarded international instruments have been established in order to protect the right to education, including Article 26 of the Universal Declaration of Human Rights of 1948, Articles 13 and 14 of the International Covenant on Economic, Social and Cultural Rights of 1996, Articles 28 and 29 of the UN Convention on the Rights of the Child of 1898, and Article 2 of Protocol No. 1 to the European Convention for the Protection of Human Rights and Fundamental Freedoms of

1953 (Rapatsa & Matloga, 2014). It is clear that the fundamental right to education is of importance all around the world. It is largely understood and accepted that education is necessary for success, and the successful future of any country depends on children receiving quality basic education (Rapatsa & Matloga, 2014). Social and economic progress, durable peace and sustained development are dependent on the success of our education system (Simbo, 2012). If there lacks access to basic education in a country, it results in severe social disinvestment that compromises development of skills and knowledge which are necessary for children to make significant contributions to society (Rapatsa & Matloga, 2014). There are major social, economic and political benefits which are sustained from having an educated population (Simbo, 2012).

The term "basic education", although it has been promised to all, has not been given a definition in the Constitution of the Republic of South Africa. The term has its origins in the World Declaration on Education for All (UNESCO, 1990). Basic education is focused on the content of education, not the form it is conducted in, such as formal or inormal. It de-emphasises the completion of specific formal programmes or certification requirements (Murungi, 2015). The World Declaration on Education for All states that the focus of basic education should be on actual learning acquisition and outcomes, and not exclusively focused on enrolment, continued participation in organized programmes and completion of certification requirements (UNESCO, 1990).

The fundamental core to the right to education is basic education, which should include literacy skills, numeracy skills, problem solving, basic skills relating to health, hygiene and personal care, as well as social skills such as oral expression (Murungi, 2015). Basic education refers to the first layer of formal schooling with a focus on imparting basic skills, including literacy and numeracy (Murungi, 2015). Education is extremely important and a significant factor in the development of children, communities and countries. Quality

education for all children will assist in breaking intergenerational chains of poverty because education is linked to all development goals.

According to Results (2009) on why education is so important, education empowers women and girls, contributes to the improvement of child survival and maternal health, assists in the reduction of hunger, contributes to the fight against HIV/AIDS, assists in fighting poverty, spurs on economic growth and provides a foundation for peace building. Therefore, the importance of quality education for all cannot be overstated (Results, 2009). The South African government spends 17.7% of the total state expenditure and 4.9% of its gross domestic product (GDP) on education (United Nations Children's Fund [UNICEF], 2017) which is more than it spends on any other sector (South Africa Info, 2016). According to South Africa Info (2016), South Africa has one of the highest rates of public investment in education in the world. Nevertheless, despite this expenditure, the South African education system is said to be one of the worst in the world (The Economist, 2017) with the quality of education lacking tremendously (Iwu, Gwija, Benedict, & Tengeh, 2013; Letsaka, 2013).

Research has demonstrated the substantial impact education has on labour market outcomes such as employment and earnings as well as non-market outcomes like civic participation, health, longevity and criminal activity (Riddell, 2005). According to the Organisation for Economic Co-operation and Development (OECD, 2017), South Africa has the highest youth unemployment rate in the world at 53.4%. The lack of quality education in South Africa is demonstrated by the poor achievement of South African learners in international assessments, the Trends in International Mathematics and Science Study (TIMSS) and the Progress in International Reading Literacy Study (PIRLS). These assessments evaluate the curriculum with reference to international benchmarks, and assess whether the education system has improved over time, how equitable it is and the capabilities of South African school learners (Mullis, Martin, Goh, & Cotter, 2016).

The 2015 TIMSS International Mathematics Achievement presented the following results: South African Grade 4 achievement was placed 48th out of 49 countries and for Grade 8 achievement, South Africa was placed 38th out of 39 countries (Mullis, Martin, Foy, & Hooper, 2016). For the TIMSS Grade 8 International Science Achievement, South Africa came 39th out of 39 countries (Mullis, et al., 2016). In the PIRLS International Achievement in Reading for Grade 4 learners, South Africa came last out of 41 countries (Mullis, Martin, Foy, & Hooper, 2017).

The PIRLS further indicated that 78% of South Africa's Grade 4 learners did not reach the international benchmark for reading. It means that most Grade 4 learners cannot read for meaning in any language or retrieve basic information from texts to answer simplistic questions (Howie et al., 2017). Navsaria, Pasco and Kathard (2011) interviewed teachers to gain an understanding as to why written language difficulties are experienced by school learners and various ways they might overcome these difficulties. Through their findings it was suggested that within the school system level as well as individual learner and community levels there are both obstacles and opportunities (Navsaria et al., 2011). At the school system level it was discovered that the major challenges included lack of training and support for school teachers, learners with poor foundation skills and general difficulties with languages. To overcome these issues it was suggested that teachers receive more training and support, clear and consistent assessment guidelines be implemented, learners with needs be granted necessary remedial assistance and structures be implemented to ensure safe and nurturing home environments for learners (Navsaria et al., 2011). It is clear that the quality of education in South Africa is of great concern.

Various issues contribute to the lacking quality of education in South Africa. The range of quality in schools varies greatly in South Africa, both between government and private schools and among government schools themselves (Mobius, 2017). Government

schools can charge additional fees to maintain standards and facilities which makes for a higher quality of education in wealthier neighbourhoods than in poor neighbourhoods where families are unable to afford it (Mobius, 2017). The majority of learners are located in the historically disadvantaged system which still serves mainly black and coloured children (Van der Berg, Taylor, Gustafsson, Spaull, & Armstrong, 2011). Learners from these areas typically demonstrate a lower proficiency in reading, writing and numeracy. Learners in the wealthier neighbourhoods attend schools which historically served white children and produce an educational achievement closer to the norms of developed countries. It is mostly white and Indian learners who attend these schools, although black and coloured middle-class children are increasingly migrating to these schools (Van der Berg et al., 2011). Approximately 20% of South Africa's public schools produce acceptable educational outcomes, consisting of 10% of former white schools while exceptional township and village schools make up the other 10%. This means that only one in nine township and village schools actually delivers its stated educational purpose (Westaway, 2015).

Although school learners are legally entitled to receive quality education, thousands of South African schools lack the necessary infrastructure to enable this right to be fulfilled. The most recent National Education Infrastructure Management System Standard Report (NEIMS) of June 2016 (Department of Basic Education [DBE], 2016) states that 70% of South Africa's public schools are without libraries, specifically, 93% in the Eastern Cape and Limpopo, 81% in Mpumalanga, 76% in KwaZulu-Natal and North West, 69% in the Northern Cape, 45% in the Western Cape, and 37% in Gauteng (DBE, 2016).

Of the total of 23 577 ordinary operational schools in the NEIMS 2016 Standard Report, 15 897 are without computer centres and 20 292 are without a laboratory while 569 are without any electricity supply and 2 923 have an unreliable electricity supply. KwaZulu-Natal and the Eastern Cape have the highest numbers (DBE, 2016). Sixty-two (62) schools in

the Eastern Cape are without ablution facilities, 9 203 (of the total 23 577) still use a pit for an ablution, 1 750 use enviro loos, 7 105 use VIPs, 199 use mobile toilets, 94 use chemical toilets, 2 912 use flush toilets with a septic tank and 8 574 use municipal flush toilets. A total of 1 399 schools have no fencing surrounding the school grounds and 59 schools have no security, 21 591 schools have a gate and 1 844 schools have access control while 9 907 schools are without any sports facilities (DBE, 2016).

The lack of professionalism among teachers was identified as another contributor to the education crisis in South Africa (De Wet, 2016). In a quest to ensure all teachers were adequately qualified, a qualification framework for teachers was implemented. This framework led to the current four-year teacher training qualification and prerequisites that all newly qualified teachers should hold a degree from a university (De Wet, 2016). However, in 2013, 7 076 unqualified teachers with only a Grade 12 qualification were on the Department of Education's payroll. There were also 2 642 under-qualified teachers who had a Grade 12 and one or two years' tertiary education (De Wet, 2016). Savides (2017) reported that 5 139 teachers were unqualified of whom the majority were located in rural KwaZulu-Natal.

Positive Psychology

Positive psychology is associated with the Aristotelian model of human nature which views a good person as an individual with positive character, strengths and given virtues (Jørgensen & Nafstad, 2005). Positive psychology was introduced to the American Psychological Association by Martin E. P. Seligman in 1998 (Froh, 2004; Linley, Joseph, Harrington, & Wood, 2006). Seligman realised that psychology had become focused on weakness and damage as well as understanding of and therapy for mental illness, thus neglecting what it set out to achieve before World War II, namely curing mental illness,

helping all people lead more productive and fulfilling lives, and identifying and nurturing high talent (Linley et al., 2006; Lopez, Pedrotti, & Snyder, 2018).

In its development, psychology as a whole had scant knowledge of what made life worth living (Seligman & Csikszentmihalyi, 2000). The almost exclusive attention to pathology in the psychology model neglected the fulfilled individual and the thriving community. Seligman and Csikszentmihalyi (2000) called for a new science of happiness, excellence and optimal human functioning, requesting psychologists to devote some attention to positive features which made life worth living (Donaldson, Dollwet, & Rao, 2015; Seligman & Csikszentmihalyi, 2000).

In a special issue of the *American Psychologist* on *Happiness, Excellence, and Optimal Human Functioning*, they outlined a framework for a new science of positive psychology, and brought attention to topics such as happiness, subjective well-being, optimism, self-determination, wisdom, creativity, giftedness, states of excellence and positive youth development (Donaldson et al., 2015; Seligman & Csikszentmihalyi, 2000). With its focus on prevention rather than only on alleviating suffering, subjective well-being and life satisfaction formed the foundations of positive psychology (Garcês, Pocinho, Jesus, & Rieber, 2018).

Positive psychology should assist in understanding which kinds of families assist children to flourish, which work settings assist the greatest satisfaction amongst workers, which policies receive the result in the strongest civic engagement and how people's lives can be most worth living (Seligman & Csikszentmihalyi, 2000). Since Seligman's presidential address, remarkable achievements have been made for positive psychology as a movement, with books, journals and established regional positive psychology networks that span the globe (Linley et al., 2006). Most positive psychologists share a core belief that humans strive to lead good lives that are meaningful and happy. Therefore, positive psychology can be

applied in a variety of contexts, including schools, communities as well as work and family life (Donaldson et al., 2015).

Defining positive psychology. As with most schools in psychology, providing a concrete definition for positive psychology is not the easiest feat, as different positive psychologists have differing ideas of what defines positive psychology. Linley et al. (2006) state that positive psychology might be interpreted as being all things to all people and be perceived as a solution for various modern ills. Seligman and Csikszentmihalyi (2000) state that positive psychology is the study of how human beings prosper in the face of adversity.

Seligman and Csikszentmihalyi (2000) define positive psychology at three levels: subjective, individual and group levels. At the subjective level, positive psychology is defined by one's valued subjective experiences, including their past experiences of well-being, satisfaction and contentment, their view and experience of hope and optimism for the future, and their experiences of flow and happiness in the present (Seligman & Csikszentmihalyi, 2000). Positive psychology focuses on positive individual traits at the individual level including one's spirituality, originality, courage, wisdom, talent, perseverance, ability to forgive, interpersonal skills, aesthetic sensibility, future mindedness, as well as one's capacity for love and vocation (Seligman & Csikszentmihalyi, 2000). At the group level, the focus of positive psychology is on civic virtues and the various institutions which work towards assisting individuals towards becoming better citizens and positively developing individuals work ethic, responsibility, nurturance, altruism, civility, moderation and tolerance (Seligman & Csikszentmihalyi, 2000).

Sheldon and King (2001) state that positive psychology is simply psychology, the scientific study of ordinary human strengths and virtues, understanding what "works" for the average individual (Sheldon & King, 2001, p. 216). Gable and Haidt (2005) define positive psychology as the study of conditions and processes which assist individuals, groups and

institutions in flourishing and/or reaching optimal functioning. The *Journal of Positive Psychology* (2005) defines positive psychology as being about scientifically informed perspectives on what it is that makes life worth living, with a focus on aspects of the human condition which lead to happiness, fulfilment and flourishing (as cited in Linley et al., 2006).

There are certain aspects amongst the definitions of positive psychology which are consistent. However, there are some differences in the emphasis. Linley et al. (2006) attempt to provide a definition of positive psychology in hopes of identifying and delineating the different meanings provided by different academics as well as define what positive psychology is not. Linley et al. (2006) provide a meta-psychological level view of positive psychology which offers the grand vision of what positive psychology offers for the whole of psychology. This is a change in the focus of psychology from preoccupation with repairing the worst to building on positive qualities. Positive psychology attempts to redress a perceived imbalance in the focus of research attention and practice objectives in psychology (Linley et al., 2006). Positive psychology provides a different lens through which to understand human experience and the creation of a shared language which locates positive states, traits and outcomes in relation to each other (Linley et al., 2006).

Linley et al. (2006) also discuss the pragmatic level view which refers to what positive psychologists do regarding their research and practice. Four levels of analysis are distinguished. The *wellsprings* of interest to positive psychology are the processes and mechanisms which refer to the genetic foundations of well-being and early environmental experiences. These foundations allow the development of strengths and virtues. The *process* of interest of positive psychology is the psychological ingredients which lead to a good life. Positive psychology should seek to understand factors which facilitate optimal functioning as much as those which prevent it. The *mechanisms* of interest to positive psychology are the extra-psychological factors that facilitate (or impede) the pursuit of a good life. Mechanisms

include one's personal and social relationships, organisations or institutions to which one belongs and their working environments, the communities to which one belongs as well as the broader social, cultural, political and economic systems into which every individual's life is inextricably embedded. The *outcomes* of interest of positive psychology include that which characterises a good life within the subjective, social and cultural states of the individual. At a subjective level the outcomes include happiness, well-being, fulfilment and health. At an interpersonal level these outcomes include the positive communities and institutions which assist in fostering good lives. And at a social level these outcomes include political, economic and environmental policies which assist in the promotion of harmony and sustainability (Linley et al., 2006).

The goals of positive psychology are to identify and enhance human strengths and virtues which make life worth living, allowing individuals and communities to thrive. Positive psychology is linked with psychological well-being which follows two main directions: one concerning happiness and hedonic well-being, the other concerning development of human potential and eudaimonic well-being (Ruini, 2014). There is evidence that a positive mood can be a protective factor for physical and mental health, and that it may have a positive and therapeutic effect (Lyubomirsky, King, & Diener, 2005; Power, 2016).

Happy people, who experience a great deal of positive emotions, tend to be successful and accomplished across multiple life domains. A reason is because positive affect creates the feeling of success, and it also increases longevity (Lyubomirsky et al., 2005; Power, 2016). Positive affect assists the body to return homeostatic levels of arousal and to recover from physiological changes which are associated with negative emotions (Power, 2016). Individuals with positive moods and emotions lead, think, feel and act in ways that promote resource building and involvement with approach goals (Lyubomirsky et al., 2005). There is a correlation between positive emotions and growth and resilience and flourishing, sometimes

in adverse circumstances (Lyubomirsky et al., 2005; Power, 2016). Joy and happiness are important factors for long-term health and well-being (Lyubomirsky et al., 2005). The impact of negative emotions may be reduced at a number of levels through happiness, including psychological, cognitive and physiological levels (Power, 2016). Positivity and joy assist in the facilitation of exploration, play and social interaction, and builds social relationships (Power, 2016). Positive psychology is, therefore, beneficial if introduced and understood by people. Positive psychology interventions are used to assist individuals, communities and organisations with upliftment and development; thus positive growth and lifestyle.

Positive Psychology Interventions

Positive psychology interventions (PPIs) are programmes, practices, treatment methods or intentional activities which focus on cultivating positive feelings, behaviours and cognitions as well as building positive factors such as positive emotions, engagement, relationships, meaning and accomplishment (Sin & Lyubomirsky, 2009; Waters, 2011). In the second era of positive psychology research, there is a development of positive psychology interventions that are aimed at promoting positive characteristics and human functioning (Ruini, 2017). The first investigations, which have attempted to demonstrate that well-being can be increased sustainably through the engagement of happiness increasing activities, has been conducted as far back as the 1970s (Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2011).

Important elements of positive interventions include positive emotions, subjective well-being, human strengths and other positive personality characteristics such as compassion, hope and altruism (Ruini, 2017). PPIs can be effective in enhancing subjective well-being and psychological well-being as well as assisting in reducing depressive symptoms (Boiler et al., 2013). Various factors may influence the impact that PPIs have on individuals, including one's depression status, self-selection and age (Sin & Lyubomirsky,

2009). According to Seligman (as cited by Power, 2016), one needs to be satisfied about the past, optimistic about the future and happy in the present in order to be happy. This can be done by expressing gratitude in writing, positive thought and person-to-person. Through demonstrating gratitude, individuals become aware of the positive things which have happened to them in the past and this assists with them feeling happy in the present and thus feeling optimistic about the future (Power, 2016).

Positive psychology interventions in schools. As previously discussed, positive psychology is a relatively new branch of psychology which conducts the scientific enquiry into factors that assist individuals, communities and organisations to thrive by building on their strengths and virtues (Waters, 2011). Despite being a young movement with research building in this area, there is an increasing body of research which supports the notion that identifying and developing children's strengths could have profound long-term benefits (Galloway & Reynolds, 2015).

The increased ethos of whole school learner learning is in alignment with the emphasis of positive psychology on well-being, flourishing, character and meaning (Waters, 2011). Well-being plays an important role within a learner's school life, and therefore, human flourishing should form the core aim of education systems (Gill, as cited in Green & Norrish, 2013). School settings are the ideal places for positive psychology interventions which are focused on increasing happiness and well-being for learners because the majority of children and adolescents spend most of their time at school (Proctor et al., 2011).

Education should not be one-dimensional but should be aimed at the whole child as an individual, with a focus on nurturing the individual child's unique qualities and virtues as well as his or her inner integrity and harmony (Gill, as cited in Green & Norrish, 2013). Scientific research which emphasises the importance of enhancing well-being in education, and the increased focus on the development of the child as a whole is growing steadily.

Increased levels of well-being for learners within the school environment is related to improved social, emotional and academic capabilities as well as reduced symptoms of depression, anxiety and stress (Green & Norrish, 2013).

Where the main aim of academic institutions used to be academic excellence, there has been a shift whereby schools are acknowledging the need to develop school learners in a more holistic way. By focusing on well-being, schools are aiming to assist learners to flourish psychologically, socially and academically (Green et al. as cited in Green & Norrish, 2013).

Educational psychology is shifting from a deficit focused service delivery towards more positive and preventative models with emphasis on the strengths of pupils, schools and families (Chafouleas & Bray, as cited in Green & Norrish, 2013). Positive psychology in schools acknowledges the value of promoting holistic well-being, and aims to increase school learners and educational staff's well-being and resilience as well as to support the specific needs of learners (Green & Norrish, 2013). Positive psychology interventions are used to enhance mental health and empower educational staff and learners at schools (Shoshani & Steinmetz, 2014). School-based positive psychology interventions (PPIs) are initiatives which aim to enhance well-being, and to build competence and strengths within school settings.

Sin and Lyubomirsky (2009) state that PPIs in schools must meet three criteria. Firstly, the PPI must have an approach which aims to build positive factors as opposed to solely focusing on the reduction of negative factors. Secondly, the PPI should be implemented with learners at school rather than in other settings. Thirdly, the PPI should be evaluated post-intervention, using valid and reliable research designs and measures.

Research on the effects of PPIs on both individual interventions implemented in classes and whole school initiatives has yielded positive results with regard to school learner well-being, academic outcome, school climate and teacher well-being (Shankland & Rosset, 2015). Positive psychology can be implemented into the school setting, explicitly through

structured programmes or PPIs, or implicitly through practices that support the principles of positive psychology across various areas of school life.

The majority of research into school-based positive psychology have focused on explicit PPIs or programmes (Green & Norrish, 2013). PPIs can be conducted as single-component PPIs which focus on one key construct such as hope or gratitude or multiple-component PPIs which integrate several key positive psychology mechanisms into a comprehensive approach (Green & Norrish, 2013). Regardless of the potential of PPIs there is a required degree of expertise to incorporate them into school settings, and this may involve certain costs for schools.

For PPIs to be implemented into a school setting, a certain amount of commitment is required from school administrators and teachers, giving of their own time and resources. Some schools may be reluctant to do this, and thus teachers and schools may dismiss PPIs because they are too complicated (Shankland & Rosset, 2015). There are, however, brief PPIs which may encourage schools and teachers, especially those less familiar with positive psychology, to potentially implement positive education. Brief PPIs can be implemented in the classroom setting without extensive need for time, material or expertise (Shankland & Rosset, 2015).

PPIs yield positive academic and well-being outcomes. Shankland and Rosset (2015) discuss four PPI domains which relate to these outcomes, namely *mindfulness, character strengths, gratitude* and *positive relationships*. The term *mindfulness* refers to the awareness which arises from deliberately paying attention to the present moment without judgement (Shankland & Rosset, 2015). The efficacy of mindfulness has been demonstrated for a variety of psychological and physical ills, including depression, chronic pain, eating disorders and substance abuse (Shankland & Rosset, 2015). The term *character strengths* refers to intrinsically valued ways of behaving, thinking and feeling which promote well-being,

positive relationships and successful goal achievement (Shankland & Rosset, 2015). Positive psychology promotes using one's own strengths in a new way which assists with the enhancement of one's well-being (Shankland & Rosset, 2015). A classroom climate is closely related to learners' well-being and academic outcomes (Shankland & Rosset, 2015). Perseverance, self-regulation, prudence, social intelligence and hope are found to be the strongest correlations between positive classroom behaviours and character strengths (Shankland & Rosset, 2015). The effects of strengths interventions on well-being include feeling validated and appreciated which increase self-esteem and self-efficacy beliefs (Shankland & Rosset, 2015). *Gratitude* is feeling thankful and joyful in response to receiving a gift, whether of tangible benefit or peaceful bliss (Emmons, as cited in Shankland & Rosset, 2015). Individuals who are grateful experience higher levels of life satisfaction, optimism and vitality as well as decreased depression and envy (Shankland & Rosset, 2015). Studies that look at the potential benefits of deliberate gratitude reveal various positive outcomes on individual and collective well-being as well as benefits on academic variables such as school satisfaction and academic achievement. Gratitude also contributes to social bonding and relationship maintenance (Shankland & Rosset, 2015). Within school settings, *positive relationships* include cooperation and supportive interactions within and between teachers and school learners. These positive social relationships have the capacity to improve both individual well-being and collective well-being in schools, which can assist in improving school learner's ability to learn and problem solving (Shankland & Rosset, 2015).

The four PPI domains discussed above can be brought into the classroom through brief PPIs. Brief PPIs can be put into place by individual teachers, carried out by one or several teachers in the school, be easily integrated into existing curriculums, put into place without administrative red tape, does not require extensive time or special training to be implemented, does not require special materials, can be used and adapted for different age

groups, can be used with students in different school systems and are aimed at fixing the positive instead of focusing on weaknesses (Shankland & Rosset, 2015; Sin & Lyubomirsky, 2009).

Up to now, brief PPIs have been used in schools in North-America, Europe and Australia. Guidelines for the steps necessary to implement brief PPIs of the four domains mentioned above into school settings have been outlined by Shankland and Rosset (2015) and Morgan, Gulliford and Kristjánsson (2014). It is important to review positive psychology interventions, both complex PPIs and brief PPIs, to allow the school and educators to make a constructive decision as to what is best to be incorporated into their school system. Brief PPIs may be of extreme benefit for schools in South Africa who are characterised by a lower economic status. It is, therefore, important to review and understand positive psychology and different ways in which it can be incorporated into the South African school system.

Problem Statement

The youth of today face a complex future, one of environmental degradation, global warming, famine, poverty, health pandemics, population explosion, terrorism, increased natural disasters as well as other environmental and social issues (Waters, 2011). The stress and complexity are taking their toll on the mental health of the youth (Waters, 2011). For the youth in South Africa, these global stress factors are accompanied with various other challenges which are faced on a daily basis including: unemployment, substandard education, poor living conditions, low morale, substance misuse, risky sexual behaviour, bullying, violence, insufficient access to health care, as well as various other factors which may impede their mental and physical well-being (Cape Mental Health, 2012). It is, therefore, important to equip the youth with skills necessary to build resilience and hope in order to uplift them from mental illness, and to also build their strengths and well-being. It is of great necessity to

equip the youth with higher order cognitive, social and emotional skills to allow them to prosper and connect meaningfully with their communities (Waters, 2011).

School plays an increasingly important role in assisting the youth with the development of their cognitive, social and emotional skills. Hence, schools are asked to incorporate a new paradigm into the education system, with PPIs as a core component, to assist with the development of school learners through their social, emotional, moral and intellectual development (Waters, 2011). Therefore, the following research questions have guided the research study: *What conclusions may be drawn from literature on the effectiveness of positive psychology interventions (PPIs) within the school setting?* More specifically: a) *What are the effects of PPIs within the school setting?* b) *Are PPIs useful within underdeveloped school settings?* c) *Would PPIs be effective if implemented within the South African education system?*

Aim

The aim of this study (a critical review) is to provide readers with a comprehensive account of positive psychology interventions (PPIs) and the effectiveness thereof within the school setting by reviewing what has been investigated in literature on PPIs within the school setting up to this point in time. The evidence will provide information on how positive psychology is incorporated into schools, the effectiveness of PPIs and programmes and the relatedness thereof to school learner well-being and academic performance. Thereafter suggestions will be made for the future use of PPIs in education, whether they should be incorporated and how they can be best incorporated into South African schools.

Method of Investigation

Approach and Design

A critical review does not merely describe the articles selected for review, but incorporates a degree of conceptual innovation and analysis through analysing, synthesising

and presenting data from diverse materials (Grant & Booth, 2009). A critical review was used for this study. Through a critical review the writer aimed to demonstrate that extensive research of literature had been conducted and the quality thereof critically evaluated (Grant & Booth, 2009). The critical review implemented in this research study followed the five steps described by Carnwell and Daly (2001). These steps included defining the purpose of the review, defining the scope for the review, identifying the sources of relevant information for the review, reviewing the literature, writing the review and applying the literature to the study. The critical review evaluated what was of value from previous bodies of work, how PPIs was developed, how PPIs were best implemented in schools and attempted to resolve some competing schools of thought through critical evaluation. An examination was made of vocabulary associated with the literature of PPIs in schools, meaning that if different or new terminology emerged which differed from proposed keywords used, this was then included.

Defining the purpose of the review. The purpose of the critical literature review was to critically appraise and synthesise the current state of knowledge, and provide a comprehensive account of PPIs and their effectiveness, specifically within the school setting. This was achieved by reviewing what had been investigated and written about PPIs in the school setting up to this point in time. The findings might be of assistance to schools and educators who would like to dip their toes in positive psychology within the South African school setting.

Defining the scope of the review. The scope of the review included existing knowledge in empirical and theoretical works of literature published in scholarly journals and university dissertations/theses about various PPIs previously implemented, how these interventions had been implemented and the effectiveness of these interventions. To be included in the study, literature had to have been published between the timeframe of 1998 (the forefront of positive psychology) and 2018. The studies had to follow Sin and

Lyubomirsky's (2009) definition for PPIs, whereby they should not only focus on reducing negative factors but also aim to cultivate positive feelings, positive behaviours or positive cognitions. The interventions had to be implemented in a school setting with learners (regardless of school grade, system or location), and the evaluation of the PPI(s) had to be conducted by using valid and reliable research designs and measures (Sin & Lyubomirsky, 2009). Interventions which were not specifically defined as being PPIs but aimed to build up positive factors such as well-being and any treatment methods or activities aimed at cultivating positive feelings, positive behaviours or positive cognitions were also included in the study. However, these studies had to be published in English and be full text peer-reviewed articles/theses/dissertations. Excluded from the search were non-peer-reviewed studies, conference proceedings and studies published in languages other than English.

Identifying and selecting sources. In identifying and selecting sources the researcher used keywords to conduct computerised searches of published literature (Carnwell & Daly, 2001). Appropriate literature was retrieved from the following databases: ScienceDirect, Google Scholar, Academic Search Premier, SocINDEX with Full Text, CINAHL with Full Text, MasterFILE Premier, Health Source: Nursing/Academic Edition, PsycARTICLES, PsycINFO, EBSCOhost, MEDLINE and JSTOR journals. Keywords included in the search were 'positive psychology in schools', 'school-based interventions' and 'school-based positive psychology interventions'. Keywords and search terms were combined or modified using Boolean search, such as AND, NOT and OR in order to further produce more relevant results. For example, 'positive psychology AND school intervention' OR 'positive school intervention' OR 'school-based interventions' OR 'learner interventions'. A North-West University librarian was consulted to assist in the process. Literature found provided the reviewer with other keywords that could be used to expand the search which included names of authors who had published works associated with the research topic. The search was

performed independently by the primary reviewer (master's student), while the second reviewer (study leader) monitored the review process and acted as a co-analysis of extracted data. As there are no formal requirements to present methods of search, synthesis and analysis within a critical review (Grant & Booth, 2009), a simple analytical framework similar to SALSA (Search, AppraisaL, Synthesis and Analysis) was used to examine the effectiveness of PPIs in schools and how it was presented in the literature.

Reviewing the literature. Critical literature reviews lack formal requirements and a structured approach of reviewing publications. In this study, once the primary list of studies had been gathered during the search phase, these were evaluated and assessed (Puks, 2016). Appraisal was done manually by reading through the identified literature. The appraisal was conducted using the inclusion/exclusion criteria. These had been defined during the review proposal, and could be done based on the abstract and the title alone. If the abstract were not clear as to how the literature adhered to the inclusion criteria, the full papers were analysed to appraise which literature should be included (Puks, 2016). It was also necessary to ensure the quality of the primary studies, which assessed and evaluated the inclusion and exclusion criteria, guided the interpretation of findings and provided recommendations for further research. Three aspects were reviewed in the process of appraisal, namely systematic error, internal validity and applicability (Puks, 2016). Once the literature had been appraised, the primary reviewer selected the studies which fitted into the inclusion criteria. The reviewer then proceeded with the final two phases, synthesis and analysis, which dealt with analysing the selected literature, drawing conclusions from them and categorising the findings by extracting relevant data from the collected literature (Puks, 2016).

Data analysis began with the reviewer reading which involved a preliminary skim of abstracts and the main body of literature providing insights into what had been done, how it had been done and why it had been done (Carnwell & Daly, 2001). This allowed the reviewer

to find gaps in research and identify themes within literature, bringing forth structure to the critical literature review.

Data extraction involved reading the full-text of each article and extracting pertinent information, including author(s), publication dates, journals or books, research designs and methodologies as well as themes and codes which would answer the research questions. Inclusive extraction was utilised whereby all eligible data was extracted and included into a data sheet to avoid omitting findings valuable to the synthesis (Noyes & Lewin, 2010).

The review was enhanced by synthesising evidence from the research, whilst looking for evidence for effectiveness of interventions. Both an aggregative and interpretative synthesis were utilised. Data extraction was an iterative process, as the reviewer moved between reading articles, data extraction, analysis and synthesis in several cycles as themes and questions emerged from the synthesis (Noyes & Lewin, 2010). The reviewer then used the six steps presented in thematic analysis as described by Clarke and Braun (2013) to analyse and synthesise definitions and implementation information of PPIs in schools.

Thematic analysis involved the identification of patterns and themes in the data for adequate interpretation and understanding of meaning. Through reading and re-reading the data, underlying themes and topics were discovered and coded (Clarke & Braun, 2013). The steps included familiarising oneself with the data, coding, searching for themes, reviewing themes, defining and naming themes, and writing up the report (Clarke & Braun, 2013). First, the reviewer actively read through the literature to become familiar with the depth and breadth of the content. The researcher then took notes and made ideas for coding which were used in the following phases. The second phase was the generation of the initial codes which encompassed basic segments of the data and then assessed meaningfully regarding PPIs in schools. The coding was done manually with some highlighters and post-it notes with comments. Phase three encompassed the search for themes, whereby the codes were sorted

into potential themes. Mind maps and tables were used to collate relevant coded data extracts into potential themes and sub-themes. For the fourth phase, the reviewer reviewed and refined the themes, ensuring that data within themes cohered together meaningfully with clear distinctions between themes. Thereafter, the themes were defined, further refined and named by analysing the data and identifying the essence of each theme. A detailed analysis was written for each theme and sub-theme. Once the themes had been fully established, the final phase involved the final analysis and writing of the report. All of these steps tell the complicated story of the data in a way that convinces the reader of its merit and validity, capturing the essence of the points being demonstrated (Clarke & Braun, 2013).

Writing the review and applying the literature to the study. The results and findings of each reviewed literature publication were presented clearly, consistently, coherently, logically, non-repetitively and interestingly in alignment with the aims of the research (Puks, 2016). Visual methods were used where appropriate, such as a table. It was necessary for the researcher to read the primary studies entirely, allowing them to gain an idea of the publication entirely (Puks, 2016). When reading the entire literature publication, the researcher asked questions relating to the clarity of the study and results, what methodology should be used and what the main findings were (Puks, 2016). These factors guided the researcher as the literature was reviewed. For the analysis, in the final report, a discussion was provided, interpreting the findings as well as speculating on their significance in further research in the field. A summarising paragraph concluded the final report, defining the findings of the research as well as any gaps or weaknesses (Puks, 2016).

Ethics

This research (a critical review) did not deal with participants or implement interventions; it utilised secondary or existing data from primary studies. Therefore, ethical considerations regarding participants were not applicable. The main focus was to find, select,

analyse, synthesise and interpret literature in an ethically responsible way. The ethical responsibility of a critical review involves following the process of rigour throughout the research process (see rigour). Ethical guidelines were ensured by following guidelines set out by Wager and Wiffen (2011). The critical review and the work within were done solely by the authors who have been acknowledged to increase transparency of the research (Wager & Wiffen, 2011).

The first and primary reviewer (writer) is registered as a master's student (Miss Jamie-Lee Dormehl) within the MA/MSc Research Psychology Programme at the North-West University. Furthermore, the writer has undergone the necessary ethical training as required by the North-West University. The second reviewer is Dr Werner de Klerk (the study leader) who assisted in monitoring the critical review process of the primary reviewer as well acted as the co-analyst of the data. Dr De Klerk has experience in the critical review process as well as thematic analysis. The final report avoided redundancy and will not be published in multiple publications (Wager & Wiffen, 2011).

The primary reviewer (writer) ensured that plagiarism was avoided, and the works of other authors were referenced both in-text and in a reference list following the reference guidelines of the American Psychological Association 6th Edition. There is no support or funding for the critical review; therefore, the reviewer is neutral and not influenced by competing interests (Wager & Wiffen, 2011). Accuracy of the research process was ensured, and because the reviewer did not attempt to slant the findings in a particular direction, data extraction will be accurate throughout the process (Wager & Wiffen, 2011). The reviewer conducted the critical review with rigour, understanding the responsibility of transparency and honesty of data and interpretation.

Rigour

Rigour is imperative in a study to ensure that high levels of accuracy and thoroughness are demonstrated in the various phases of research, including theory development, designing and executing the study, reporting the results and findings, and drawing the conclusions (Gnyawali & Song, 2016). The researcher ensured (through great care and attention to detail) that credibility, confirmability and transferability were attained throughout the research process (Sharts-Hopko, 2002).

Credibility

Confidence in the truth was ensured by the reviewer that the findings represented plausible information from the original literature, and the correct interpretations were made of the various authors' views (Anney, 2014). The following strategies were adopted by the reviewer: *Prolonged engagement* with the literature by immersing fully into the literature in order to gain insight into the context of the study and allowing for a greater understanding of the context of literature. *Transferability* of the data to other contexts through thick description of findings. *Reflexivity* through taking detailed notes and journaling. And *Peer examination* whereby the reviewer discussed the process and findings with the second reviewer and neutral colleagues in order to ensure authority of the reviewer and structural coherence (Anney, 2014; Sharts-Hopko, 2002).

Confirmability

This was achieved by adequate information being reported, from the research question and data collection methods, through raw data, and analysing and interpreting findings (Sharts-Hopko, 2002). As described, the critical review followed the steps as set out by Carnwell and Daly (2001). The critical review was carefully planned (see methodological approach), data was collected through the rigorous searches of search engines, published literature that met the inclusion criteria was included in the pool of data, full texts were read

and all data related to the research question were included in a data sheet for further thematic analysis. The sources from which data was attained were well described and fully cited once attainment had occurred, enabling the reader to locate each included source.

Transferability

This was achieved by thoroughly and consistently following the critical review and thematic analysis process as well as describing the applicable context of each included published literature for the readers to determine how the findings could apply to their own situations, implementing PPIs or further research (Sharts-Hopko, 2002).

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SECTION 2: ARTICLE

Positive psychology interventions in schools: A critical review

Guidelines for authors: *Journal of Psychology in Africa*

This article will be submitted for possible publication in *Journal of Psychology in Africa*. Thus, there will first be a summary of the author guidelines for this specific journal, followed by the article.

Instructions for Authors

Manuscripts

Manuscripts should be written in English and conform to the publication guidelines of the latest edition of the American Psychological Association (APA) publication manual of instructions for authors. Manuscripts can be a maximum of 7 000 words.

Submission

Manuscripts should be prepared in MS Word, double spaced with wide margins and submitted via e-mail to the Editor-in-Chief at the following address: elias.mpofu@sydney.edu.au. Before submitting a manuscript, authors should peruse and consult a recent issue of the *Journal of Psychology in Africa* for general layout and style.

Manuscript Format

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

- *Title:* this should be brief, sufficiently informative for retrieval by automatic searching techniques and contain important keywords (preferably <13).

- *Author(s) and address(es) of author(s):* The corresponding author(s) must be indicated. The author's/authors' respective address(es) where the work was done must be indicated. An e-mail address, telephone number and fax number for each corresponding author must be provided.
- *Abstract:* Articles and abstracts must be in English. Submission of abstracts translated into 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 – data source, participants, design, measures, data analysis; Results – key findings, implications, future directions; and Conclusions – summary in relation to the research questions and theory development. For all other contributions (except editorials, book reviews and special announcements), the abstract must be a concise statement of the content of the paper. Abstracts must not exceed 150 words. The statement of the abstract should summarise the information presented in the paper but should not include references.
- *Text:* (1) Per APA guidelines, only one space should follow any punctuation; (2) Do not insert spaces at the beginning or end of paragraphs; (3) Do not use colour in text; and (4) Do not align references using spaces or tabs; use a hanging indent.
- *Tables and figures:* These should contain only information directly relevant to the content of the paper. Each table and figure must include a full, stand-alone caption, and each must be sequentially mentioned in the text. Collect tables and figures together at the end of the manuscript or supply as separate files. Indicate the correct placement in the text in this form <insert Table 1 here>. Figures must conform to the journal's style. Pay particular attention to line thickness, font and figure proportions, taking into account the journal's printed page size – plan around one column width (82 mm) or two column widths (170 mm). For digital photographs or scanned images, the resolution should be at least 300 dpi

for colour or greyscale artwork and a minimum of 600 dpi for black line drawings. These files can be saved (in order of preference) in PSD, PDF or JPEG format. Graphs, charts or maps can be saved in AI, PDF or EPS format. MS Office files (Word, PowerPoint, Excel) are also acceptable but DO NOT EMBED Excel graphs or PowerPoint slides in an MS Word document.

Referencing

Referencing style should follow the latest edition of the APA manual of instructions for authors.

- *References in text:* References in running text should be quoted as follows: (Louw & Mkize, 2012), or (Louw, 2011), or Louw (2000, 2004a, 2004b). All surnames should be cited the first time the reference occurs, e.g., Louw, Mkize, and Naidoo (2009) or (Louw, Mkize, & Naidoo, 2010). 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 submitted 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/authors' surname(s) and initial(s), 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/authors' surname(s) and initial(s), 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:

Journal Article

Peltzer, K. (2001). Factors at follow-up associated with adherence directly observed therapy (DOT) for tuberculosis patients in South Africa. *Journal of Psychology in Africa, 11*(2), 165–185.

Book

Gore, A. (2006). *An inconvenient truth: The planetary emergency of global warming and what we can do about it*. Emmaus, PA: Rodale.

Edited Book

Galley, K. E. (Ed.). (2004). *Global climate change and wildlife in North America*. Bethesda, MD: Wildlife Society.

Chapter in a Book

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 (Eds), *Handbook of psychotherapy and religiosity diversity* (pp 369–396). Washington, DC: American Psychological Association.

Newspaper Article (Signed)

Landler, M. (2007, June 2). Bush's greenhouse gas plan throws Europe off guard. *New York Times*, p. A7.

Unpublished Thesis

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.

Conference Paper

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.

Article

Running Head: PPIs IN SCHOOLS

Positive psychology interventions in schools: A critical review

Jamie-Lee Dormehl

*Werner de Klerk

School of Psychosocial Health, Community Psychosocial Research (COMPRES), North-West University, South Africa.

Corresponding author: Werner de Klerk*,

School of Psychosocial Health, COMPRES, North-West University,

Private Bag X6001, Potchefstroom 2520, Internal Box 206

E-mail: 12998699@nwu.ac.za

Telephone: +27182991725; or Fax: +27182991730

Abstract

Positive psychology interventions (PPIs) within the school setting are used to improve mental health and well-being of learners and educators. This is in alignment with the need for schools to acknowledge learners in a more holistic way, assisting learners to flourish psychologically, socially and academically. Although there is plenty research and publications on PPIs in schools, this study has performed a critical review of literature of studies of PPIs in schools in order to synthesise findings and allow for a clearer empirical understanding of this phenomenon. The research aimed to determine the effectiveness of PPIs in schools, the usefulness in underdeveloped settings and whether PPIs would be effective if implemented in South Africa. For this critical literature review, computerised searches were conducted on various databases for peer-reviewed scientific literature which had implemented PPIs in schools. A method similar to SALSA (Search, AppraisaL, Synthesis and Analysis) was used for the search and analysis processes. A final sample of 18 published works was included into this critical review. The data was analysed thematically, and the following themes were identified for the effectiveness of PPIs in school settings: Intrapersonal well-being; Interpersonal well-being; Feeling happy; Enjoy, engage, and excel at school; and Context of PPIs reviewed. The study concluded that PPIs were indeed effective in various settings as well as some in underdeveloped settings, and following the right guidelines would be effective if implemented in South Africa.

Keywords: positive psychology interventions, schools, learners, well-being, critical review.

Introduction

The purpose of this article (a critical review) is to present a comprehensive account of positive psychology and its effectiveness specifically within the school setting, by reviewing what has been investigated and written until this point in time on positive psychology interventions (PPIs) in the school setting. There is a great deal of literature on positive psychology as a topic (see Froh, 2004; Gable & Haidt, 2005; Jørgensen & Nafstad, 2005; Linley, Joseph, Harrington, & Wood, 2006; Seligman & Csikszentmihalyi, 2000) as well as published articles with a focus on positive psychology in schools (see Galloway & Reynolds, 2015; Green & Norrish, 2013; Sin & Lyubomirsky, 2009; Waters, 2011). However, there is a need for findings to be synthesised to allow for clearer empirical understanding of this phenomenon. The focus on PPIs in schools is motivated by the need for intervening positively in the education system, specifically in South Africa. Education, particularly in rural South Africa and previously disadvantaged areas, is characterised by several challenges causing it to lag behind previously advantaged areas (Bojuwoye, Moletsane, Stofile, Moolla, & Sylvester, 2014; Mashau, Steyn, Van der Walt, & Wolhuter, 2008).

South African School Context

South Africa is faced with numerous challenges if it is to be competitive in the outside world (Duma & Buthelezi, 2014). South Africa's education crisis is well-documented and there is a widespread dissatisfaction with the education system (Paxton, Christie, & Jacklin, 2015) as well as the feeling that the education system is substandard and perhaps the weakest link in the chain which is tasked with the upliftment of society to the appropriate placing in the world of the 21st century (Wolhuter, 2014). Burke (as cited in Bloch, 2012) states that 60-80% of South African schools are dysfunctional, achieving poor education outcomes, and it is largely rural and poor learners who suffer, with half of all learners dropping out of school.

It is important to note, however, that the crisis of education in South Africa is not only

prevalent in rural schools, but also in urban schools with very low achievement levels (Gardiner, 2008; Klein, 2017). Therefore, it is the quality of education in South Africa that is a huge stumbling block towards transformation in South Africa (Gardiner, 2008; Klein, 2017). South Africa's education system was ranked 75th out of 76 countries worldwide (The Economist, 2017). Research done on education in South Africa shows that learners' scores are far below what is expected at all levels within the schooling system in relation to other countries as well as in relation to the South African curriculum (Letseka, 2013), indicating that South Africa has one of the worst education systems in the world (The Economist, 2017). It is, therefore, clear that there is a crisis in the whole of the South African education system, but the crisis is more serious among learners in rural schools (Gardiner, 2008).

Apart from the severe inequality in the attainment of education and the lack of trained educators and quality of education in South Africa, various other factors require attention to uplift the education system as well (Liu, Tian, Huebner, Zheng, & Li, 2015). Some scholars believe that, although substantial attention is paid to learners' academic achievements, it is important to pay attention to the evaluations that learners have of their schooling and their emotional experiences in school, because a good education should be concerned with a learner's academic learning and subjective well-being (SWB) which consist of three interrelated components, namely school satisfaction and positive (relaxed, proud, positive or happy) and negative emotions (sad, angry or gloomy) experienced at school. With the current lagging education system in South Africa, learners' SWB will not be entirely met; therefore, it is important to work towards creating ways to positively enhance learners' SWB through quality education and various interventions. Although the status of education, particularly in South Africa, is somewhat saddening, various interventions have proven to be effective in assisting schools to develop an efficient system of education, learning and teaching resulting in the production of learners who have acquired knowledge, skills and attitudes, which, in

turn, make provision for further education, training and work beyond the years of schooling (Duma & Buthelezi, 2014).

Positive Psychology Interventions (PPIs) in Schools

Positive psychology is a relatively new branch of psychology which conducts the scientific enquiry into factors assisting individuals, communities and organisations to thrive by building on their strengths and virtues (Waters, 2011). Although positive psychology is a young movement and research is still building in this field, there is a growing body of research which supports the notion that identifying and developing children's strengths could have profound long-term benefits (Galloway & Reynolds, 2015). The emphasis of positive psychology on well-being, flourishing, character, meaning and virtue aligns strongly with the ethos of whole school learner learning development in the 21st century (Waters, 2011). Well-being is an important aspect of school life, and human flourishing should be the core aim of education (Gill, as cited in Green & Norrish, 2013).

While previously the main aim of academic institutions has been academic excellence, there has been a shift whereby schools are acknowledging the need to develop school learners in a more holistic way. The focus is now on well-being with the aim to assist school learners in flourishing psychologically, socially and academically (Green et al., as cited in Green & Norrish, 2013). Educational psychology is shifting from a deficit-focused service delivery towards more positive and preventative models that focus on the strengths of school learners, schools and families (Chafouleas & Bray, as cited in Green & Norrish, 2013). Positive psychology can be implemented into the school setting explicitly, through structured programmes or PPIs, or implicitly through practices that support the principles of positive psychology across various areas of school life (Green & Norrish, 2013). PPIs are programmes, practices and treatment methods or activities that are aimed at cultivating positive feelings, positive behaviours and positive cognitions (Sin & Lyubomirsky, 2009).

According to Sin and Lyubomirsky (2009), PPIs must meet three criteria. Firstly, the PPI must have an approach which aims to build positive factors as opposed to solely focusing on the reduction of negative factors. Secondly, the PPI should be implemented with school learners at school rather than in other settings. Thirdly, the PPI has to be evaluated post-intervention by using valid and reliable research designs and measures. Research on the effects of PPIs on both individual interventions implemented in classes and whole-school initiatives has yielded positive results regarding student well-being, academic outcome, school climate and teacher well-being (Shankland & Rosset, 2015).

Problem Statement

Today our youth are faced with a future of complexities which includes various environmental and social issues such as poverty, health pandemics, environmental degradation, global warming, terrorism, rapidly increasing population, increased natural disasters and various other issues (Waters, 2011). The stress and complexity are taking their toll on the mental health of the youth (Waters, 2011). In South Africa, this stress is coupled with daily challenges such as unemployment, substandard education, poor living conditions, low morale, substance misuse, risky sexual behaviour, bullying, violence and inadequate access to health care, with many factors that could hinder their mental and physical well-being (Cape Mental Health, 2012). It is, therefore, important to equip the youth with skills necessary to build resilience and hope in order to uplift them from mental illness, and to build their strengths and well-being. It is of great necessity to equip the youth with higher order cognitive, social and emotional skills to allow them to prosper and connect meaningfully with their communities (Waters, 2011). School plays an increasingly important role in assisting the youth with the development of cognitive, social and emotional skills. Therefore, schools are asked to incorporate a new paradigm into the education system, with PPIs as a core component, to assist with the development of the school learners through social, emotional,

moral and intellectual development (Waters, 2011). Therefore, the following research questions have guided the research study: *What conclusions may be drawn from literature on the effectiveness of positive psychology interventions (PPIs) within the school setting?* More specifically: a) *What are the effects of PPIs within the school setting?* b) *Are PPIs useful within underdeveloped school settings?* c) *Would PPIs be effective if implemented within the South African education system?*

Method

For the present review (a critical review), appropriate literature was retrieved from the following databases: ScienceDirect, Google Scholar, Academic Search Premier, SocINDEX with Full Text, CINAHL with Full Text, MasterFILE Premier, Health Source: Nursing/Academic Edition, PsycARTICLES, PsycINFO, EBSCOhost, MEDLINE and JSTOR journals. The search was independently performed by the primary reviewer (first author), while the second reviewer (second author) monitored the review process and acted as a co-analyst of extracted data. As there are no formal requirements to present methods of search, synthesis and analysis within a critical review (Grant & Booth, 2009), a simple analytical framework similar to SALSA (Search, AppraisaL, Synthesis, and Analysis) was used to examine the effectiveness of PPIs in schools and how it was presented in the literature.

The following keywords were used in the search: ‘positive psychology in schools’, ‘school-based interventions’ and ‘school-based positive psychology interventions’. Boolean operators such as AND, OR and NOT were also used to help clarify the search. A North-West University librarian was consulted to assist in the process. Literature found, provided the primary reviewer with other keywords that could be used to expand the search, including names of authors who had published works associated with the research topic.

Studies were included if they were entries from 1998 (when positive psychology began) up to 2018; full-text, peer-reviewed articles/theses/dissertations; written in English; followed Sin and Lyubomirsky's (2009) definition for which PPIs should aim to cultivate positive feelings, positive behaviours or positive cognitions and not only focus on reducing negative factors; had to be implemented with learners in a school setting (regardless of school grade, system or location); and the PPI had to be evaluated using valid and reliable research designs and measures (Sin & Lyubomirsky, 2009). Interventions were also included which were not defined as PPIs but aimed to build up positive factors such as well-being and any treatment methods or activities aimed at cultivating positive feelings, positive behaviours or positive cognitions.

The search initially yielded 1 146 studies of which 18 were finally included. Figure 1 presents the search strategy approach and inclusion/exclusion criteria. Table 1 provides a summary of the data extracted.

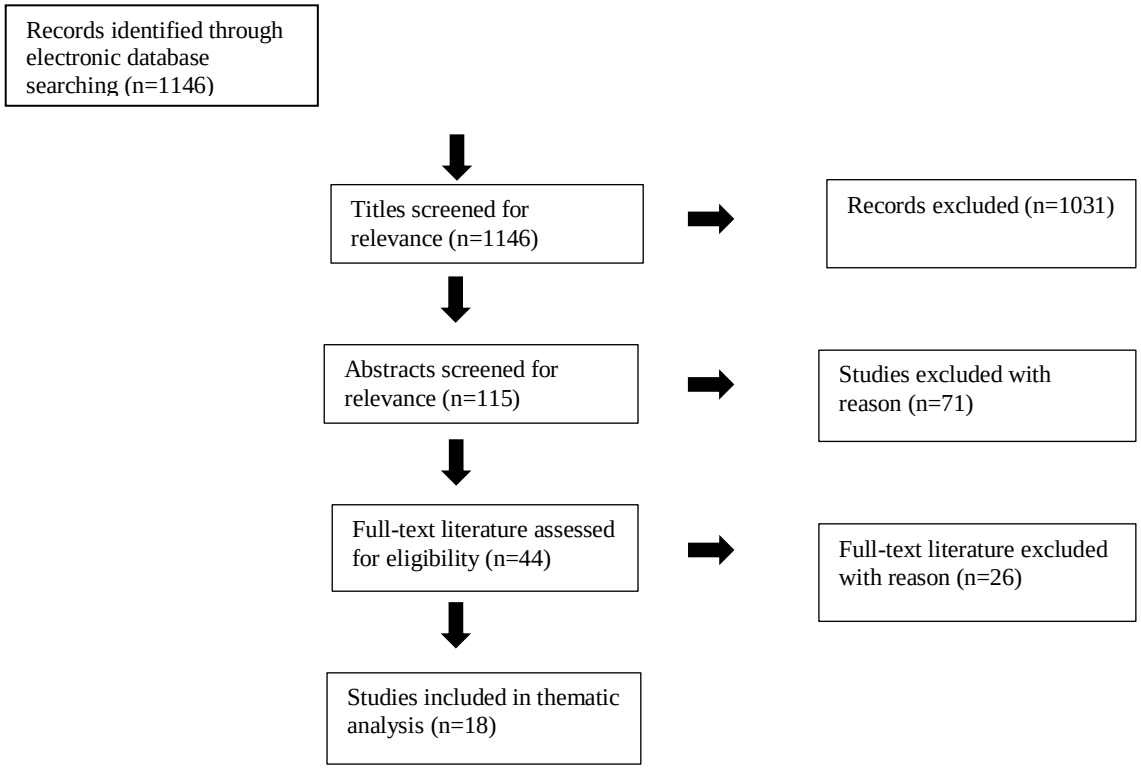


Figure 1. Search Flow Chart

Table 1

Summary of Data Extracted

Author(s) and Title	Details of the Positive Psychology Intervention	Sample (dependant variable)	Results / Findings	Other
Boniwell, Osin, & Martinez (2016). Teaching happiness at school: Non-randomised controlled mixed-methods feasibility study on the effectiveness of personal well-being lessons.	*Aim:* Evaluate the efficacy of a new school programme for the promotion of happiness and well-being skills in adolescence according to the subjective well-being perspective. The intervention consisted of 18 bi-weekly Personal Well-Being Lessons (50 min each) administered by teachers to groups of learners at one intervention school throughout the school year. The control school learners received lessons focused on a general health education curriculum and not on psychological aspects. *Design:* Non-randomised, pre-test and post-test repeated measures design with a control group. Pre-test was administered in the beginning of September and post-test was administered at the end of June. *Measures:* Students' Life Satisfaction Scale (SLSS)/ Multidimensional Students' Life Satisfaction Scale (MSLSS)/ Positive and Negative Affect Schedule for Children (PANAS-C)/ One-to-one, in-depth semi-structured interviews. *Context:* Middle schools in South East London, United Kingdom (Grade 7).	Non-randomised sample (n=164). Intervention n=96 and control n=68 learners. Semi-structured interviews collected data from 4 learners, 2 teachers and the principal of the intervention school.	Thematic analysis resulted in 3 main themes and several sub-themes regarding the participants' experiences of Personal Well-Being Lessons. These included: Explicit Learning (strategies, subject learning, and uniqueness); Psychological Outcomes (self-awareness, awareness of others, personal transformation, intrinsic interest) and Challenges (internal challenges, external challenges). Quantitative data effects reflect a deterioration of well-being indicators: satisfaction with self, satisfaction with family, satisfaction with school, satisfaction with friends, positive and negative affect indicators deteriorated in the control group, paralleled by decrease in satisfaction with family, school and positive affect in the intervention group. Learners in the intervention group did not experience such a strong decrease in satisfaction with self, satisfaction with friends, positive affect and such an increase in negative affectivity as the control group.	*Conclusion:* The qualitative data shed light on explicit learning, psychological outcomes and challenges associated with the programme. Personal Well-Being Lessons curriculum was efficient in maintaining a positive affect balance and higher satisfaction with self and with friends in middle-schoolers throughout the school year. *Limitations:* Limited by the lack of randomisation, unobserved factors and potential biases.
Caprara, Kanacri, Zuffiano, Gerbino, & Pastorello (2015). Why and how to promote adolescents' prosocial behaviors: Direct, mediated and moderated effects of the CEPIDEA school-based programme.	*Aim:* Examine the effect of a school-based intervention programme (incorporated into education practices) called Promoting Prosocial and Emotional Skills to Counteract Externalizing Problems in Adolescence (Italian acronym CEPIDEA) designed to promote prosocial behaviours. Prosocial sessions (16 in total) were delivered once a week during school hours by the project's research staff in collaboration with teachers (teachers in the intervention attended seven training sessions). *Design:* Experimental pre-test, post-test design with assessments at three different times (i.e., pre-test, post-test at 6 months and follow-up at 18 months). *Measures:* peer-reported measures - prosocial behaviour	The sample (n=291) learners (aged 12-13). Intervention n=151 and control n=140.	Learners in the intervention group showed an increase in prosocial behaviour, interpersonal self-efficacy beliefs and agreeableness, and a decrease in physical aggression and verbal aggression. Learners obtained higher grades than the control group at the end of middle school. Those who benefited most from the intervention were those with lower normative development of prosocial behaviour, low initial level of agreeableness and high initial level of physical aggression.	*Conclusion:* These findings suggest that interventions aimed at promoting prosocial behaviours, while having the potential to support positive outcomes, may also counteract or redirect negative trajectories of functioning. With a curriculum that is gradually incorporated into routine educational practices, the major personal determinants of prosocial behaviour during adolescence are addressed as vehicles of positive change. *Recommendations:* Effects of the programme stress the importance of (a) utilising a conceptual model for behavioural change in guiding interventions designed to promote prosociality during adolescence, and (b) ensuring that opportunities are provided for enabling adolescents' potential for prosocial responses to actually become

Author(s) and Title	Details of the Positive Psychology Intervention	Sample (dependant variable)	Results / Findings	Other
	and physical and verbal aggression; self-reported measures - interpersonal self-efficacy beliefs and agreeableness; academic achievement – academic school scores. *Context:* Middle schools in Genzano, Italy (Grade 7).			behaviours.
Carter et al. (2018). Happy thoughts: Enhancing well-being in the classroom with a positive events diary.	*Aim:* Investigate the effects of a PPI for school children by means of a positive daily diary. Across 2 studies (S1 & S2) experimental participants wrote down 3 positive events that happened daily, reflecting on why these have occurred. For one week, 30 minutes a day. *Design of S1:* Pre-test and post-test design. Happiness and depression were examined at baseline with 1-week and 3-month follow-ups. *Design of S2:* Stepped-wedge cluster design; when formal control group is not appropriate, it allows for control phase to compare. Control group identical diary, but noted any 3 things that had happened in the day. *Measures in S1:* Faces Scale/ The Oxford Happiness Questionnaire Short Form (OHQ-SF)/ The Centre for Epidemiological Studies Depression Children's Scale (CES-DC). *Measures in S2:* Faces Scale/ CES-DC/ Children's Attributional Style Questionnaire (CASQ-R). *Context:* Primary schools in North-Wales (Grades 5-6).	*S1:* Learners (n=606) (aged 9-11) from 15 primary schools in Gwynedd and Anglesey, North Wales. *S2:* Learners (n=72) (37 in experimental n=37) (aged 8-11) from 3 primary schools in Gwynedd, North Wales.	*Both Studies:* Positive events diary resulted in significant increases in self-reported happiness and decreases in depressive symptoms. The impact remained at 3-month follow-up.	*Conclusions:* Children are receptive to PPIs, and using the diary intervention to replay positive experiences boosts well-being. The PPI had good ecological validity whereby diaries were easy to produce and simple to follow. Teachers received instruction and administered it during school hours. The PPI was easy to implement; an agile, light-touch intervention, foreseeably delivered via smartphone-enabled technology as an 'app'. *Limitations:* S1 limited by use of stepped-wedge design rather than including an independent control group. In S1, the least happy children benefitted most from the diary. However, the tertile with the greatest well-being actually demonstrated a reduction in happiness scores following the intervention, questioning the universal value of this diary exercise.
Davies (2015). The effect of a positive psychology intervention on psychosocial well-being among a group of early adolescents.	*Aim:* Determine the effects of a PPI on the well-being of a group of adolescents. Sessions were scheduled as 4 half-hour weekly sessions, including a 5 min loving, kindness meditation and intervention for the specific week. Week 1: gratitude enhancing activities; Week 2: creating positive emotion in the present via savouring and kindness activities; Week 3: signature strengths intervention; Week 4: optimism intervention.	Systematic random sample learners (n=95) (age 12-13), experimental n=44 and control n=51.	Significant decreases in pathology: anxiety and depression at post-test and follow-up for experimental group. Psychological well-being remained unchanged. No changes in well-being were found.	*Recommendations:* Longer PPIs may produce greater and more enduring gains in well-being. Motivation to integrate positive education for enhancing well-being into the school curriculum. *Limitations:* Limited by lack of random sampling, small sample size, not representative of SA population, self-report measures.

Author(s) and Title	Details of the Positive Psychology Intervention	Sample (dependant variable)	Results / Findings	Other
	Design: Quantitative study using quasi-experimental design, included pre-test, post-test at 1-week and 5-week intervals. *Measures:* Demographic questionnaire/ The Mental Health Continuum Short-Form (MHC-SF)/ Revised Children's Anxiety and Depression Scale - short version (RCADS-SV). *Context:* Middle school in South Africa (Grade 7).			
Diebel, Woodcock, Cooper, & Brignell (2016). Establishing the effectiveness of a gratitude diary intervention on children's sense of school and belonging.	*Aim:* Evaluate the effectiveness of a gratitude diary intervention to increase the levels of the sense of school belongingness (SoSB). SoSB involves commitment to school, belief that school is important and a positive perception of relations between the teacher-learner, with peers and opportunities to be involved in school life. Intervention was carried out ten 10 minutes in the afternoon every school day for 4 weeks: 20 diary entries. *Design:* Case study design, pre-test, post-test intervention. Data collected 2 days before the intervention and on the last day of the intervention. *Measures:* The Belonging Scale/ Gratitude to school questionnaire/ Information was also collected on participants' gender and eligibility of free school meals (FSM) (an indicator of socio-economic disadvantage). *Context:* Primary schools in Southampton, United Kingdom (Grades 3-6).	Learners (n=100) (aged 7-11) from one class per year group. Participants within each year were randomly allocated to either a gratitude diary ("w*rite down 2 or 3 things that you are thankful or grateful for today at school"*) or an event diary condition (*"write down 2 or 3 things that happened in school today")*.	Gratitude diary intervention had a beneficial effect on gratitude and SoSB for the intervention group and decreases were found for the control group. Changes in gratitude scores correlated with changes in SoSB scores. Only males showed a significant increase in gratitude scores following the gratitude diary intervention.	*Conclusions:* Straightforward, low-cost and low-resource intervention that can be used by school staff to increase learners' gratitude towards school and potentially promote school belonging. The gratitude diary was an intervention which could potentially to be used at the whole-school level as well as class, small group and individual. *Limitations:* No longitudinal follow-up; the fact that the gratitude diary intervention and the control intervention were occurring in the same classes could have been an issue if participants became aware that they were in different groups.
Foret et al. (2012). Integrating a relaxation response-based (RR) curriculum into a public high school in Massachusetts.	*Aims:* Examine feasibility and effectiveness of RR-based curriculum integrated into the school day. The curriculum included didactic instruction, relaxation exercises, positive psychology and cognitive restructuring. Implemented through eight 45-minute sessions co-taught over 4weeks by 2 BHI trainers. Learners were instructed to practise RR at home for 10-15 minutes. *Design:* Pre-test, post-test design.	Non-randomized: Learners (n=745). Control n=44 10th graders and intervention n=42 11th graders.	The intervention group showed significantly greater improvements in levels of perceived stress, state anxiety and health-promoting behaviours (stress management) when compared to the wait list control group. The intervention was most effective amongst girls.	*Recommendations:* It is necessary to tailor the intervention to each school instead of applying a one-size-fits-all model. Therefore, it is recommended that the RR curriculum be truly integrated into the school's curriculum. *Limitations:* Generalisability of findings is limited due to the homogeneity and size of the sample and multicomponent nature of the sample, and all findings are self-report findings.

Author(s) and Title	Details of the Positive Psychology Intervention	Sample (dependant variable)	Results / Findings	Other
	Measures: Perceived Stress Scale (PSS)/ State-trait Anxiety Inventory- Form Y (STAI-Y)/ Health-promoting Life-style Profile-II (HPLP-II)/ Rosenberg Self-esteem Scale (RSE)/ Locus of Control (LOC). *Context:* High school in Massachusetts, USA (Grades 10-11).			
Gigantesco et al. (2015). A universal mental health promotion programme for young people in Italy.	*Aim:* Evaluate the effectiveness of a mental health promotion programme of which the aim is to promote self-efficacy, psychological well-being (PWB) and life satisfaction. Establishing goals and problem solving: Structured 6-step problem solving in classroom during regular school hours - 1h/wk. for 20 hours in total. Implemented by psychologist/pedagogist of school (trained by researchers – 6-hour one-day training session). It also provided information about the nature of major mental disorders. *Design:* Pre-test, post-test design. *Measures:* The Regulatory Emotional Self-Efficacy (RESE) scales/ The Satisfaction With Life Scale (SWLS) /Ryff's Psychological Well-Being Scale (PWBS). *Context:* High schools in Italy (Grades 9-11).	Snowball sampling technique: Learners (n=308) (aged 14-18) from 18 classrooms of 9 Italian high schools. Pre-test n=391 (programme n=221 and control n=170). Post-test after 2 months – learners n=308.	Significant improvement in overall SWB (particularly in dimensions of environmental mastery, self-acceptance and autonomy) and satisfaction with life. Self-efficacy in regulating negative emotions and purpose in life improved in the intervention group, although not significantly.	*Conclusions:* Cost-effective programme which requires few resources and no outside personnel, and can be carried out during regular school hours. *Limitations:* The follow-up period should have been extended.
Jerusalem & Hessling (2009). Mental health promotion in schools by strengthening self-efficacy.	*Aim:* Review two interventions (Self-Efficacious Schools – SESC and Fostering Self-Efficacy and Self-Determination in class – FOSS) aimed at promoting self-efficacy (school and social) in learners. Activities were integrated into normal lessons by teachers. *Design:* Longitudinal pre-test, post-test design. *Measures:* Evaluation was done by using standardised questionnaires adopted at the beginning and end of each year for a 3-year period. *Context:* Middle schools in Germany (Grade 7).	Multi-component non-randomised controlled studies learners (n=921). SESC – 10 pilot schools. FOSS – 17 project schools with experimental and control classes.	Social self-efficacy was enhanced by establishing a positive class climate where learners supported one another, and teachers were transparent and sensitive to individual needs. Mental health was strengthened by means of systematically improving the quality of teaching and learning at school.	*Recommendations:* Teachers must be enabled and encouraged to apply such strategies, and be ready to change their habitual teaching routines to try out new and innovative teaching methods. These complex demands require additional comprehensive measures for successful implementation comprising organisational changes.

Author(s) and Title	Details of the Positive Psychology Intervention	Sample (dependant variable)	Results / Findings	Other
Ohl, Fox, & Mitchell (2013). Strengthening socio-emotional competencies in a school setting: Data from the Pyramid project.	*Aim:* Examine the efficacy of a primary school-based intervention, the Pyramid project, in strengthening children's socio-emotional competencies. *Design:* 2 x 2 mixed model design group (intervention group vs. comparison group) x 2 time points (pre- vs. 12-weeks post-intervention) with repeated measures on the time factor to investigate the impact of the Pyramid Year 3 intervention. *Measures:* Strength and Difficulties Questionnaire (SDQ-T4-16). *Context:* Primary schools in the United Kingdom.	Learners (n=375) from seven schools (aged 7–8) (102 intervention n=102 and comparison n=273).	Improved the socio-emotional health of vulnerable children through promoting positive outcomes as well as reducing socio-emotional deficits. Significant decreases in emotional symptoms, peer problems and an increase in prosocial behaviours overtime.	*Conclusion:* These findings further support the inclusion of a salutogenic approach in promoting children's socio-emotional well-being. Development of socio-emotional competencies is key to children's successful social interaction at home and at school. *Limitations:* Limited by having only teachers as evaluators.
Proctor et al. (2011). Strengths Gym: The impact of a character strength-based intervention on the life satisfaction and well-being of adolescents.	*Aim:* Evaluate the outcomes of the 'Strengths Gym' programme on the life satisfaction and well-being of adolescent students. This PPI is based on the entire VIA classification of character strengths. *Design:* Quasi-experimental treatment-control condition design. *Measures:* Students' Life Satisfaction Scale (SLSS)/ Positive and Negative Affect Schedule (PANAS)/ Rosenberg Self-Esteem Scale (RSE). *Context:* High schools in Channel Islands and Cheshire, United Kingdom (Grades 8-9).	A convenience sample of adolescent learners n=319 (aged 12-14) (M.12.98): intervention n=218 and control n=101.	Significant increases in life satisfaction for intervention group compared to the control group. The intervention group had high scores on PA and self-esteem, and lower scores on NA.	*Conclusions:* In general, results of this study show that regular participation in character strengths-based exercises has a positive impact on life satisfaction among adolescents. *Recommendations:* Future studies should examine the effects of the programme on a larger scale across more schools and classrooms. It should occur over an entire school year, randomly assigned classes from separate year groups should participate, longitudinal studies over three years are necessary, and should include objective measures as well as self-reported measures.
Roth, Suldo, & Ferron (2017). Improving middle school students' subjective well-being: efficacy of a multi-component positive psychology intervention targeting small groups of youth.	*Aim:* Investigate the impact of the PPI on learners' mental health (SWB and symptoms of internalising and externalising forms of psychopathology). PPI was carried out 50 mins/d for 10 weeks: small group meetings to learn strategies to facilitate gratitude, kindness, character strengths, savouring, hope and optimism. 2 months following PPI, 2 follow-up sessions to review all PPI targets. Parent component: 1-hr psycho-educational session at onset of PPI and weekly written correspondence. *Design:* Longitudinal pre-test, post-test design. Baseline assessment, post-test 1 week after PPI and follow-up 5	Learners n=42 (mean age 11.8): intervention n=21 and waitlist control n=21.	Learners who participated enjoyed the intervention. Significant increases in all dimensions of SWB (positive and negative affect and life satisfaction) at post-intervention and positive affect at follow-up (2 months after PPI).	*Limitations:* Small sample size, low participation rate, could not do 3rd follow-up session due to clash with school year-end activities, and parent component could have been strengthened. *Recommendations:* To address gaps in the literature future research on multitarget PPIs for youth should involve trying to maximise and maintain positive effects by including key stakeholders such as parents, and providing follow-up sessions after intervention termination.

Author(s) and Title	Details of the Positive Psychology Intervention	Sample (dependant variable)	Results / Findings	Other
	and 7 weeks after the PPI. *Measures:* Demographic information/ Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS)/ Students' Life Satisfaction Scale (SLSS)/ Positive and Negative Affect Scale for Children (PANAS-C)/ Brief Problem Monitor for Youth (BPM-Y). *Context:* Middle schools in Canada (Grade 7).			
Ruini et al. (2009). School intervention for promoting psychological well-being in adolescence.	*Aim:* Evaluate the efficacy of a new school programme for the promotion of psychological well-being and optimal human functioning in adolescence according to the eudaimonic perspective (well-being consists of fulfilling one's potential in a process of self-realisation). Derived from WBT, the intervention consisted of six 2-hour sessions performed in the class, and involved psycho-education, cognitive-behavioural techniques and Ryff's model of psychological well-being. *Design:* Experimental longitudinal pre-test, post-test and a 6-month follow-up with the same measurements. *Measures:* Symptom Questionnaire (SQ)/ PWBS/ Revised Children's Manifest Anxiety Scale (RCMAS). *Context:* High school in Northern Italy (Grades 9-10).	Nine randomly assigned classes, learners n=227. Intervention (5 classes) n=129 learners and placebo (4 classes) n=98 learners.	Significant increases in psychological well-being (particularly personal growth) compared to the attention placebo group. Intervention was also effective in decreasing distress (particularly anxiety and somatisation). Decreased anxiety was maintained in the follow-up.	*Conclusions:* The novelty of this school protocol is that a specific psychotherapeutic technique for improving psychological well-being has been translated in an educational intervention and tested for the first time. *Recommendations:* Future research with larger samples and longer follow-ups are necessary to confirm the efficacy of this intervention in improving psychological well-being and decreasing adolescents' distress.

Author(s) and Title	Details of the Positive Psychology Intervention	Sample (dependant variable)	Results / Findings	Other
Seligman, Ernst, Gillham, Reivich, & Linkins (2009). Positive education: Positive psychology and classroom interventions.	*Aim:* Examine two different programmes for schools: The Penn Resiliency Program (PRP) and the Strath Haven Positive Psychology Curriculum (PPP). PRP: A widely researched programme to prevent depression in adolescents. The programme aims to increase learners' ability to handle day-to-day stressors and problems. It promotes optimism and teaches skills. PPP: Positive psychology curriculum to assist learners in identifying their strengths and increase the use of these strengths in their daily lives. Curriculum consisted of approximately 20–25 80-minute sessions delivered over the 9th grade year. *Design for PRP:* Most studies used randomised control design. *Design for PPP:* Longitudinal pre-test, post-test design. *Measures for PRP:* Various measures. *Measures for PPP:* Learners, their parents and teachers completed standard questionnaires (measuring learners' strengths, social skills, behavioural problems, enjoyment of school and grades) before the programme, after the programme and through two years of follow-up. *Context:* PRP - 17 studies have evaluated PRP conducted in diverse samples of adolescents from a variety of racial and ethnic backgrounds, community settings and countries (e.g. United States of America, United Kingdom, Australia, China and Portugal). PPP - High school learners from the USA (Grade 9).	*PRP:* 17 studies have evaluated PRP in comparison to control group. *PPP:* Randomly assigned: 347 learners to Language Arts classes which contained the positive psychology curriculum (Positive Psychology Condition) or did not contain the positive psychology curriculum (Control).	*PRP:* Reduces and prevents symptoms of depression, reduces hopelessness, prevents clinical levels of depression and anxiety, reduces and prevents anxiety, and may reduce behavioural problems. *PPP:* Increased engagement in learning, enjoyment of school and achievement; improved social skills.	PRP: Works equally well for children of different racial/ethnic backgrounds, training and supervision of group leaders are critical. *Recommendations:* Better effects may be obtained through combining the PRP and positive psychology programmes, or through more intensive interventions.
Shoshani & Slone (2017). Positive education for young children: Effects of a positive psychology intervention for preschool children on subjective well-being and learning behaviours.	*Aim:* Examine the effects of a PPI (the Maytiv preschool programme) on children's SWB, mental health and learning behaviours. The programme focuses on 4 elements of the PERMA model with activities for enhancement of positive emotions, engagement, positive relationships and achievement. The PPI occurred for 1 year, data was collected in 2 waves: 1st in September 2016 at the beginning of the	Randomly assigned preschool learners (n=315) (aged 3-6.5) from 12 classrooms. Control n=160 and intervention n=155.	Significant increases in subjective well-being, positive emotions (no change in negative emotions), empathy, prosocial behaviour, positive learning behaviours and children's self-report of life satisfaction among the intervention participants with no significant changes in the control group. Children's age was positively related to higher	*Conclusions:* Administered by preschool teachers, trained and guided in the elements of the intervention, the Maytiv programme was constructed as an integrative intervention that applies to children with varying needs and from diverse backgrounds. This research is unique in being the first efficacy study of a positive psychology programme for preschool children worldwide. *Limitations:* No evaluation of teachers, effects may be due

Author(s) and Title	Details of the Positive Psychology Intervention	Sample (dependant variable)	Results / Findings	Other
	school year and 2nd in June 2017 at the end of the school year. *Design:* Experimental pre-test and post-test design. *Measures for learners:* PANAS-C/ BMSLSS/ Affective Situations Test for Empathy (FASTE)/ The Head-to-Toes Task (HTKS) *Measures for parents:* The Parent Version of the PANAS-C-P/ Strengths and Difficulties Questionnaire (SDQ) *Measures for preschool teachers:* Approaches to Learning Scale. *Context:* Preschool classes in Northern Israel.		subjective well-being and lower mental health problems at the beginning of the study.	to Hawthorne effect, absence of active control group, no longitudinal follow-up implemented.
Shoshani & Steinmetz (2014). Positive psychology at school: A school-based intervention to promote adolescents' mental health and well-being.	*Aim:* Evaluate effectiveness of a Maytiv positive psychology school-based intervention aimed at enhancing mental health and empowering the entire educational staff. Teachers were trained with textbooks in fifteen 2-hour sessions for one year. Learners were trained by teachers in the same structure over one year. *Design:* In a 2-year longitudinal quasi-experimental repeated measures design, the study assessed pre- to post-test modifications in psychological symptoms and distress, and in targeted well-being factors that were promoted in the experimental but not in a wait-list control condition. *Measures:* Demographic data questionnaire/ Brief Symptoms Inventory (BSI)/ RSE/ The General Self-Efficacy Scale/ SWLS/ The Life Orientation Test-Revised (LOT-R). *Context:* Two whole middle schools in the Centre of Israel (Grades 7-9).	Learners n=1038 (aged 11.8-14.7) (intervention n=537 and control n=501) and teachers n=80.	Significant decreases in general distress, anxiety and depression symptoms among the intervention participants, whereas symptoms in the control group increased significantly. The intervention significantly strengthened self-esteem, self-efficacy (control group decreased) and optimism, and reduced interpersonal sensitivity symptoms.	*Conclusions:* The effects were examined on learners from various socio-demographic backgrounds. Demographic risk factors of poverty and a single-parent household affected initial levels of mental health symptoms and symptoms over the two academic years. The intervention was effective in producing a significant improvement in mental health in high-risk and low-risk learners. This model differs from targeted interventions that focus on specific behaviours, emotions or specific aspects of positive psychology which is believed to be why it allowed achieving the wide variety of positive outcomes. *Limitations:* The study relied on self-report measures (potential biases). *Recommendations:* Further research is necessary to ascertain generalisability to other schools, age cohorts and contexts.

Author(s) and Title	Details of the Positive Psychology Intervention	Sample (dependant variable)	Results / Findings	Other
Shoshani, Steinmetz, & Kanat-Maymon (2016). Effects of the Maytiv positive psychology school programme on early adolescents' well-being, engagement and achievement.	*Aim:* Determine effects of the Maytiv programme effects on social well-being (SWB) indices (life satisfaction, positive and negative emotions and peer relations), school engagement (emotional, cognitive and behavioural engagement) and school achievement (grade point average scores). The Maytiv curriculum includes eight primary components reflecting the PERMA model's determinants of well-being translated into practice through stories, exercises, discussions and activities over 15 intervention sessions (90 minutes each every two weeks). The programme involves two parallel positive psychology curricula: one for teachers and one for learners. The teacher lesson precedes the lesson they are trained to deliver the following week. *Design:* Repeated measure experimental intervention design. Two-year longitudinal design compared learners in intervention to learners in control at 4 time points: 1) before, 2) 9 months after programme 3) 8 months after programme ended/ 17 months from time 1, and 4) 1 year post-intervention/ 21 months from time 1. *Measures:* Socio-demographic measure/ SWLS/ Positive and negative affect schedule (PANAS)/ Friends subscale of the school adjustment report/ School engagement survey/ School achievement assessed by grade point average (GPA) scores/ Attendance data from school records. *Context:* Middle schools in the centre of Israel (grades 7-9).	Randomised controlled trial consisting of learners n=2 517 from 70 classrooms from six schools. Teachers (n=70) participated. Intervention (classrooms n=35, learners n=1 255) control (classrooms n=35, learners n=1255).	Findings revealed positive intervention effects on positive emotions, emotional SWB, peer relations, emotional engagement, cognitive engagement and GPA scores. Control group showed a decrease in emotional WB and academic engagement, no changes in others.	*Conclusions:* The Maytiv programme was developed as an integrative intervention that could cater to children from diverse backgrounds and with varying needs: multicultural applicability. Teachers delivered the programme because they were natural facilitators of change with the greatest potential in school to influence their learners. The programme effects were discernible a year after its completion, indicating that the learners had internalised the programme content, leading to behavioural changes with prolonged effects. *Limitations:* Schools volunteered to participate, process of randomisation occurred at classroom level, study did not evaluate effects on teachers, many self-report questionnaires were used, positive effects might be due to Hawthorne effect, factors outside intervention could have impacted learners' WB. Intervention sessions were lengthy, religious stories used in the programme might not be appropriate in other countries or cultures.
Suldo, Savage, & Mercer (2013). Increasing middle school students' life satisfaction: Efficacy of a positive psychology group intervention.	*Aim:* Evaluate the effectiveness of a 10-week group wellness promotion intervention developed from prior applications of positive psychology research and implemented during school hours. Learners with low life satisfaction scores were selected to improve these learners' mental health. *Design:* Pre-test, post-test design. Baseline assessment, post-intervention and 6-month follow-up.	Randomly assigned learners n=55 (mean age 11.43), intervention n=28 and wait-list control n=27.	Intervention was associated with learner enjoyment of the intervention and simultaneous increases in global life satisfaction for intervention group.	*Limitations:* School psychologists and doctoral students in psychology facilitated the programme with the use of a 78-page manual with details for each intervention. *Recommendations:* In future, this study should be replicated with a larger, more diverse sample size and include parents/teachers, follow-up meetings or evaluate if the intervention could be implemented by teachers.

Author(s) and Title	Details of the Positive Psychology Intervention	Sample (dependant variable)	Results / Findings	Other
	Measures: BMSLSS/ SLSS/ PANAS-C/ Youth Self-report form of the Child Behavior Checklist (YSR). *Context:* Primary school learners in South Florida, USA (Grade 6).			
Zents, Fisk, & Lauback (2017). Paws for intervention: Perceptions about the use of dogs in schools.	*Aim:* Assess learner and faculty perceptions on having a therapy dog in their school while also examining their perceived efficacy of the therapy dog in promoting students' well-being. Therapy dogs had been working in the schools for 3.5-6 years. *Design:* Non-experimental research design. *Measures:* Semi-structured interviews and questionnaires aimed at gaining perceptions of the effectiveness of therapy dogs in schools. *Context:* Rural schools in Western New York, USA (Kindergarten-High School/ Career & Tech).	Semi-structured interviews with learners n=35 (preselected by school's psychologist), 2 school psychologists, 3 school counsellors and 1 special education teacher. Questionnaire participants included 196 learners n=196 and faculty members n=105.	Research suggests that therapy dogs were used successfully to increase well-being, decrease depression, fear and anxiety assisting students with social, emotional, and behavioural issues and well-functioning learners and staff as well as being used for a wide range of activities that take place in schools which have contributed to an improved school climate as well as individual functioning.	*Limitations:* Limited to a general education setting, by sample of learners identified by the faculty and by potential biases of mental health staff when discussing their work with dogs. Finally, the study was limited by examining perceptions without the use of control groups.

Analysis and Synthesis

Inclusive extraction was utilised whereby all eligible data was extracted and included onto a data sheet to avoid omitting findings valuable to the synthesis (Noyes & Lewin, 2010). The review was enhanced by synthesising evidence from the research, whilst looking for evidence for effectiveness of interventions. Aggregative and interpretative synthesis methods were utilised. Data extraction was an iterative process, as the reviewers continuously moved between reading articles and data extraction, analysis and synthesis in several cycles as themes and questions emerged from the synthesis (Noyes & Lewin, 2010).

Findings and Discussion

The following themes emerged from the included studies: intrapersonal well-being; interpersonal well-being; feeling happy; enjoy, engage and excel at school; and context of PPIs reviewed. These themes and related studies are discussed below.

Theme 1: Intrapersonal Well-being

The intrapersonal dimension of learner well-being incorporates aspects of well-being which are manifested in one's internalised sense of self and one's capacity to function within one's school community (Fraillon, 2004). Ten studies describe aspects of intrapersonal well-being as some of the effects of their selected PPIs (Boniwell et al., 2016; Caprara et al., 2015; Gigantesco et al., 2015; Jerusalem & Hessling, 2009; Roth et al., 2017; Ruini et al., 2009; Seligman et al., 2009; Shoshani & Slone, 2017; Shoshani & Steinmetz, 2014; Zents et al., 2017). Intrapersonal well-being is distinguished by its specific attention to one's self and identity across the developmental trajectory - who one is, has been and will be. Attaining an intrapersonal aspect of well-being entails having one's 'reality' recognised and respected by valued members of the school community (Soutter, O'Steen, & Gilmore, 2013). One study was effective in increasing *individual functioning* (Zents et al., 2017) and another *increased the individual's mental health* (Jerusalem & Hessling, 2009). Three studies were successful in

increasing learner well-being, including studies by Roth et al. (2017), and Shoshani and Slone (2017) whereby all aspects of *subjective well-being* (positive and negative affect and life satisfaction) increased for learners, and the study implemented by Ruini et al. (2009) whereby *psychological well-being* increased for learners.

Important measurable dimensions of intrapersonal well-being, which manifested from the PPIs, included autonomy, emotional regulation and resilience, self-efficacy and self-esteem.

Autonomy. The intervention implemented by Gigantesco et al. (2015) indicated an increase in learners' autonomy. An individual is autonomous when his or her behaviours are performed willingly, the individual fully endorses the actions in which he or she takes part and the values expressed by him- or herself (Fraillon, 2004). It demonstrates the degree of internal locus of evaluation, for successfully evaluating him- or herself and his or her needs (Fraillon, 2004). Autonomous learners are able to monitor themselves and their behaviours, such as when it is necessary to ask for assistance from their teachers or peers, and when and how to function successfully with others. They are able to self-regulate and evaluate their plans independently of social pressure (Fraillon, 2004).

Emotional regulation and resilience. Through regulation and resilience, learners demonstrate the ability to be open to and regulate feelings in themselves and others, promoting personal understanding and growth. Learners' emotional responses are of the appropriate type and magnitude. Emotional regulation and resilience were seen in the effects of four interventions (Boniwell et al., 2016; Caprara et al., 2015; Seligman et al., 2009; Zents et al., 2017), although in various ways. The intervention by Boniwell et al. (2016) increased learners' personal growth and transformation. Learners demonstrated resilience and were able to cope with internal and external challenges (Boniwell et al., 2016). Learners demonstrated decreased behavioural problems in studies conducted by Zents et al. (2017) and Seligman et

al. (2009), and learners in another study demonstrated decreased physical and verbal aggression (Caprara et al., 2015).

Self-efficacy. Three studies found their interventions to be effective in increasing learners' self-efficacy (Caprara et al., 2015; Jerusalem & Hessling, 2009; Shoshani & Steinmetz, 2014). Self-efficacy encompasses the degree to which someone believes he or she is able to organise, execute and adapt strategies necessary to meet desired outcomes (Fraillon, 2004). Self-efficacy beliefs are positively associated with school performance, both in terms of accuracy of learners' judgements about their own capacity as well as increased persistence and perseverance. Learners with high levels of self-efficacy feel increased confidence in their capacity to manage academic and social tasks they encounter (Fraillon, 2004). Self-efficacy assists individuals with turning their beliefs into reality and are related to key factors of academic motivation. School learners with higher self-efficacy demonstrate increased levels of participation, involvement, persistence and coping with difficulties and challenges compared to learners who doubt their abilities (Shoshani & Steinmetz, 2014).

Self-esteem. The study by Shoshani and Steinmetz (2014) was effective in increasing self-esteem which is a broader construct of the self-concept, as it deals with an individual's cognitive beliefs about him- or herself. One studied PPI demonstrated increases in self-acceptance (Gigantesco et al., 2015) and another effects of self-awareness (Boniwell et al., 2016), both of which were encompassed by self-esteem. Self-esteem and self-acceptance deal with the way in which individuals feel about themselves and are regarded as fundamental to constructs of intrapersonal well-being. Individuals in Shoshani and Steinmetz's (2014) control group demonstrated decreases in self-esteem and self-efficacy. Other important measurable dimensions of intrapersonal well-being which manifested from the PPIs included aspects related to: empathy, acceptance and connectedness.

Theme 2: Interpersonal Well-being

Interpersonal dimensions of learner well-being are evident through an individual's interactions with or responses to others. It is manifested in the learners' appraisal of their social circumstances and their capacity to function in a school community (Fraillon, 2004). Positive psychology interventions may increase interpersonal well-being of learners by allowing them to experience a sense of place within the physical and socio-cultural context of the school (Soutter et al., 2013). Interpersonal well-being is increased by learners having access to spaces, their cultural affiliations acknowledged and celebrated, and beliefs and ideologies freely expressed and openly received (Soutter et al., 2013). Learners require the ability to engage effectively and socialise meaningfully with community members both within the school setting and outside in other spheres of the community.

Seven of the selected studies on PPIs in schools demonstrated the ability to benefit learners and improve some aspect of their interpersonal dimension of well-being (Boniwell et al., 2016; Diebel et al., 2016; Ohl et al., 2013; Shoshani et al., 2016; Shoshani & Slone, 2017; Shoshani & Steinmetz, 2014; Zents et al., 2017). Learners in two studies demonstrated a general increase in interpersonal well-being through increased socio-emotional health and well-being (Ohl et al., 2013; Shoshani et al., 2016).

Empathy. Learners may demonstrate cognitive and/or affective empathy. Cognitive empathy allows learners to understand the thoughts and feelings of others, and through affective empathy learners respond with the same emotion to another person's emotion (Fraillon, 2004). The PPI implemented in Shoshani and Slone's (2017) study demonstrated increases in learners' empathy and effectively reduced interpersonal sensitivity symptoms in the intervention group.

Acceptance. Found in learners' beliefs about fundamental goodness of others, it includes interpersonal values of respect, tolerance and understanding (Fraillon, 2004). High

levels of acceptance are demonstrated through learners' positive attitudes with their peers, teachers and other members of the school community (Fraillon, 2004). Learners from one study displayed increases in the awareness of others (Boniwell et al., 2016) which enabled them to consider their personal needs and those of their peers (Ohl et al., 2013). The effects of interventions from four studies increased learners' prosocial behaviour (Diebel et al., 2016; Ohl et al., 2013; Shoshani & Slone, 2017; Shoshani & Steinmetz, 2014). Learners who participated in Zents et al.'s (2017) intervention were able to deal with social issues. Learners in the intervention implemented by Caprara and colleagues demonstrated enhanced agreeableness, emotional engagement and interpersonal self-efficacy beliefs (Caprara et al., 2015).

Connectedness. It refers to the awareness of being in close relationships with the social world. Learners' connectedness is represented by the number, range and quality of social relationships, and is demonstrated by successful, purposeful relations with peers, teachers and members of the school community (Fraillon, 2004). One study improved the social skills of learners who had participated in the intervention (Seligman et al., 2009) and another PPI improved learners' peer relations and social engagement (Shoshani et al., 2016). The effects of one intervention demonstrated enhanced interpersonal relationships (Shoshani & Steinmetz, 2014) and in Ohl and colleagues' (2013) study, learners in the intervention demonstrated decreases in peer problems.

Theme 3: Feeling Happy

Happiness has been described as the equilibrium between positive and negative affect (Davies, 2015). Positive emotions increase school satisfaction and engagement of learners, and enable new opportunities for learning, increased learning motivation and academic efforts (Shoshani et al., 2016). Because mental health is seen as positive functioning and well-being as well as the absence of mental illness, measurements for depression and

depressive symptoms have been included in many of the studies. It is necessary for studies on the effectiveness of PPIs wishing to improve well-being to include activities which buffer against psychopathology and view happiness multi-dimensionally (Davies, 2015). Interestingly, individuals with higher levels of depression tend to benefit more from PPIs (Sin & Lyubomirsky, 2009). Important measurable dimensions, which manifested from PPIs, included aspects related to increased positive affect and life satisfaction and decreased negative affect.

Positive affect (PA). PA is the reflection of one's pleasurable engagement with their environment (Watson, Clark, & Carey, 1988). High levels of PA are reflected by an individual's levels of enthusiasm, interest, joy and determination whereas low levels of PA are reflected by one's levels of fatigue and lethargy (Watson et al., 1988). One experiences trait PA as a corresponding predisposition which is is effective in the production of positive emotional experiences and reflects a sense of well-being (Watson et al., 1988).

Ten of the selected studies on the effectiveness of PPIs in schools found that learners in the intervention groups demonstrated increases in their levels of subjective well-being through increased positive affect and positive emotions (Caprara et al., 2015; Jerusalem & Hessling, 2009; Proctor et al., 2011; Roth et al., 2017; Ruini et al., 2009; Shoshani & Slone, 2017; Shoshani & Steinmetz, 2014; Shoshani et al., 2016; Suldo et al., 2013; Zents et al., 2017). One study intervention group demonstrated increased optimism (Shoshani & Steinmetz, 2014) and another study increased self-reported happiness (Carter et al., 2018). Learners from the intervention group of yet another study demonstrated increased gratitude, whereas learners from the control group displayed a decrease in gratitude (Diebel et al., 2016). Gratitude arises from helping others and recognition of past, present or future benefits received. It is a process which involves awareness and appreciation of positive aspects in life (Diebel et al., 2016). Gratitude contributes to psychological and social well-being by

increasing positive affect and life satisfaction and decreasing negative affect (Emmons & McCullough, 2003).

Negative affect (NA). It includes a broad range of negative mood states, including stress, fear, anxiety, hostility, scorn and disgust (Watson et al., 1988) as well as mood states related to depression, such as sadness and loneliness. At a trait level, NA is a predisposition to experience negative emotions which influence cognition, self-concept and world view (Watson et al., 1988).

Three studies successfully decreased negative affect for learners in the intervention groups (Proctor et al., 2011; Roth et al., 2017; Seligman et al., 2009) while another study decreased emotional symptoms (Ohl et al., 2013). Two studies effectively improved health promoting behaviours of learners in the intervention group, such as stress management and decreased perceived levels of stress (Foret et al., 2012; Shoshani & Steinmetz, 2014). One study assisted learners with successfully dealing with their emotional issues (Zents et al., 2017). Learners' abilities to be open to feelings, regulate themselves and others in order to promote personal understanding and growth were enhanced (Fraillon, 2004).

Five studies were successful in decreasing depression (Carter et al., 2018; Davies, 2015; Seligman et al., 2009; Shoshani & Steinmetz, 2014; Zents et al., 2017) and another five were successful in decreasing anxiety (Davies, 2015; Ruini et al., 2009; Seligman et al., 2009; Shoshani & Steinmetz, 2014; Zents et al., 2017). One study decreased state anxiety specifically (Foret et al., 2012), a second study decreased fear in intervention participants (Zents et al., 2017), a third study decreased somatisation (Ruini et al., 2009) and yet another decreased hopelessness (Seligman et al., 2009). Decreasing pathology in learners increases their overall well-being (Davies, 2015).

Life satisfaction. This aspect can be described as feelings which result from reasonable progress of goals while motivation to reach a goal may cause further satisfaction

(Talebzadeh & Samkan, 2011). Effective factors within satisfaction include mental evaluation of a problem, judgement about it and the manner of performing an activity in the past or present (Talebzadeh & Samkan, 2011). Feelings are also effective in the creation of life satisfaction (Talebzadeh & Samkan, 2011), since life satisfaction is the degree to which an individual is happy with his or her life and him- or herself (Shoshani & Slone, 2017). Learners from four study intervention groups experienced increased life satisfaction (Gigantesco et al., 2015; Proctor et al., 2011; Roth et al., 2017; Shoshani & Slone, 2017) and another study found increases specifically within global life satisfaction (Suldo et al., 2013).

Theme 4: Enjoy, Engage and Excel at School

Findings from PPIs implemented in eight of the selected studies were successful in increasing enjoyment, engagement and academic achievement of learners in the intervention groups within in their school settings (Boniwell et al., 2016; Caprara et al. 2015; Diebel et al., 2016; Ruini et al., 2009; Seligman et al., 2009; Shoshani et al., 2016; Shoshani & Slone, 2017; Zents et al., 2017).

Enjoyment. The study conducted by Zents and colleagues (2017) assisted in creating an improved school climate for learners in the intervention group. Another study by Seligman and colleagues (2009) increased learners' enjoyment of school, and another increased learners' sense of school belongingness (Diebel et al., 2016).

Engagement. Learners from two studies concerning the effectiveness of PPIs demonstrated a sense of school belonging (Diebel et al., 2016; Shoshani et al., 2016) which increased learners' engagement in their schools. Emotional engagement is linked to learners' sense of school belongingness and cognitive engagement. It occurs as school learners become increasingly invested in their learning while behavioural engagement is established through positive conduct and increased school engagement (Shoshani et al., 2016).

Excelling. The ability to maintain effort toward challenges despite failure and adversity is positively related to increased academic achievement (Shoshani et al., 2016). Positive learning behaviours were elicited in one study (Shoshani & Slone, 2017) and engagement in learning increased in another (Seligman et al., 2009). Intrinsic interest increased for intervention learners in the studies of Ruini et al. (2009) and Boniwell et al. (2016), and explicit learning (strategies, subject learning, and uniqueness) increased in the study conducted by Boniwell et al. (2016). Learners in three study intervention groups received higher grades and increased academic achievement (Caprara et al., 2015; Seligman et al. 2009; Shoshani et al., 2016).

Theme 5: Context of PPIs Reviewed

PPI studies were conducted at a variety of schools, with the most done in the United Kingdom, followed by Europe and Israel, followed by the United States of America, Australia, South Africa and China. Most of the selected PPI studies were conducted in middle schools (grades 7-9, n=8), followed by high schools (grade 10-12, n=6), primary schools (grade 1-7, n=5) and preschool/kindergarten (n=2). PPIs implemented by Shoshani et al. (2016) and Shoshani and Slone (2017) were said to have multicultural applicability. Both studies' programmes were based on the Maytiv programme which was developed as an integrative intervention able to cater for children with varying needs from diverse backgrounds. PPIs implemented by Shoshani et al. (2016) and Shoshani and Steinmetz (2014) were said to be useful in underdeveloped settings. Several of the PPIs were said to be cost-effective and required few resources to be implemented (Diebel et al., 2016; Gigantesco et al., 2015; Shoshani & Steinmetz, 2014). Many of the studies were carried out by school facilitators during school hours (Diebel et al., 2016; Foret et al., 2012; Gigantesco et al., 2015; Proctor et al., 2011; Shoshani & Steinmetz, 2014; Shoshani et al., 2016; Shoshani & Slone, 2017; Suldo et al., 2013; Ruini et al., 2009).

Implications for the South African School Context

As you can see from the findings, the implementation of PPIs in a variety of school settings and learner grades can be beneficial and may have positive effects on learners' well-being through increasing aspects of well-being and/or decreasing pathologies. One study from the reviewed literature (Davies, 2015) implemented a PPI in South Africa which indicated a successful alleviation of depression and anxiety in learners. Although there was no increase in well-being scores of the intervention group, through decreasing depression learners' well-being was improved. Interventions implemented by Shoshani et al. (2016), Shoshani and Slone (2017) and Shoshani and Steinmetz (2014) were developed for learners from diverse backgrounds and have multi-cultural applicability, and these interventions can also be used in underdeveloped settings. These findings are promising for the implementation of PPIs in South African school settings. We can assume that the implementation of PPIs in the South African school context will be beneficial. However, certain aspects ought to be taken into consideration prior to the implementation, as discussed by Proctor (2014).

According to Proctor (2014), several points should be noted for those wishing to implement or develop psychological well-being programmes within schools. Firstly, although there are proven benefits to implementing positive psychology programmes in schools, a lack of funding and resources by the majority of schools which require the programmes the most, is a major stumbling block (Proctor, 2014). Secondly, support of the school principal and others who work with the teachers within the school is essential (Proctor, 2014). Thirdly, teachers must receive positive education training, because they are the ones who usually implement the programme. Therefore, it is necessary for them to understand the positive psychology approach in order to maximise success (Proctor, 2014). Fourthly, training materials supplied to teachers to implement programmes should be user-friendly, especially if no training is able to be provided for the teachers. Fifthly, PPIs are not a quick fix; rather,

they are a way of being and doing (Proctor, 2014). Interventions need to be built into whole school curriculums and the focus extended throughout the year with structure and consistency. Teachers should, therefore, be taught how to implement positive psychology techniques across the curriculum. And lastly, it has also been indicated by research that multiple and varied PPI activities are more effective than single approaches (Proctor, 2014).

In order for PPIs to be implemented successfully in the South African school context, it is important to understand how well-being and lower mental health are experienced by learners in South Africa. This research is necessary to develop PPIs which successfully assist in increasing well-being for learners.

Limitations of the Study

The findings from this critical literature review are limited by the under-representation of studies from Africa, especially South Africa, whereby most school settings are in underdeveloped settings. There was also an under-representation of studies in multicultural and underdeveloped settings which would have assisted creating a more substantive argument in which PPIs are the most beneficial for increasing well-being for school learners from underdeveloped schools in South Africa. However, we hope that these findings will provide a baseline summary for further related studies and promote the development of positive psychology interventions for schools in South Africa.

Conclusion

Increasing psychosocial well-being in learners at schools should be a goal of all education systems. Positive psychology's prominence on well-being, flourishing, character, meaning and virtue are in alignment with the climate of whole-school learner learning which is developing in the 21st century (Waters, 2011). Well-being is a crucial aspect of school life and thus it is important that human flourishing should be the fundamental aim of education systems (Gill, as cited in Green & Norrish, 2013). The studies included in this critical

literature review demonstrate the effectiveness of PPIs within school settings. Most PPIs were effective in assisting individuals increase their levels of subjective well-being through increased positive affect and positive emotions. Learners experienced increased life satisfaction and decreased depression while learners in the intervention groups received higher grades and increased academic achievement. It is clear that positive psychology interventions and programmes can play a crucial role in increasing well-being and life satisfaction, improving academic performance and decreasing pathology in school learners.

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SECTION 3: CRITICAL REFLECTION

Section 3 of this study includes a personal reflection by the researcher who discusses her overall experience of this study.

Critical Reflection

The following critical reflection describes the researcher's experience of the research process which was adhered to for the critical literature review. The discussion entails the processes I, as the primary researcher, have followed, including the data collection, data analysis and discussion of findings of this study. A critical literature review is conducted in order to demonstrate that extensive research of literature has been done, and the quality thereof has been evaluated critically (Grant & Booth, 2009).

A critical review is more than just a description of selected articles and should include a degree of analysis and conceptual innovation. Through a critical review literature material from diverse sources is presented, analysed and synthesised (Grant & Booth, 2009). The critical literature review implemented in this research study has followed the five steps described by Carnwell and Daly (2001). These steps include *defining the purpose of the review, defining the scope for the review, identifying the sources of relevant information for the review, reviewing the literature, writing the review and applying the literature to the study.*

The critical literature review evaluated what is of value from previous studies conducted on positive psychology interventions (PPIs), how PPIs have developed, how PPIs are implemented in schools. It also attempted to resolve some competing schools of thought through critical evaluation. As the researcher, I have ensured that throughout the research process I adhere to strong ethical guidelines and follow a rigorous procedure throughout the work.

Because this research did not deal with participants or implement any interventions, ethical considerations regarding participants was not a consideration. This critical review used secondary or existing data from primary studies. Its main focus was to find, select, analyse, synthesise and interpret literature in an ethically responsible way. It involves following the process of rigour throughout the research process necessary to ensure precision and thoroughness in developing theory, design, executing the study, in reporting the results/findings and drawing conclusions (Gnyawali & Song, 2016).

The researcher ensured (through great care and attention to detail) that credibility, confirmability and transferability were attained throughout the research process (Sharts-Hopko, 2002). Ethical processes were ensured throughout the research by following guidelines set out by Wager and Wiffen (2011). To increase the transparency of the research, I, as the primary researcher, conducted the critical review and the work within. As the first and primary reviewer and writer, I am a registered master's student within the MA/MSc Research Psychology Programme at the North-West University. I went to the necessary ethical training required by the North-West University. I was assisted in the monitoring as well as coding of the research study by the second reviewer, Dr Werner de Klerk (the study leader), who has experience in the critical review process as well as thematic analysis.

The final report will not be published in multiple publications. I ensured that plagiarism was avoided, and the works of other authors were referenced both in-text and in a reference list following the reference guidelines of the American Psychological Association, 6th edition. No support or funding was provided for the critical review; therefore, I was neutral and not influenced by competing interests. I ensured the accuracy of the research process and I did not attempt to slant the findings in a particular direction. I ensured that the critical review was conducted with rigour, understanding the responsibility of transparency and honesty of data and interpretation.

Data Collection

Data collection for this critical literature review was a long process; it felt as though it was not going to come to an end. Because there are no formal requirements to present methods of search, synthesis and analysis within a critical review (Grant & Booth, 2009), I utilised a simple analytical framework similar to SALSA (Search, AppraisaL, Synthesis and Analysis) to examine the effectiveness of PPIs in schools and how it was presented in the literature.

In the process of identifying and selecting sources I used keywords to conduct computerised searches of published literature. I initially struggled to formulate the keywords and conduct the computerised search. Therefore, I contacted Mr Nestus Venter, a librarian at the North-West University Potchefstroom library, who assisted me in choosing, combining and modifying the correct keywords correctly by using Boolean search terms (AND, NOT and OR). With Mr. Venter's assistance, utilising the key phrases 'positive psychology in schools', 'school-based interventions' and 'school-based positive psychology interventions', I was finally able to narrow down my search from about 50 000 to around 700 key phrases. This made me a little less frightened of the rest of the critical review journey. I conducted searches on a few other engines and finally obtained about 1 000 reviews of PPIs or programmes from appropriate literature to continue the review process. While I, as the primary reviewer, was responsible for the literature search, my study leader acted as the second reviewer, monitored the review process and assisted with co-analysis of the extracted data.

Data Analysis and Interpretation

Prior to actual data analysis it was necessary for me to review the literature by evaluating and assessing the primary list of studies, which had been selected, in order to establish which ones could be used in the critical review process. This process of appraisal

was extremely time-consuming, since there were 1 146 primary studies in the list. In order to select the appropriate literature to conduct the critical review, it was necessary to read through all the primary sources.

I used the inclusion-exclusion criteria which had been defined during the review proposal phase of the research to establish whether or not the literature would be included. The abstract and title of each primary study were sufficient to determine whether or not the study should be included in the critical review. However, there were a few instances where sufficient information was not provided in the abstract and title alone, in which case I had to read the entire article. After excluding all the studies which did not fit into the inclusion criteria, I was left with 44 studies.

It was important to ensure that the selected studies were of high quality by assessing systematic error and the internal validity and applicability (Puks, 2016). I then continued by reading the full article of each of the 44 selected studies to further determine whether or not they should be included in the study. After reading each full article, 26 studies were excluded from the data pool and I was finally left with 18 studies which would be included in the critical review.

Once I had appraised the literature, I proceeded with the final two phases, namely analysis and synthesis which dealt with analysing the selected literature, drawing conclusions from them and categorising the findings by extracting relevant data from the collected literature (Puks, 2016). I began the data analysis process by reading which involved a preliminary skim of abstracts and the main body of literature in order for it to provide me with insight into what had already been done, how it had been done and why it had been done (Carnwell & Daly, 2001). This phase allowed me to begin finding gaps in research and identifying themes within the selected studies. This method of work began adding some structure to the critical review process.

Once I had read through each of the articles, I read through each study again and began with the data extraction process. It involved reading the full-text of each article and extracting pertinent information, including author(s), publication date, journal or book, research design and methodology as well as themes and codes which would answer the research questions. For this process I used inclusive extraction through which all eligible data was extracted and included in a data sheet to avoid omitting findings valuable to the synthesis. This was not an easy task because I was aware that I had a huge responsibility to ensure that I had collected all the necessary data from each of the studies. This meant that I had to read each study several times to ensure that all the information was collected. All the pertinent information from each article was put into table format to summarise the information and ensure that all the necessary information was included. This was an iterative process, as I moved between reading articles, executing data extraction, analysis and synthesis in several cycles as themes and questions emerged from the synthesis.

As the reviewer, I then used the six steps presented in thematic analysis, as described by Clarke and Braun (2013), to analyse and synthesise definitions and implement information of PPIs in schools. Once I had established a comprehensive all-inclusive data set, which was tabulated and included all the selected studies, I moved on to the process of thematic analysis according to the guidelines set out by Clarke and Braun (2013). For this phase I had to identify patterns and themes in the data in order to adequately interpret and understand the meaning of the text in each study. By reading and re-reading the data, I was able to discover and code underlying themes and topics (Clarke & Braun, 2013).

The steps I followed in the thematic analysis process included familiarising myself with the data, coding, searching for themes, reviewing themes, defining and naming themes, and writing up the report. The process of thematic analysis was a daunting task, as it was necessary for me to go back and forth between the steps for thematic analysis. To ensure it

was being done correctly and all-inclusively, I had to review my themes several times to ensure that they were clear and all-encompassing. I found this phase of the critical review to be quite difficult. It was as though I had been so immersed in the data that I was not always seeing it clearly. I felt as though I was never going to be able to complete my mini-dissertation. It was scary and I felt like I had a lot of pressure because this work had to be of a very high standard.

Using primary studies means that I had the responsibility of conveying the information accurately to ensure that I portrayed the work of different well-established authors accurately, comprehensively and without allowing any biases to contaminate my work. I was very grateful for my study leader at this point because the comments and advice he gave me, forced me to view my work from a different perspective. This was necessary for me to do in order to be able to complete my work at a high standard.

Findings

Once I had completed the analysis and synthesis phases successfully, it was necessary for me to write the review and apply literature to the study. I worked hard to present the results and findings of each reviewed literature publication clearly, consistently, coherently, logically, non-repetitively and interestingly in alignment with the aims of the research (Puks, 2016). I used a table to summarise each of the studies within my article, allowing the reader to see the important information from each study prior to going into the results of the thematic analysis. For the analysis in the final report, I provided a discussion which allowed for the interpretation of the findings as well as speculation on their significance in further research in the field. A summarising paragraph concluded the final report, defining the findings of the research as well as any gaps or weaknesses (Puks, 2016). The findings from the critical literature review were interesting to me, as they demonstrated that positive psychology interventions or programmes are indeed effective within the school context.

Although no two studies produced exactly the same results, each of them, except two, were effective in increasing learner well-being in some way, be it interpersonal or intrapersonal well-being, positive affect or life satisfaction. Where academic achievement and sense of school belonging were assessed, there was an increase after the intervention. The studies also showed decreases in negative pathologies such as depression, anxiety, fear and negative affect.

The intervention which did not show increases in well-being and positive affect was effective in decreasing negative affect and negative pathologies of learners. The other study found that learners' well-being and life satisfaction decreased at the post-test level. However, the well-being of learners in the intervention group decreased less than that of learners in the control group. The interventions ranged from a couple weeks to a few years and were integrated differently, whether into the school curriculum or done after school hours. They were done in different countries and with different grades of learners.

I appreciated learning about the diversity of interventions and how effective they could be. A few of the studies were implemented in multicultural settings and the effects were promising. Some studies were also very cost-effective and easier to implement. These were of great interest to me, especially in South Africa. I hope that the findings from my study can be used by schools in South Africa and the Department of Basic Education to determine which interventions will be most useful in South Africa to develop and implement culturally appropriate positive psychology interventions into our schools. This study has motivated me to continue with a PhD in Research Psychology in order to develop a positive psychology intervention and implement it in South Africa.

Although at some stages I felt like I was never going to complete this study, I enjoyed the process most of the time. I am very interested in positive psychology and education. My ultimate goal is to make a positive contribution to the education system in South Africa, and I

think through the completion of this study I have successfully taken my first step. It has been a wonderful and stressful learning experience which has made a huge contribution to my knowledge and is a huge motivator to my future.

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Addendum



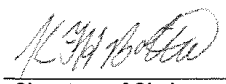
NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

Recommendation of the Research Proposal Committee to the Research Ethics Committee
Research Using Human Participants

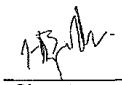
Scientific Committee	**Name**	Jamie-Lee Dormehll	**Discipline**	MA Research Psychology
	Research Entity	COMPRES	**Contact Person**	Johan Le Grange
	Faculty	Health Science	**E-mail**	22215948@nwu.ac.za
Title of the study:	Positive psychology interventions in schools: A critical review.			
Researchers involved in the study:	Promoter: Dr Werner de Klerk.			
Executive summary of the research:	South Africa is faced with numerous challenges if it is to be competitive with the outside world (Duma & Buthelezi, 2014). South Africa's education crisis is well-documented and there is a widespread dissatisfaction with the education system (Paxton, Christie, & Jacklin, 2015), as well as the feeling that the education system is substandard, and perhaps the weakest link in the chain which is tasked with the upliftment of society to the appropriate placing in the world of the twenty first century (Wolhuter, 2014). Positive psychology is a relatively new branch of psychology, which conducts the scientific enquiry into factors which assist individuals, communities and organisations to thrive by building on their strengths and virtues (Waters, 2011). Although positive psychology is a young movement and research is still building in this area, there is growing body of research which supports that identifying and developing children's strengths could have profound long-term benefits (Galloway & Reynolds, 2015). School plays an increasingly important role in assisting youth with the development of cognitive, social and emotional skills. Therefore, schools are asked to incorporate a new paradigm into the education system, with PPIs as a core component, to assist with the development of the school learner through social, emotional, moral and intellectual development (Waters, 2011). The aim of this proposed study will be to provide a comprehensive account of positive psychology interventions (PPIs) and its effectiveness within the school setting, by reviewing what has been investigated and written until this point in time on PPIs in the school setting. A critical review (Grant & Booth, 2009) will be used for this proposed study. The critical review will evaluate what is of value from previous bodies of work, how PPIs has been developed, attempting to resolve some competing schools of thought, through critical evaluation, and how it is best implemented in schools (Grant & Booth, 2009).			
Potential risk level for human participants:	No risk	☒	Motivate: No human participants	
	Minimal risk	☐		
	Medium risk	☐		
	High risk	☐		
Potential risk level for children and incapacitated adults:	No risk	☒	Motivate: No child participants	
	No more than minimal risk of harm	☐		
	Greater than minimal risk with the prospect of direct benefit	☐		
	Greater than minimal risk with	☐		

1

	no direct benefit		
Recommendation for the ethics committee	Expedited review	☐	Motivate: A critical review will be done. No human participants, topic not ethically sensitive..
	Full review	☐	
	Exempted from review	☒	
Any additional comments	Motivate: Study is approved.		
Committee members present during the review	**Members present**		
	Prof K Botha		
	Prof HE Ryke		
	Prof C Wessels		
	Prof E van Rensburg		
	Prof W Roestenburg		
	Click here to enter name.		
Date of review	2018/02/28		



Signature of Chairperson
Date: 2018/03/14



Signature of Research Director
Date: 2018/03/20

Decision of the Ethics Committee:

Expedited review	☐	**Motivate:** Click here to enter text.
Full review	☐	
Exempted from review	☐	

Signature of Chairperson of the Research Ethics Committee
Date: Click here to enter a date.

Developed by Minrie Greeff, 1 March 2017