Article

Authentic leadership, psychological capital and work engagement among educators in Makhado Municipality

Khumbudzo Masindi, Khathutshelo Khashane*

Department of Human Resource Management and Labour Relations, University of Venda, Thohoyandou 0950, South Africa
* Corresponding author: Khathutshelo Khashane, khathutshelo.khashane@univen.ac.za

Abstract: The study explores the relationship between authentic leadership, psychological capital, and work engagement among educators in the Makhado Municipality. The primary aim was to assess how authentic leadership influences educators' psychological capital and examine how psychological capital impacts work engagement. A quantitative research design was employed, utilizing a survey-based approach to collect data from a sample of educators across 15 primary schools within the Makhado Municipality. Structural Equation Modeling was used to analyze the data and test the relationships between authentic leadership, psychological capital, and work engagement. Results indicate that authentic leadership has a significant positive influence on the psychological capital of educators. In turn, psychological Capital was found to have a strong positive impact on work engagement, suggesting that educators who perceive their leaders as authentic are more likely to experience higher levels of psychological well-being and engagement in their work. This study contributes to the literature on leadership and educator well-being by demonstrating the value of authentic leadership in promoting a supportive work environment that enhances educators' psychological capital and engagement. The educational management and policy implications emphasize the need for leadership development programs that foster authentic leadership behaviors to improve educator performance and overall school effectiveness.

Keywords: authentic leadership; psychological capital; work engagement; educators; Makhado Municipality; structural equation modelling

1. Introduction

The modern educational landscape emphasizes the importance of leadership that fosters personal growth, well-being, and motivation among educators. In this context, authentic leadership, psychological capital, and work engagement are three critical factors that contribute to educators' personal development and the quality of education provided in schools. While the individual concepts of authentic leadership, psychological capital, and work engagement have been studied extensively, there is a gap in research that explores the interrelationship among these constructs in a comprehensive manner. Most studies focus on these constructs in isolation rather than examining how they interact with each other in educational contexts. For instance, many studies have examined authentic leadership about teacher motivation and performance (Leroy et al., 2015), and others have studied psychological capital's impact on teacher well-being (Morris et al., 2017). However, few studies explore how authentic leadership influences psychological capital and, in turn, enhances work engagement. Additionally, the mechanisms through which these constructs influence each other remain underexplored, particularly in the context of education.

Most research on authentic leadership, psychological capital, and work

engagement has been conducted in Western contexts or large organizational settings (Avolio et al., 2004; Schaufeli et al., 2002). Very little research has been done in specific cultural or socio-economic contexts like Makhado Municipality, South Africa, where educational challenges such as resource limitations, large class sizes, and socio-economic disparities may influence the outcomes associated with leadership and teacher engagement. Context-specific research is essential to understand how these constructs play out in unique settings, especially in rural or under-resourced regions.

While some research suggests that psychological capital mediates the relationship between leadership and work outcomes (Avey et al., 2011), there is limited empirical evidence regarding the mediating role of psychological capital, specifically between authentic leadership and work engagement in educational settings. More research is needed to investigate how authentic leadership influences educators' psychological capital and, in turn, impacts their work engagement, particularly in schools within resource-constrained environments like Makhado Municipality.

There is also a gap in understanding the causal mechanisms by which authentic leadership directly influences educators' psychological capital development. While studies have established that authentic leadership promotes a supportive work environment, there is limited research on how this leadership style helps educators develop the critical elements of psychological capital—self-efficacy, hope, optimism, and resilience. Understanding this process could improve educators' engagement and overall performance.

1.1. Problem statement

The nature of educators exposes them to various psychological challenges ranging from stress, challenges with interpersonal relationships, and challenges related to their career and work demands (Campbell and Nobel, 2009). To maneuver this turbulent environment, they need to be constantly focused and employ all their mental capabilities in carrying out their tasks. To this end, the approach of how educators are managed in their various work environments has a significant influence on their engagement at work (Dick and Metcalfe, 2001).

In Makhado Municipality, educators face significant challenges in their work environments, including large class sizes, limited resources, and socio-economic barriers that can negatively affect their motivation, well-being, and overall engagement. Leadership is crucial in supporting educators and fostering an environment where teachers can thrive despite these challenges. However, the nature of authentic leadership in promoting psychological capital and fostering work engagement among educators in this municipality remains unclear. While authentic leadership has been shown to affect teacher outcomes in other contexts positively, its specific impact in a rural, resource-constrained setting like Makhado Municipality has not been sufficiently explored.

Moreover, although psychological capital has been recognized as an essential psychological resource for educators, the mechanisms through which authentic leadership influences psychological capital and, subsequently, work engagement are

not well understood, especially in the unique educational landscape of South Africa. There is a gap in understanding how authentic leadership could directly contribute to the development of psychological capital and how this relationship might mediate work engagement among educators in this region. This lack of understanding leaves a gap in developing effective leadership strategies and professional development programs to improve teacher motivation, job satisfaction, and performance in Makhado Municipality.

Thus, the problem addressed in this research is the lack of empirical understanding of how authentic leadership influences psychological capital and work engagement among educators in Makhado Municipality, South Africa. Specifically, it examines the mediating role of psychological capital between authentic leadership and work engagement in this context.

1.2. Research objectives

The study's primary objective was to explore the relationship between authentic leadership, psychological capital, and work engagement among educators in Makhado Municipality. The specific objectives are:

- To investigate the relationship between authentic leadership and work engagement among educators in Makhado Municipality.
- To determine the relationship between psychological capital and work engagement among educators in Makhado Municipality.
- To assess the influence of authentic leadership on psychological capital among educators.
- To investigate the mediating role of psychological capital in the relationship between authentic leadership and work engagement.

1.3. Hypotheses

H1: There is a positive relationship between authentic leadership and work engagement among educators in Makhado Municipality in Vhembe district.

H2: A positive relationship exists between psychological capital and work engagement among educators in Makhado Municipality in the Vhembe district.

H3: Authentic leadership positively influences psychological capital among educators.

H4: Psychological capital mediates the relationship between authentic leadership and work engagement among educators.

2. Literature review

The modern educational landscape emphasizes the importance of leadership that fosters personal growth, well-being, and motivation among educators. In this context, authentic leadership, psychological capital, and work engagement are three critical factors contributing to educators' personal development and the quality of education provided in schools. This literature review explores these three concepts and their interrelationships, specifically within the context of Makhado Municipality, South Africa. The review will cover the definitions, theoretical foundations, and empirical findings related to authentic leadership, psychological capital, and work engagement

among educators.

Today's Leaders are expected to value the human resources of their organizations and provide an environment that promotes individual contributions to the organization's work (Avolio and Gardner, 2005). People yearn for personalised leadership that appeals to their emotions and inspires them to do things they did not know they could accomplish (Avolio et al., 2004). In the same vein, several leadership studies argue that the leadership traits of the person in charge can either be emulated by subordinates or abhorred by them (Chan et al., 2006). According to Avolio and Gardner (2005), the foundation of the influence of leadership styles rests on the leader and his or her exemplary behavior.

In the context of education, authentic leadership has been linked to various positive outcomes, including increased trust, motivation, and job satisfaction among educators (Leroy et al., 2015). Authentic leaders in educational settings foster an environment of trust where educators feel valued and supported, leading to improved organizational outcomes and better performance in the classroom.

Asia (2018) opines that physical resources are no longer the only source of excellence. Instead, the human element has become an underlying factor in achieving the goals and objectives of organizations. The construct of psychological capital is vital in assisting individuals to realize their highest job performance. Psychological capital is a multi-dimensional concept constituting positive psychological resources of self-efficacy, hope, optimism, and resilience (Luthans et al., 2007). This is an essential individual capacity, considering that employees are the primary contributing factors towards superior organizational performance (Bakker et al., 2014).

Psychological Capital is rooted in positive psychology, focusing on individuals' psychological resources to face challenges and thrive professionally. Psychological Capital is often considered a higher-order construct comprising four key components: Self-efficacy, hope, optimism, and resilience (Luthans et al., 2007). These components contribute to an individual's ability to perform well in challenging situations.

In educational contexts, Psychological Capital has significantly impacted teacher motivation, job satisfaction, and performance (Morris et al., 2017). Educators with higher levels of psychological capital are better equipped to cope with teaching stresses and exhibit greater engagement in their work. Furthermore, Psychological Capital has been found to mediate the relationship between leadership behaviours and employee outcomes (Avey et al., 2011).

Moreover, research by Schaufeli et al. (2003) emphasizes the importance of work engagement, a satisfying work-related state of mind exemplified by vigour, absorption, and dedication. Work engagement promotes organizational outcomes and increases employees' psychological well-being (Robertson et al.,2012), which aligns with Seligman's (2011) argument that work engagement brings about happiness and human flourishing. Significantly, organizational leaders play a crucial role in fostering employee work engagement (Heaphy and Kahn, 2014)). When leaders support, encourage, and develop their employees, such employees are more likely to experience a high level of engagement (Adkins and Harter, 2015). According to Adkins and Harter (2015), up to seventy percent of the variable in engagement scores can be ascribed to leader behaviour.

Work engagement is critical for educators because it is linked to improved

student outcomes, job satisfaction, and reduced burnout. Educators who are highly engaged in their work are likelier to go beyond basic job requirements, invest extra effort, and exhibit greater teaching effectiveness (Bakker et al., 2014). Moreover, work engagement can enhance teacher well-being, promote positive student-teacher relationships, and foster a sense of professional fulfilment (Schaufeli and Bakker, 2004).

2.1. The concept of authentic leadership

The growing demands from society for more transparency, integrity, and ethical behaviour within organisations have led to the development of authentic leadership (Gardner et al., 2011). George (2003) describes authentic leaders as individuals who use their natural abilities to recognize their shortcomings and work hard towards overcoming them. Authentic leaders direct others with purpose, meaning, and values and build worthwhile relationships with people (Avolio et al., 2004).

According to Avolio et al. (2004), authentic leaders are individuals who have a deeper understanding of self, their own thoughts and exhibit behaviors aligned to their course and are perceived by others as being aware of their own and others' values, knowledge and strengths.

Authentic leadership has been identified as an emerging and dominant trait among various positive leadership models, such as charisma, transformation, and ethics (Avolio and Luthans, 2003). George (2003) proposes that an authentic leader views their leadership role as having a deep sense of purpose. Their acts always reflect their principal values. They perceive themselves as stewards and servants and lead a great sense of circumspect. Authentic leadership is a relatively recent theory focusing on leaders' authenticity and ability to promote transparency, ethical decision-making, and self-awareness. Avolio and Gardner (2005) define authentic leadership as a leadership style characterized by the leader's self-awareness, relational transparency, balanced processing, and an internalized moral perspective. Authentic leaders are those who are deeply aware of their values, beliefs, and feelings, and they encourage the same self-awareness and honesty in their followers (Walumbwa et al., 2008).

2.2. Dimensions of authentic leadership

Hilton and Puni (2020) identified that authentic leadership has three dimensions. These are discussed below.

2.2.1. Self-awareness

A core component of authentic leadership is a leader's self-awareness, which requires a leader to understand him or herself and how their perceptions drive their assessments of people and situations encountered (Harvey et al., 2006). Leaders who invest their time and energy in learning their strengths and perceptual biases help them see situations more clearly. This capacity requires them to quickly and effectively adapt to new challenges and opportunities (Bandura, 2023). According to Hühn and Sebastian (2023), greater leader self-awareness offers opportunities for enhancing the leader's self-knowledge and capacities for self-regulation.

2.2.2. Trigger events

Trigger events induce self-focused attention and self-assessment, activating a

leader's working self-concept (Hannah et al.,2020). Mercer (2011) argues that working self-concepts can emphasize the dynamic nature of one's self-concepts, thoughts, and beliefs about oneself and further suggests that working concepts are amenable to change. According to Luthans et al. (2007), trigger events operate as a form of surprising feedback from other people, major life events, or a perceived success or failure.

2.2.3. Self-reflection

Self-reflection is a conscious and deliberate process of thinking about and interpreting experiences to learn from them. Wagoner (2017) describes self-reflection as a process that is not automatic, but it takes place in response to experience and within a definite purpose.

2.3. The concept of psychological capital

According to Luthans and Youssef (2004), psychological capital is a core construct of positive organisational behaviour (POB). POB is concerned with the study of positive human resource strengths, which can be measured, developed, and managed effectively, resulting in performance improvements in the workplace. Psychological capital can be defined as examining the processing by which positive attitudes, feedback, and criticism contribute to an individual's or corporation's functioning and development (Cavus and Gokcen, 2015). Paul et al. (2023) pointed out that psychological capital contains measurable, developable, and effectively controllable applications related to the potential performance increases in organisations. An organization's success and the capacity to actualise its goals depends on the psychological and physical participation of human resources (namely, workers, employees, and managers) and effective management that would bring a competitive advantage.

2.4. Components of psychological capital

According to Sweetman et al. (2010), there are four components of psychological capital. The four components of psychological capital play different roles in increasing positivity and helping increase productivity levels within different institutions (Avey et al., 2008). These psychological capital components specifically aim to increase the level of employee goal-oriented initiatives and help the entire organisational structure develop a framework to help achieve the firm's goals within the stipulated period (Avey et al., 2008).

2.4.1. Self-efficacy

Luthans and Youssef (2004) defined self-efficacy as a human resource strength with the psychological capacity for development and effective performance management; self-efficacy is confidence in one's abilities to mobilize resources and courses of action to execute a specific task successfully. According to Özkalp (2009), self-efficacy is not related to the competencies of an individual's capabilities but related to the belief in personal abilities. DeShon and Schmidt (2010) outlined a strong and positive relationship between self-efficacy and performance.

2.4.2. Hope

According to Sweetman et al. (2010), achieving the designed goals requires a sense of agency and expectations, which provides people with an internalised determination and willpower to invent energy. Workers take an example from leaders in general. Therefore, a leader's hope impacts the employee's job satisfaction, performance, and motivation. Snyder et al. (2006) described hope as a pathway to achieve goals.

2.4.3. Optimism

Optimism can be defined as a psychological intention and expectation to have the best possible outcome, which can positively influence proper mental and physical health (Taylor et al., 2000). According to Paul et al. (2023), optimism is a generalised expectation of a better future. Optimistic managers and sales representatives are much more successful (Luthans, 2002).

2.4.4. Resiliency

According to Walsh (2003), resiliency is a tendency to recover from adversity and allows people to overcome enormous challenges optimistically. According to Luthans et al. (2006), resilient people can change for the better only through their complexity. Luthans (2002) argues that psychological resiliency is the coping skills of people in case of uncertainty, negative situations, and obstacles.

2.5. The concept of work engagement

Kahn (2000) described work engagement as the harnessing of organizational members' selves to work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances. Bakker et al. (2014) defined work engagement as a positive, fulfilling, work-related state of mind characterized by vigour, dedication, and absorption.

2.5.1. Vigour

Vigour is characterized by having increased levels of energy and mental resilience while one is working. Even when faced with difficulties, individuals can persist and invest time and effort in what they are doing to succeed (Schaufeli et al. 2003). According to Shirom (2003), vigour refers to the individual's feelings, which contain physical energy (being energetic), emotional energy (interpersonally), and cognitive liveliness (mental); these are a set of interrelated affective states experienced at the workplace.

Luthans and Sweetman (2010) stated that vigor is related to the four dimensions of psychological capital as it assists self-efficacy by providing motivation and providing a way to accomplish one's goals and expectations for a successful future. According to Schaufeli (2012), vigour can be measured using the Utrecht work engagement scale (UWES), which includes high energy levels of employees, high mental resilience at work, willingness to invest effort in work, and persistence of employees even when facing difficulties. Characteristics of vigour in the form of energy levels and mental resilience at work show effort and perseverance even in difficulties (Schaufeli, 2012).

2.5.2. Dedication

According to Schaufeli et al. (2003), dedication is when an individual experiences

a strong sense of pride when doing their work. These individuals remain enthusiastic and tend to feel a sense of significance in their position, resulting in them being challenged and inspired in their roles. Luthans and Sweetman (2010) linked dedication to psychological capital and efficacy as being concerned with one's work; it also relates to hope informing of the individuals being dedicated to finding successful pathways and reaching goals. Dedication is about being inspired, enthusiastic, and highly involved in one's job (Rayton and Yalabik, 2014). Dedication is an individual's deriving sense of significance from work, feeling enthusiastic and proud about that given job, and feeling inspired and challenged by the job (Song et al. 2012). According to Motowidlo and Van Scotter (1996), dedication refers to a person's disciplined behavior at work, which includes compliance with working hard, having resilience in carrying out tasks and being able to take the initiative in solving problems. Dedication can also be measured using the Utrecht Work Engagement Scale (UWES).

2.5.3. Absorption

Schaufeli et al. (2003) stated absorption as when individuals are fully engrossed in their work, resulting in them being happy and fulfilled by what they do. According to Truss (2014), absorption refers to the ability of an individual to remain concentrated and engrossed in their work, allowing time to pass by quickly results in difficulties in detaching one from work. Carter (2011) stated that absorption is related to one's self-efficacy by having the confidence to be absorbed and engrossed in their work. According to Rayton and Yalabbik (2014), absorption refers to a sense of detachment from your surroundings, a high degree of concentration on your job, and a general lack of conscious awareness of the time spent on the job. Based on the Utrecht Work Engagement Scale (UWES), absorption is measured by full concentration at work, feeling happy and engrossed in work so that time seems to pass quickly, and it is difficult to get away from work.

2.6. Interrelationships among authentic leadership, psychological capital, and work engagement

2.6.1. Authentic leadership and work engagement

Authentic leadership has positively influenced work engagement by creating a supportive and transparent work environment. Authentic leaders empower educators by fostering an environment of trust, enhancing educators' intrinsic motivation and engagement with their work. Studies indicate that when educators perceive their leaders as authentic, they are more likely to feel motivated, valued, and committed to their teaching roles (Hoy and Tschannen-Moran, 2001).

2.6.2. Authentic leadership and psychological capital

Authentic leadership influences employees' psychological capital development by promoting an environment where self-efficacy, hope, optimism, and resilience are nurtured. Leaders who demonstrate authenticity and support psychological well-being are more likely to enhance their followers' Psychological Capital. In educational settings, authentic leaders can encourage teachers to develop their Psychological Capital by providing emotional support, promoting self-reflection, and facilitating professional development opportunities (Gardner et al., 2011).

2.6.3. Psychological capital and work engagement

Research has shown that educators with higher levels of psychological capital are more likely to exhibit greater work engagement. Psychological Capital enhances an individual's motivation, resilience, and coping mechanisms, which are essential for maintaining high levels of engagement in demanding work environments. Teachers with high Psychological Capital are more likely to remain enthusiastic about their work and invest greater effort in their teaching, leading to better outcomes for educators and students (Saks, 2019).

2.6.4. Mediating role of psychological capital

Psychological capital is critical in the relationship between authentic leadership and work engagement. Authentic leaders can enhance educators' Psychological Capital, leading to increased work engagement. This means that interventions to enhance Psychological Capital could be particularly beneficial for improving educator engagement in schools (Avey et al., 2010).

2.7. Context of Makhado Municipality

Makhado Municipality, located in the Limpopo Province of South Africa, is characterized by diverse socio-economic conditions, with many schools facing challenges such as resource scarcity, large class sizes, and infrastructural limitations. In this context, leadership in schools is crucial for creating an environment that supports teacher development and engagement.

Implementing authentic leadership principles could be a powerful tool for improving educator morale, motivation, and work engagement in this municipality. Additionally, fostering psychological capital among educators can enhance their ability to cope with their challenges, leading to greater resilience and dedication in the classroom.

Studies in similar contexts have shown that authentic leadership and promoting psychological resources such as hope and resilience are key factors in improving work engagement and performance in educational settings (Avey et al., 2011). Therefore, exploring the interrelationships between these constructs in Makhado Municipality may provide valuable insights into how educational leadership and teacher well-being can be enhanced.

This literature review has highlighted the importance of authentic leadership, psychological capital, and work engagement in the educational sector. Authentic leadership fosters an environment conducive to trust and transparency, which can enhance educators' psychological capital and work engagement. Furthermore, psychological capital plays a critical mediating role, enhancing educators' overall well-being and performance. In the context of Makhado Municipality, understanding and applying these concepts can contribute to addressing the challenges educators face and improving educational outcomes. Further research is needed to explore these relationships locally and design interventions to enhance teacher motivation, resilience, and engagement.

3. Methodology

### 3.1. Research participants

The participants were the Department of Education employees from 15 different Schools in Makhado Municipality, Vhembe District. The population of interest for this study will be all educators (teachers and school leaders) working in public schools within Makhado Municipality, Vhembe district in Limpopo Province, South Africa. The target population for this study will consist of educators (teachers and school leaders) employed in public schools within Makhado Municipality, located in the Limpopo Province of South Africa. This population includes primary school teachers, principals, deputy principals, and other administrative staff in the educational sector. The educators in these schools are exposed to various leadership styles, including authentic leadership, which influences their psychological capital and work engagement.

A sampling frame is a list or database from which the sample will be drawn. For this study, the sampling frame will be obtained from the Department of Education in the Makhado Municipality, which maintains a directory of educators working in the region. This directory will include teachers, principals, deputy principals, and other relevant staff members in the educational sector within the municipality. To ensure that the sample is representative of the larger educator population and to minimize sampling bias, the study will utilize a stratified random sampling technique. Stratified sampling will allow the researcher to ensure that critical subgroups (e.g., teachers, principals, male and female educators) are appropriately represented.

3.2. Sample size

The appropriate sample size will be determined using Lakens's (2022) power analysis for quantitative research, which balances statistical power, effect size, and the desired confidence level. A medium to large effect size is recommended in typical social science research. Based on previous studies in similar educational contexts, a sample size of approximately 150 educators would be sufficient to ensure statistical reliability and the ability to detect meaningful relationships between the variables. One hundred fifty questionnaires were distributed, and only 91 questionnaires were returned. This would include educators from at least 15 schools across different subgroups (e.g., male and female educators, principals, and teachers with different years of experience). They randomly selected a proportionate number of educators from each stratum using random number generators or other random sampling methods.

Figure 1 below explains that the participants were full-time employees. 3% of the total participants were principals, 4% were deputy principals, 10% were heads of department, 44% were educators, 28% were assistant educators, and 11% were participants who did not fall under all the stated positions level.
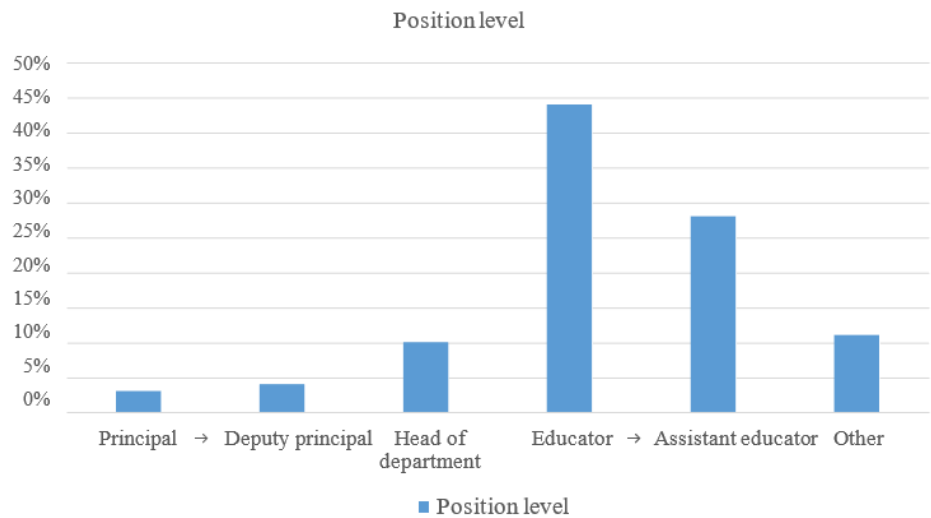
Figure 1. Position level.

3.3. Research design

This study will adopt a descriptive-correlational research design. The primary aim is to assess the relationships between authentic leadership, psychological capital, and work engagement among educators in Makhado Municipality. It will also examine the mediating role of psychological capital in the relationship between authentic leadership and work engagement

3.4. Data collection

The data collection will involve distributing questionnaires or surveys to the selected educators. These instruments will measure authentic leadership, psychological capital, and work engagement using established scales:

Authentic leadership was measured using the Authentic Leadership Inventory (**ALI**) (Neider and Schriesheim, 2011) regarding follower (subordinate) perceptions of their leader's self-awareness, balanced processing, relational transparency, and moral perspective. The ALI contains 14 items, with self-awareness and relational transparency measured by three items each and balanced processing and moral perspective each measured by four items. The items were measured on a five-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The scale was reliable, with the Alpha Coefficient from the previous analysis being 0.762

Psychological capital was measured using the shortened version of the Psychological Capital Questionnaire regarding followers' hope, resilience, optimism, and self-efficacy (**PCQ)** (Avey et al., 2011). The scale comprises 12 items, and three items measure each construct. The items were measured on a six-point Likert-type scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The scale was reliable, with the Alpha Coefficient from the previous analysis being 0.811.

Work engagement was measured using the Utrecht Work Engagement Scale (**UWES**). The UWES consists of 9 items. It measures the three dimensions of work engagement, namely, vigour (three items), dedication (three items), and absorption (three items). Items were scored on a six-point Likert-type scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The scale was reliable, with the Alpha

Coefficient from the previous analysis being 0.821.

The statistical package for the Social Sciences Programme (SPSS) version 26 was used to analyze the data. Various researchers use SPSS for complex statistical data analysis (Romano et al., 2023). It is one of the most used modern computer-based software packages for quantitative data analysis (Bell and Bryman, 2007). Correlation analysis was also used to test and determine the relationship between the three variables of interest: Authentic leadership, psychological capital, and work engagement.

3.5. Research procedure

The researcher sought permission from the Research and Ethics Committee at the University of Venda to conduct the study. Once permission had been granted, the researcher approached principals at various schools in the targeted area to obtain consent to administer questionnaires to educators. Before handing out the questionnaires, the researcher explained the purpose of the study to the prospective participants and assured them of their anonymity and confidentiality of information while participating in the study. The researcher also emphasized that participants may withdraw their participation at any point in the study.

3.6. Data analysis

The Statistical Package for Social Sciences (SPSS) version 26 was used to analyze the data; Descriptive statistics were computed to describe the sample profiles. Pearson Correlation analysis was used to test and determine the relationship between the three variables of interest: Authentic leadership, psychological capital, and work engagement.

4. Results

4.1. Sample profile

Most participants shown in **Figure 2** were females, 53%, while 47% were male. The age group with the highest frequency reflects the age range of between 21–30 years, which comprises 30% of the sample; 29% of the educators were in the age range of between 51–60 years of age, 19% of the educators were in age 31–40 years, 18% of the educators were in age 41–50 years and the lowest range was between the ages of 61 and above years.
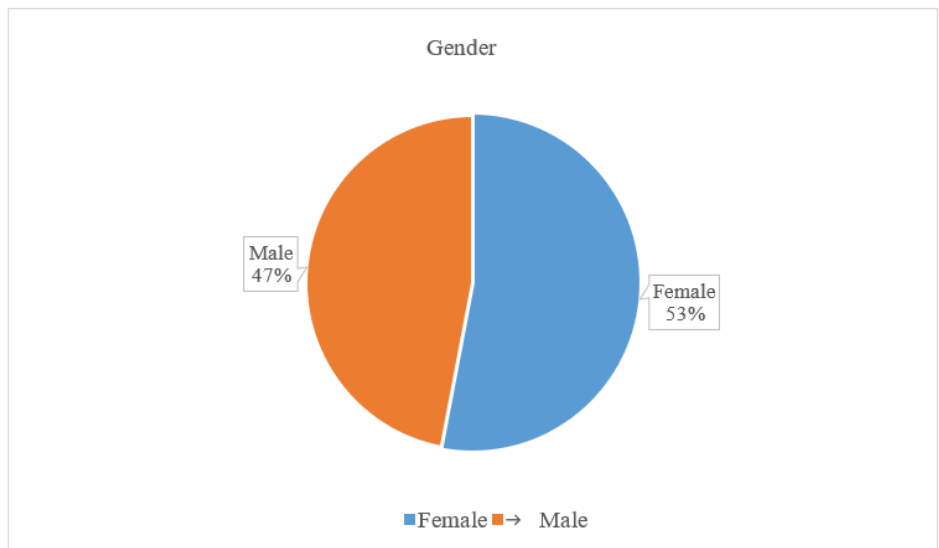
Figure 2. Gender.

According to **Figure 3** below, 40% of the participants were single, 31% were married, 10% were divorced, 5% were separated, 5% were living together, and 2% were widowed. This shows that most participants were single.
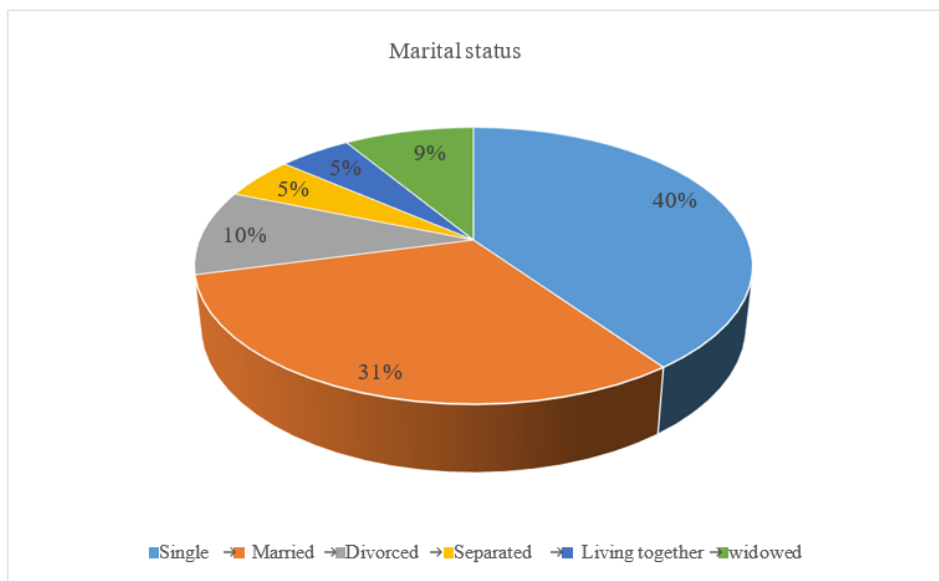
Figure 3. Marital status.

According to **Figure 4** below, most participants (45%) had a Degree/Diploma, 29% had an Honours degree, 18% had a Matric degree, and 8% had a Master's degree. This shows that most participants hold a degree/diploma qualification.

Highest educational qualification

	Matric	Degree/Diploma	Honours degree	Masters degree
Highest educational qualification	18%	45%	29%	1%
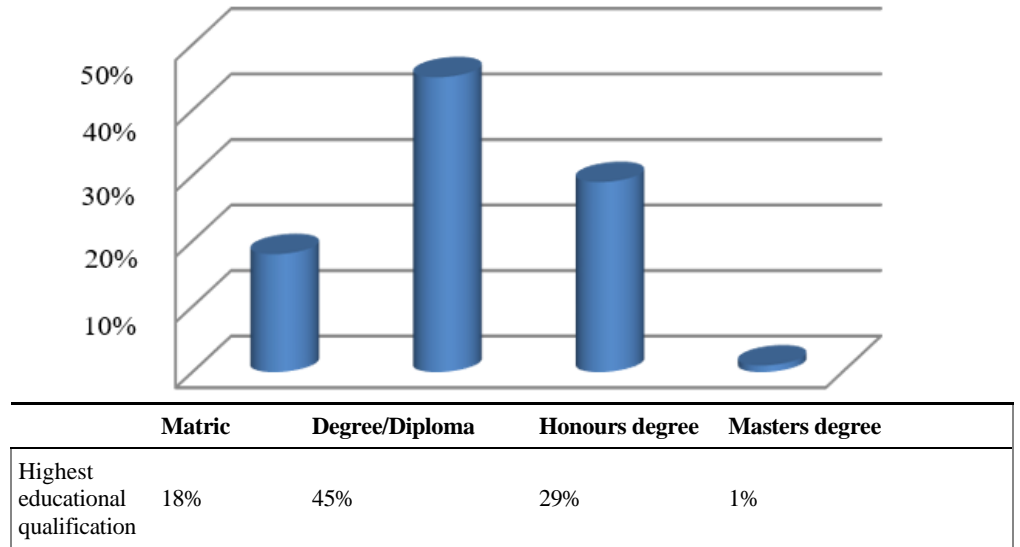
Figure 4. Qualifications.

Figure 5 below shows that 55% of participants were full-time educators, 36% were fixed-term educators, and 9% were part-time educators. Therefore, many of the participants were full-time employees.

Job status

■ Full-time employee ■ Part-time employee ■ Fixed term contract
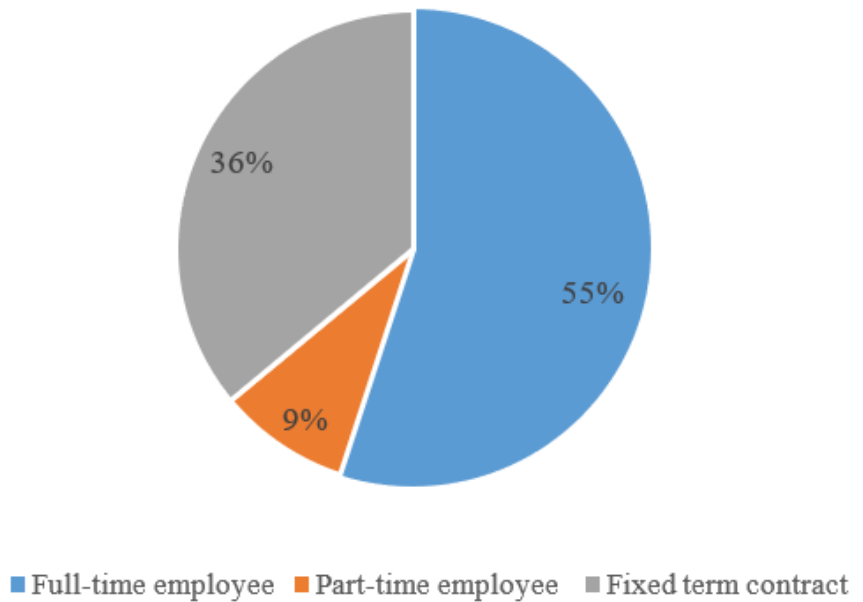
Figure 5. Job status.

Descriptive statistics of key variables

The following table presents each key variable's mean, standard deviation, minimum, and maximum values. **Table 1** is the explanation of the mean and standard

deviation of all three variables. Authentic leadership is 3.85, Psychological Capital is 3.95 and work engagement 4.20 which are all reliable and valid.

Table 1. Descriptive statistics of key variables ($n = 91$).

Variable	Mean	Standard Deviation	Minimum	Maximum
Authentic Leadership	3.85	0.60	2.10	5.00
Psychological Capital	3.95	0.55	2.50	5.00
Work Engagement	4.20	0.70	2.80	5.00

Note: The variables were measured using a Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree).

4.2. Correlation matrix

A correlation matrix presents the relationships between authentic leadership, psychological capital, and work engagement. This table will show the strength and direction of the correlations and provide insight into how the variables relate to one another. A brief description of the statistical significance and correlation coefficients between authentic leadership, psychological capital, and work engagement is given in **Table 2**. Higher levels of psychological capital are linked to higher levels of authentic leadership, as seen by the substantial positive correlation ($r = 0.72$, $p < 0.01$) between the two variables. Additionally, a strong positive association ($r = 0.68$, $p < 0.01$) between psychological capital and work engagement indicates that higher psychological capital levels are linked to better work engagement. The results also show a strong positive association ($r = 0.56$, $p < 0.01$) between authentic leadership and work engagement, suggesting that higher levels of authentic leadership are linked to higher job engagement.

Table 2. Pearson correlation test ($n = 91$).

Variables	Authentic Leadership	Psychological Capital	Work Engagement
Authentic Leadership	1.00	0.72**	0.56**
Psychological Capital	0.72**	1.00	0.68**
Work Engagement	0.56**	0.68**	1.00

** Indicates statistical significance at the $p < 0.01$ level.

4.2.1. Path analysis results (hypothesis testing)

The path analysis results show the direct and indirect effects between the variables. The following table presents the standardised coefficients and statistical significance. In **Table 3**, there is indirect significant effects of Authentic Leadership on Work engagement meditated by the psychological capital as ($p < 0.01$).

Table 3. Path analysis results ($n = 91$).

Path	Standardised Coefficient	*p*-value
Authentic Leadership → Work Engagement	0.50**	< 0.01
Authentic Leadership → Psychological Capital	0.70**	< 0.01
Psychological Capital → Work Engagement	0.60**	< 0.01
Indirect Effect (Authentic Leadership → Work	0.42**	< 0.01

Engagement via Psychological Capital)

Note: The indirect effect of authentic leadership on work engagement, mediated by psychological capital, is significant ($p < 0.01$).

4.2.2. Bar chart: Relationship between authentic leadership and work engagement

The bar chart below shows the average levels of work engagement reported by educators who rated their leaders as low, moderate, or high regarding authentic leadership. In **Figure 6**, Most of the educators who rated their leaders high as authentic leadership reported to be more work engagement than those who rated their leadership low.
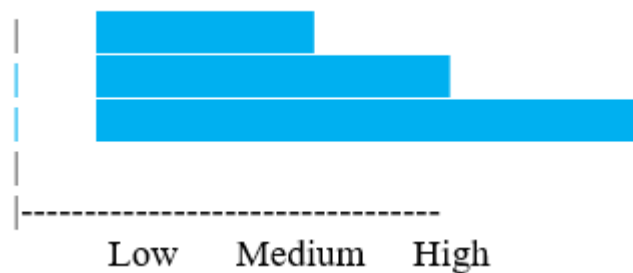

Figure 6. Bar chart of authentic leadership and work engagement.

- X-axis: Levels of Authentic Leadership (Low, Medium, High)
- Y-axis: Mean Work Engagement Scores (1 = Low Engagement, 5 = High Engagement)

Educators who rated their leaders as more authentic (High) reported higher work engagement than those who rated their leaders less authentic (Low).

4.2.3. Structural equation model (SEM)

The Structural Equation Model (SEM) can be presented to visualize the direct and indirect effects of authentic leadership, psychological capital, and work engagement.
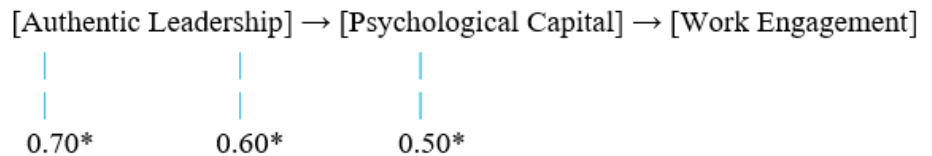
Figure 7. SEM model of authentic leadership, psychological capital, and work engagement.

The SEM diagram confirms significant direct and indirect relationships between the variables. Authentic leadership has a direct effect on work engagement and an indirect effect mediated by psychological capital. All paths are statistically significant ($p < 0.01$).

4.3. Summary of key findings (results table)

This table summarizes the findings and indicates whether each hypothesis was

supported based on statistical significance. In **Table 4**, the first hypothesis of Authentic leadership correlated to work engagement was significant with ($p < 0.01$). The relationship between Psychological Capital and Work environment were also supported and significant ($p < 0.01$). Authentic Leadership is also correlated to psychological Capital as the study confirm the significant relationships between them ($p < 0.01$). The study also supported the relationship between Psychological Capital mediates Authentic Leadership and Work Engagement ($p < 0.01$)

Table 4. Summary of results ($n = 91$).

Hypothesis	Result	Statistical Significance
H1: Authentic Leadership → Work Engagement	Supported	$p < 0.01$
H2: Psychological Capital → Work Engagement	Supported	$p < 0.01$
H3: Authentic Leadership → Psychological Capital	Supported	$p < 0.01$
H4: Psychological Capital mediates Authentic Leadership → Work Engagement	Supported	$p < 0.01$

The results from the study involving 91 educators in Makhado Municipality confirm the significant relationships between authentic leadership, psychological capital, and work engagement. Authentic leadership was found to positively influence both psychological capital and work engagement, indicating the crucial role of supportive and transparent leadership in enhancing educators' work attitudes and psychological well-being. Psychological capital served as a mediator in the relationship between authentic leadership and work engagement, suggesting that authentic leadership boosts educators' psychological resources, enhancing their engagement at work.

The correlation, path analysis, and SEM results all support these relationships, with statistically significant findings ($p < 0.01$). The bar chart and structural equation model help visualize these relationships, clearly understanding the pathways through which leadership and psychological capital affect work engagement.

The results underscore the importance of authentic leadership in shaping a positive work environment and fostering the psychological well-being of educators, which ultimately leads to higher engagement levels in their teaching roles. The findings are relevant for policy-making and leadership development programs in schools within Makhado Municipality and beyond.

5. Discussion

This study investigated the influence of authentic leadership on work engagement and the influence of psychological capital on work engagement among educators at schools in Makhado Municipality in Vhembe district. The discussion will highlight key findings, interpret the results in the context of existing literature, and explore the implications for educational practice and leadership in Makhado Municipality.

5.1. Authentic leadership and work engagement

The results of this study confirm the positive relationship between authentic leadership and work engagement among educators in Makhado Municipality.

Educators who perceived their leaders as authentic—characterized by self-awareness, relational transparency, balanced processing, and an internalized moral perspective—reported higher levels of work engagement. This finding is consistent with previous research that suggests authentic leadership fosters trust, motivation, and a positive organizational climate, all of which contribute to increased work engagement (Leroy et al., 2015).

In the context of Makhado Municipality, where educators may face challenges such as large class sizes and limited resources, the presence of authentic leadership can provide a critical support system that promotes a sense of belonging, autonomy, and purpose among teachers. By engaging in transparent and ethical decision-making, authentic leaders can reduce stress and burnout, encouraging educators to invest energy, enthusiasm, and dedication into their work (Hoy and Tschannen-Moran, 2001).

5.2. Psychological capital and work environment

The study also found that psychological capital is positively associated with work engagement among educators. Educators with higher levels of psychological capital—self-efficacy, hope, optimism, and resilience—were more likely to report higher levels of work engagement. This finding aligns with previous studies in educational contexts (Bakker et al., 2014), where psychological capital has been shown to enhance educators' ability to handle challenges and stay motivated in their roles. Luthans and Youssef (2007) also discussed how authentic leadership can foster psychological capital, leading to increased work engagement in various settings, including education. Educators with strong psychological capital are better equipped to remain dedicated to their work, even in difficult circumstances, leading to sustained engagement and improved performance.

In Makhado Municipality, where educators may face resource shortages and other challenges, those with higher levels of psychological capital are more likely to demonstrate resilience, optimism, and hope, allowing them to cope effectively with these challenges and remain committed to their teaching roles.

5.3. Authentic leadership and psychological capital

A key finding from this study is that authentic leadership has a significant positive impact on psychological capital. Avolio et al. (2009) alluded that authentic leadership contributes to psychological capital, which can enhance employee engagement in organizational change. Burch and Guarna (2014) also connect authentic leadership with psychological capital and engagement emphasizing its relevance in educational institutions. Educators who perceive their leaders as authentic tend to have higher levels of self-efficacy, hope, optimism, and resilience. This result supports the theoretical framework suggesting that authentic leadership behaviors, such as providing support, fostering self-awareness, and engaging in transparent decision-making, contribute to developing educators' psychological resources (Gardner et al., 2011).

In the specific context of Makhado Municipality, where educators often face high-stress levels and limited resources, authentic leadership can act as a catalyst for

building psychological capital. Through supportive leadership and a focus on positive outcomes, educators can develop the psychological tools needed to manage adversity and remain motivated, which is crucial for enhancing their well-being and work engagement.

5.4. Psychological capital as a mediator

The study further found that psychological capital mediates the relationship between authentic leadership and work engagement among educators. This implies that authentic leadership indirectly influences work engagement through its impact on psychological capital. The findings suggest that authentic leadership not only motivates educators directly but also enhances their psychological capital, boosting their engagement at work. This mediation effect is in line with the work of Avey et al. (2010), who found that leaders who foster positive work environments also promote the development of psychological resources that lead to increased engagement and performance.

For educators in Makhado Municipality, this implies that interventions to enhance authentic leadership behaviors can be instrumental in improving psychological capital, ultimately leading to better work engagement. By investing in leadership training that focuses on authenticity, school leaders can foster an environment that cultivates hope, resilience, and self-efficacy among educators, improving their ability to engage with their work and overcome challenges.

6. Conclusion

This study has made several key contributions to understanding the dynamics between authentic leadership, psychological capital, and work engagement in the context of Makhado Municipality, Limpopo Province. The research highlights the significant role that authentic leadership plays in fostering psychological capital and enhancing work engagement among educators.

The key findings are:

Authentic leadership is positively related to work engagement, meaning that educators who perceive their leaders as authentic are likelier to be highly engaged in their work. Psychological capital is positively related to work engagement, suggesting that educators with higher levels of self-efficacy, hope, optimism, and resilience are more engaged in their roles. Authentic leadership positively influences the development of psychological capital among educators. Psychological capital mediates authentic leadership and work engagement, implying that authentic leadership improves educators' psychological resources, enhancing their work engagement.

Implications for Practice:

Leadership Development: The findings suggest that professional development programs for school leaders in Makhado Municipality should focus on enhancing authentic leadership behaviors, such as fostering transparency, ethical decision-making, and emotional support. This will not only improve the work environment but also contribute to the psychological well-being of educators.

Psychological Capital Training: Given the importance of psychological capital,

educators could benefit from training programs to boost self-efficacy, resilience, hope, and optimism. Such programs could be incorporated into teacher professional development initiatives to build educators' capacity to engage more effectively with their work.

Supportive Work Environments: Schools in Makhado Municipality, particularly in resource-constrained settings, should aim to create supportive, trust-based environments where teachers feel valued and empowered. This environment will foster the development of psychological capital and lead to better engagement, even in the face of challenges.

In conclusion, authentic leadership fosters educators' psychological capital and enhances their work engagement. This research provides valuable insights into how leadership development and psychological capital-building interventions can improve teacher well-being and performance, especially in Makhado Municipality, where educators face unique challenges.

Recommendations for Future Research:

Future studies could further explore the longitudinal impact of authentic leadership on work engagement and psychological capital to examine whether these relationships hold over time. Additional research could investigate how cultural factors in South Africa influence the relationship between leadership styles and educator outcomes, as the cultural context may play a significant role in shaping leadership effectiveness and educators' responses to leadership. Qualitative studies could complement the findings by providing deeper insights into how educators perceive authentic leadership and its effects on their engagement and psychological capital.

Supplementary materials: Supplementary **Table S1**. Demographic Information; Supplementary **Table S2**. Authentic leadership; Supplementary **Table S3**. Psychological capital; Supplementary **Table S4**. Work engagement.

Author contributions: Conceptualization, KM and KK; Methodology, KM; Software, KK; Validation, KM and KK; Formal analysis, KM; Investigation, KM; Resources KK, Data curation, KM and KK; Writing, KM and KK; Review and editing, KK; Supervision, KK; Project administration, KM. All authors have read and agreed to the published version of the manuscript.

Disclaimer: The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or positions of any affiliated agency of the authors.

Conflict of interest: The authors declare no conflict of interest.

References

Adkins, M. (2023). The Impact of Shared Governance on Work Engagement and Job Satisfaction.

Asia, T (2018). The Impact of Psychological Capital on the Job Performance of Workers: A Case Study of the Algerian Electricity and Gas Distribution Company "Directorate of Distribution of Ouargla," (Published Master thesis), Kassadi Murbah University-Ouargla, Faculty of Economic and Commercial Sciences and general management - Department of Management Sciences, Algeria.

Avey, J. B., Luthans, F., Smith, R. M., and Palmer, N. F. (2010). Impact of positive psychological capital on employee well-being

over time. Journal of occupational health psychology, 15(1), 17.

Avey, J. B., Reichard, R. J., Luthans, F., and Mhatre, K. H. (2011). Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance. Human resource development quarterly, 22(2), 127–152.

Avey, J. B., Wernsing, T. S., and Luthans, F. (2008). Can positive employees help positive organizational change? Impact of psychological capital and emotions on relevant attitudes and behaviors. The journal of applied behavioral science, 44(1), 48–70.

Avolio, B. J., and Gardner, W. L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. The Leadership Quarterly, 16(3), 315–338.

Avolio, B. J., Walumbwa, F. O., and Weber, T. J. (2009). Leadership: Current theories, research, and future directions. Annual review of psychology, 60(1), 421–449.

Avolio, B.; Gardner, W., L.; Walumbwa, F, et al. (2004). "Unlocking the mask: A look at the process by which authentic leaders impact follower attitudes and behaviours" Management Department Faculty Publications. 156. https://digitalcommons.unl.edu/managementfacpub/156

Bakker, A. B., Demerouti, E., and Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD–R approach. Annu. Rev. Organ. Psychol. Organ. Behav., 1(1), 389–411.

Bakker, A.B. and Demerouti, E., 2008. Towards a model of work engagement. Career Development International, 13(3), 209–223.

Bandura, A. (2023). Cultivate self-efficacy for personal and organizational effectiveness. Principles of Organizational Behavior: The Handbook of Evidence-Based Management 3rd Edition, 113–135.

Bell, E., and Bryman, A. (2007). The ethics of management research: an exploratory content analysis. British journal of management, 18(1), 63–77.

Burch, T. C., and Guarana, C. L. (2014). The comparative influences of transformational leadership and leader–member exchange on follower engagement. Journal of leadership studies, 8(3), 6–25.

Campbell, D. J., and Nobel, O. B. Y. (2009). Occupational stressors in military service: A review and framework. Military Psychology, 21(sup2), S47–S67.

Carter, W. R. (2011). Motivating engaging performance: a longitudinal field experiment of self-efficacy at work (Doctoral dissertation, Macquarie University).

Cavus, M. F., and Gokcen, A. (2015). Psychological capital: Definition, components and effects. Journal of Education, Society and Behavioural Science, 5(3), 244–255.

Chan, David. "Interactive effects of situational judgment effectiveness and proactive personality on work perceptions and work outcomes. 2 (2006): 475.

Dick, G., and Metcalfe, B. (2001). Managerial factors and organisational commitment-A comparative study of police officers and civilian staff. International journal of public sector management, 14(2), 111–128.

Gardner, W. L., Cogliser, C. C., Davis, K. M., and Dickens, M. P. (2011). Authentic leadership: A review of the literature and research agenda. The Leadership Quarterly, 22(6), 1120–1145.

George, B. (2003). Authentic Leadership: Rediscovering the Secrets to Creating Lasting Value. San Francisco, CA: Jossey-Bass.

Hannah, S. T., Perez, A. L., Lester, P. B., and Quick, J. C. (2020). Bolstering workplace psychological well-being through transactional and transformational leadership. Journal of leadership & organizational studies, 27(3), 222–240.

Harter, J. and Adkins, A. (2015). What great managers do to engage employees. Journal of Harvard Business Review, 1–5.

Harvey, P., Martinko, M. J., and Gardner, W. L. (2006). Promoting authentic behavior in organizations: An attributional perspective. Journal of Leadership & Organizational Studies, 12(3), 1–11.

Hoon Song, J., Kolb, J. A., Hee Lee, U., and Kyoung Kim, H. (2012). Role of transformational leadership in effective organizational knowledge creation practices: Mediating effects of employees' work engagement. Human resource development quarterly, 23(1), 65–101.

Kahn, W. A. (2000). Psychological conditions of personal engagement and disengagement at work. Academy of Management Journal 33, 692–724.

Kahn, W.A. and Heaphy, E.D., (2014) 'Relational context of personal engagement at work', in C. Truss, R. Delbridge, K. Alfes, A. Shantz & E. Soane (eds.), Employee engagement in theory and practice, 82–96, Routledge, New York

Keles, H. N., Ozkan, T. K., and Bezirci, M. (2011). A Study on The Effects of Nepotism, Favoritism And Cronyism On Organizational Trust In The Auditing Process In Family Businesses In Turkey. International Business& Economics Research

Journal (IBER), 10(9), 9–16. https://doi.org/10.19030/iber.v10i9.5622

Lakens, D. (2022). Sample size justification. Collabra: psychology, 8(1), 33267.

Leroy, H., Anseel, F., Gardner, W. L., and Sels, L. (2015). Authentic leadership, authentic followership, basic need satisfaction, and work role performance: A cross-level study. Journal of Management, 41(6), 1677–1697.

Luthans, F. and Avolio, B.J. (2003). Authentic Leadership: A Positive Developmental Approach. In: Cameron, K.S., Dutton, J.E. and Quinn, R.E., Eds., Positive Organizational Scholarship, Barrett-Koehler, San Francisco, 241–261

Luthans, F. Organizational Dynamics, 33, 143–160.

Luthans, F., and Youssef, C. M. (2004). Human, social, and now positive psychological capital management: Investing in people for competitive advantage.Occupational

Luthans, F., and Youssef, C. M. (2007). Emerging positive organizational behavior. Journal of Management, 33(3), 321–349.

Luthans, F., (2002). The need for and meaning of positive organizational behaviour. Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 23(6), 695–706.

Luthans, F., Avey, J. B., Avolio, B. J., and Peterson, S. J. (2010). The development and resulting performance impact of positive psychological capital. Human resource development quarterly, 21(1), 41–67.

Luthans, F., Avey, J.B. and Patera, J.L., (2008). Experimental analysis of a

Luthans, F., Avey, J.B., Avolio, B.J., et al. (2006). Psychological capital development: toward a micro-intervention. Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 27(3), 387–393.

Luthans, F., Avolio, B. J., Avey, J. B., and Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. Personnel Psychology, 60(3), 541–572. https://doi.org/10.1111/j.1744-6570.2007.00083.x

Mercer, S. (2011). Language learner self-concept: Complexity, continuity, and change. System, 39(3), 335–346.

Morris, D. B., Usher, E. L., and Chen, J. A. (2017). Reconceptualizing the sources of teaching self-efficacy: A critical review of emerging literature. Educational psychology review, 29, 795–833.

Neider, L. L., and Schriesheim, C. A. (2011). The authentic leadership inventory (ALI): Development and empirical tests. The leadership quarterly, 22(6), 1146–1164.

Özkalp, E. (2009). A New Dimension in Organizational Behavior:. Positive (Positive) Organizational Behavior Approach and Topics. In 17th National Management and Organization Congress Proceedings Book ss (Vol. 491, p. 498).

Paul, F. A., Banerjee, I., and Ali, A. (2023). Psychological Capital and Well-Being beyond the Workplace: A Conceptual Review. Indian Journal of Psychiatric Nursing, 20(1), 76–84.

Puni, A., and Hilton, S. K. (2020). Dimensions of authentic leadership and patient care quality. Leadership in health services, 33(4), 365–383.

Rayton, B.A. and Yalabik, Z.Y., (2014). Work engagement, psychological contract breach and job satisfaction. The International Journal of Human Resource Management, 25(17), 2382–2400.

Robertson, I. T., Birch, A. J., & Cooper, C. L. (2012). Job and work attitudes, engagement and employee performance: Where does psychological well-being fit in?. Leadership & Organization Development Journal, 33(3), 224-232.

Romano, D., Zemon, V., and Foley, F. W. (2023). Age-related differences in the severity of sexual dysfunction symptoms and psychological distress in individuals with multiple sclerosis. Multiple Sclerosis and Related Disorders, 79, 105011.

Saks, A. M. (2019). Antecedents and consequences of employee engagement revisited. Journal of Organizational Effectiveness: People and Performance, 6(1), 19–38.

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 25(3), 293-315.

Schaufeli, W. B., Bakker, A. B., and Salanova, M. (2003). Utrecht work engagement scale-9. Educational and Psychological Measurement.

Schaufeli, W. B., Salanova, M., González-Romá, V., and Bakker, A. B. (2002). The measurement of engagement and burnout: A two-sample confirmatory factor analytic approach. Journal of Happiness studies, 3, 71–92.

Schaufeli, W., (2012). Work engagement: What do we know and where do we go? Romanian Journal of Applied Psychology, 14(1), pp.3–10.

Schmidt, A. M., and DeShon, R. P. (2010). The moderating effects of performance ambiguity on the relationship between self-efficacy and performance. Journal of applied psychology, 95(3), 572.

Sebastian, A., and Hühn, M. P. (2023). Are Psychological Theories on Self-Awareness in Leadership Research Shaping Masters not Servant Leaders?.

Seligman, M. E. P. (2011). Flourish: A new understanding of happiness and wellbeing– and how to achieve them. London, UK: Nicolas Brealey.

Shirom, A. (2003). Job-related burnout: A review. In J. C. Quick and L. E. Tetrick (Eds.), Handbook occupational health psychology, 245–264. American Psychological Association. https://doi.org/10.1037/10474-012

Snyder, C. R., Lehman, K. A., Kluck, B., and Monsson, Y. (2006). Hope for rehabilitation and vice versa. Rehabilitation psychology, 51(2), 89.

Snyder, C.R., (2002). Hope theory: Rainbows in the mind. Psychological Inquiry,13(4),249–275.

Sweetman, D., and Luthans, F. (2010). The power of positive psychology: Psychological capital and work engagement. Work engagement: A handbook of essential theory and research, 54, 68.

Sweetman, D., S.; Luthans, F; Avey, J., B.; and Luthans, B., C. (2010). "Relationship between positive psychological capital and creative performance". Management Department Faculty Publications.139. http://digitalcommons.unl.edu/managementfacpub/139

Taylor, S. E., Kemeny, M. E., Reed, G. M., et al. (2000). Psychological resources, positive illusions, and health. American psychologist, 55(1), 99.

Truss, K. (2014). The future of research in employee engagement. The Future of Engagement Thought Piece Collection, 80.

Tschannen-Moran, M., and Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. Teaching and teacher education, 17(7), 783–805.

Van Scotter, J. R., and Motowidlo, S. J. (1996). Interpersonal facilitation and job dedication as separate facets of contextual performance. Journal of applied psychology, 81(5), 525.

Wagoner, B. (2017). The constructive mind: Bartlett's psychology in reconstruction. Cambridge University Press.

Walsh, F., (2003). Family resilience: A framework for clinical practice. Family Process, 42(1), 1–18.

Walumbwa, F. O., Avolio, B. J., Gardner, W. L, et al. (2008). Authentic leadership: Development and validation of a theory-based measure. Journal of management, 34(1), 89–126.

web-based training intervention to develop positive psychological capital. Academy of Management Learning & Education, 7(2), pp.209–221.