LEARNERS' AND SCHOOL LEADERS' UNDERSTANDING OF THE INFLUENCE OF NON-COGNITIVE SKILLS DEVELOPMENT ON ACADEMIC PERFORMANCE

by

CHRISTOPHER TUCKER

Student no. 36104701

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Supervisor: Professor O.C. Potokri

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DECLARATION

I declare that the research conducted and the ensuing report in this minor dissertation is my own and original work. In addition, I declare that the study findings have not been previously presented in its entirety or in part to obtain any qualification.

Christopher Neil Tucker

November 2024

DEDICATION

For Kirsty, Kacey, and Leah, as well as family and friends, who supported me and were my sounding board during challenging moments, my source of love, laughter, and encouragement.

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ABSTRACT

This dissertation investigates the influence of non-cognitive skills on academic performance, focusing on how these skills shape a learner's persistence, engagement, and achievement in primary school. Even though academic performance is frequently associated with cognitive ability and content knowledge, an increasing body of research indicates that non-cognitive factors - attributes, dispositions, social skills, interpersonal abilities, and mindset are equally, if not more, important than content knowledge when shaping a learner's academic performance, and college and career preparation. In this context, this research sought to study the relationship between non-cognitive skills and academic performance, to provide a thoughtful understanding of their importance in the educational experience.

The study was based on a qualitative case study method, exploring the experiences of learners and school leaders and their understanding of non-cognitive skills, focusing on how these skills influence academic performance. Interviews were held with learners, school leaders, and teachers. Data was also collected using observations and in-depth secondary data analysis from existing literature.

Significant findings have revealed that school leaders, teachers, and learners have acknowledged the importance of developing non-cognitive skills and how this development positively impacts academic performance. Guided by the theoretical framework of Growth Mindset, the study creates a foundation from which the development of non-cognitive skills can be understood, recognised, and facilitated.

Recommendations included focusing specifically on non-cognitive skills development and creating a standard by which these skills can be measured and aligned. It allows teachers to develop their own non-cognitive skills and ways in which these can be conveyed through further professional development. Along with this, schools and teachers have the opportunity to create themes by which learners can live and aspire.

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LIST OF ACRONYMS/ABBREVIATIONS

EQ emotional quotient

HoD Head of Department

IQ intelligence quotient

SQ social quotient

CHAPTER ONE :
INTRODUCTION

1.1 Background of the Study

Every person worldwide is endowed with unique skills that they can use in all aspects of their lives daily. These skills may be cognitive – skills that allow our brain to assist us in thinking, learning, reading, and writing; and non-cognitive skills, which assist us in creating relationships, developing interpersonal and social skills, and motivating us as humans to become better versions of ourselves.

Eskafi (2016) posits that cognitive skills necessitate deliberate mental engagement, such as thinking, reasoning, or remembering. Non-cognitive skills (also known as soft skills) may involve some level of intellect, but more indirectly and less deliberately than cognitive skills. These skills are intricately linked with an individual's personal interactions, temperament, attitudes, integrity, motivation, and personality.

Gabrieli, Ansell, and Krachman (2015:vii) suggest that non-cognitive abilities are likely no more challenging to develop than other generally valued skills we prioritize in building, such as literacy and mathematics. In fact, many experts contend that some non-cognitive competencies are indeed more flexible than cognitive competencies and persist throughout adolescence.

The overarching aim of education is to develop within individuals the suitable cognitive, behavioural, emotional, and spiritual competencies for adulthood. In this unpredictable and rapidly evolving generation, it is essential for an education system to equip students for personal growth, as well as the demands of the future, including the world of possible employment (Grant & Scherer, 2018).

Stankov and Lee (2014) have determined that in previous decades, academic success was primarily predicted by cognitive factors, including intelligence and academic abilities. However, more recent research in the education and social sciences fields by Ackerman (2017), Cunningham (2014), and Creswell (2013) has recognised and acknowledged the role that non-cognitive factors and skills also play in influencing educational achievement.

Countries worldwide have faced many challenges emerging from the COVID-19 pandemic, and intermittent lockdowns have drastically affected education during this time. Schools have had to adapt to ensure they could offer an educational product of a good standard, which included, at times, changing to a digital or remote education strategy and/or a hybrid strategy that allowed for both online and classroom teaching and learning.

A key limitation of emergency remote learning was the absence of direct, personal interaction between teacher and student; this was simply impossible with broadcasts (World Bank, 2021). The different strategies adopted by schools often allowed for cognitive skills to progress; however, the researcher believes that, more recently, non-cognitive skills development has not received the attention needed to encourage these skills in learners, nor foster the vital role that these skills play in the classroom.

It has become evident that researchers are shifting their focus towards non-cognitive skills (psychological factors) to account for variations in school performance. Academic performance mainly depends on students' levels of self-control or conscientiousness, and a notable rationale for individuals not reaching their full intellectual potential is often a lack of self-discipline. Measures of self-discipline tell us more about positive academic outcomes than traditional indicators, such as IQ (Duckworth and Seligman, 2005:939). Dweck (2011) concludes that educational interventions aimed at addressing key psychological factors can significantly enhance students' school experience and academic performance, contributing to improved core academic outcomes.

Farrington, Roderick, Allensworth, Nagaoka, Johnson, and Beecham (2012) identify that modifying non-cognitive factors in individuals may have limited long-term effectiveness when removed from their broader educational and social context. The case studies of school transitions underscore context's crucial role in enacting non-cognitive factors. Although this study is undertaken in a primary school, universities and employers have voiced the value of non-cognitive competencies in high school and beyond. I believe these skills offer a great benefit, irrespective of the level of education or type of employment a pupil pursues. This claim is supported by a study conducted in 2006, which summarises findings from a survey of 21st-century skills whose importance employers anticipated would rise in the future.

The study conducted by Casner-Lotto and Benner (2006:17) found that 11 out of the 12 factors identified by at least half of the surveyed employers as becoming increasingly important in the future were non-cognitive in nature.

Undeniably, educational achievement is affected by the crucial involvement of non-cognitive skills. However, considerable progress is still required to ensure that dependable measurement of these factors is carried out and non-cognitive competencies are built on, generalised across contexts, and sustained over time (Agarwal & Arya, 2021:5832). I believe that effective teaching can play a pivotal part in developing these skills within a school environment. Skills are interrelated and should be developed as an amalgamation and not independently of one another.

1.2 Rationale for the Study

As a dedicated teacher and primary school executive committee member, I have always been interested in working with people. I have been particularly interested in growing people's (mainly children's) confidence in themselves and their conduct in different situations. I feel that it is crucial to have confidence when facing new or trying situations. However, not all children are self-assured, and not all children have the tools to boost their confidence. It is imperative for schools to develop these skills to enhance the cognitive skills that children possess or are working towards.

Effective cognitive skills development cannot occur without the necessary non-cognitive skills being taught in parallel to them. Skills development is an ongoing and dynamic process, and the promotion of non-cognitive abilities in early childhood contributes significantly to the long-term benefits of education. At any given age, the level of cognitive and non-cognitive skills is dependent, to a meaningful extent, on the level of those skills which were invested in at younger ages (Kautz, Heckman, Diris, Ter Weel & Borghans, 2014:8). As a primary school teacher, I have a deep interest in the part that non-cognitive skills play in shaping the holistic school experience and development of children. Through experience, I feel that these skills have been neglected in the classroom, particularly at the back end of the COVID-19 pandemic, but also due to the use of numerous technological devices and the instant gratification society we live in. Ways in which people

previously connected have changed, and many skills that were once developed naturally have fallen away.

There is convincing evidence of a strong correlation connecting non-cognitive factors and positive developmental outcomes for young people. When developed collectively, competencies such as self-efficacy, meta-cognitive strategies, and motivation are influential in enhancing academic learning and contributing to success among youth (Gutman & Schoon, 2014:43).

Cunningham (2014:1) identifies that children who possess a strong sense of self-confidence and security in their identity are more inclined to embrace a growth mindset. This means they are more likely to be motivated to accept new challenges, persevere through setbacks, and learn constructively from mistakes. Furthermore, it is more probable that these children will advocate for themselves and seek assistance when necessary.

Many teachers presently acknowledge the influence of non-cognitive skills in helping pupils flourish. Evidence from a national teacher survey conducted in the United States in 2013 indicates that 93% of participating teachers feel it is vital for schools to encourage the development of non-cognitive skills actively. Additionally, 88% of the schools represented have already implemented initiatives to develop these competencies among their students (Gabrieli et al., 2015:4).

All schools throughout South Africa - and indeed around the world - are different. Teachers in these schools differ, too, as do the backgrounds of the learners, their families, and the greater school community. The objective of this study will be to assist in determining how academic performance is affected through the development of non-cognitive skills. I anticipate that the findings may offer assistance to many stakeholders in education, with a priority of benefiting learners in our schools.

1.3 Statement of the Problem

Schools and how they function affect the performance of learners throughout South Africa. A small number of schools provide learners with a world-class education,

preparing them for future success. For various reasons, many schools are seen as dysfunctional, not allowing learners the opportunity to achieve their full potential. This inequality in education provision has a dramatic effect on thousands of schoolchildren. According to Amnesty International (2020), education has significant potential to reduce disparities. While South Africa has made notable progress over the past two decades in expanding access to education for previously disadvantaged children across all levels, this expansion has not necessarily translated into high-quality educational experiences for everybody. Consequently, the education system continues to reflect and reinforce the broader socio-economic disparities within the country.

It is of grave concern that non-cognitive skills development in a post-pandemic world is not taking place in primary schools. As previously mentioned, teachers attach great value to these skills, but I feel that not enough emphasis is being placed on them in the classroom. The focus of education has shifted to concentrating primarily on academics and cognitive skills, and hastily moving through academic learning outcomes to the detriment of promoting non-cognitive skills in learners.

A big question for the future that many countries will have to deal with, is how their education systems will be able to evolve to more effectively support the development of non-cognitive skills, thereby equipping learners with a versatile skill set enabling them to thrive and adapt in the rapidly changing landscape of the fourth industrial revolution (Katan, 2017:1). In addition to acquiring content knowledge and academic skills, students will also have to cultivate a range of sets of attitudes, skills, behaviours and strategies that are essential to academic success, although not necessarily captured by cognitive assessments (Farrington et al., 2012:4).

This research focused on how non-cognitive skills are being developed in schools and to what extent they affect learners' academic performance in a selected private school in Benoni to make a meaningful contribution to correcting this situation.

1.4 Research Questions

1.4.1 Main research question

What are the understandings of learners and school leaders about the influence of non-cognitive skills on academic performance?

1.4.2 Sub-research questions

1. How do schools include the development of non-cognitive skills in the curriculum?
2. What value do school leaders place on including learners' non-cognitive skills development in the context of academic performance?
3. How do the school learners perceive how non-cognitive skills influence their academic performance?
4. What are school leaders' perceptions of the influence of non-cognitive skills on the academic performance of learners?
5. What recommendations can be made for non-cognitive skills development and academic enhancement?

1.5 Research Objectives

1.5.1 Main research objective

To explore the understandings of both learners and school leaders about the influence of non-cognitive skills on academic performance.

1.5.2 Sub-objectives

1. To investigate how schools include the development of non-cognitive skills in their curriculum.
2. To ascertain the value school leaders place on including learners' non-cognitive skills development.
3. To understand the learners' perceptions about how non-cognitive skills influence their academic performance.
4. To examine the school leaders' perceptions and understandings of the influence of non-cognitive skills on learners' academic performance.

5. To recommend, based on the findings, ways in which non-cognitive skills development influences academic enhancement

1.6 Overview of the research methodology

This research uses a qualitative case study design to explore the influence of non-cognitive skills on academic performance in a primary school context. Purposive sampling was employed to select participants, ensuring relevant insights. Semi-structured interviews and school observations assisted in gathering the data, while thematic analysis was used to identify and interpret patterns in the data. Ethical clearance was obtained, and informed consent and confidentiality were assured for all participants.

1.7 Delimitations of the Study

The extent of the study is confined to an Independent primary school in the Benoni area. I am familiar with many independent and government schools in Benoni, and making this selection should not limit my conclusions. My overall experience as an educator and the knowledge I have gained about non-cognitive skills development through my literature study will allow me to conduct this study confidently.

1.8 Structure of the dissertation

This dissertation is structured into five chapters, each contributing to a coherent investigation of the influence of non-cognitive skills on academic performance.

- Chapter one introduces the research problem, outlines the aims and objectives, and explains the importance of the study in an educational context.
- Chapter two reviews the relevant literature and examines theoretical frameworks and empirical studies related to the problem.
- Chapter three details the research approach and methodology, the research design, data collection strategies, and data analysis.

- Chapter four analyses the research findings, underlining key patterns, relationships, and themes emerging from the data.
- Chapter five interprets the results in light of the literature, considers their implications, and offers recommendations for practice and further research.

1.9 Chapter Summary

This chapter provided an overview of the study about learners and school leaders' understanding of the influence of non-cognitive skills development on academic performance. A background to the research and the rationale for the study have been shared. A problem statement accompanying the research questions has been presented, and a discussion about the delimitations of the study has been included. The following chapter focuses on a comprehensive review of the relevant literature and an outline of the study's theoretical framework.

CHAPTER TWO :
LITERATURE REVIEW

2.1 Introduction

I believe that school learners' abilities are multidimensional and that these abilities and skills are shaped by teachers and school and home environments. Teachers and these environments affect learners' cognitive skills development and academic ability (most often reflected through test scores and grades at the end of a term), as well as their non-cognitive (soft) skills development, including their character, social skills, motivation, effort, and tolerance, to name but a few.

Non-cognitive skills are essential for students as they allow teachers to achieve high standards through equity. Teachers should create systems and practices that acknowledge that all individuals have different needs and requirements and provide support to help students from diverse backgrounds fully engage with and benefit from a conducive learning environment in the classroom (Paul, 2019:209).

Non-cognitive abilities may be valuable in meaningfully mitigating or reversing delays and deficits in cognitive development and academic achievement. These abilities may also complement and enhance efforts to improve learning outcomes (Rosen, Glennie, Dalton, Lennon & Bozick, 2010:1).

Skills serve as enablers and equip individuals with the capacities to function effectively. Higher levels of skill development contribute to enhanced social inclusion, increased economic and social mobility, improved productivity, and overall well-being. They empower individuals with the agency to shape their own lives, create additional competencies, and flourish (Kautz et al., 2014:4).

2.2 Critical Review of Related Literature

2.2.1 Account of non-cognitive skills

Schools are instrumental in shaping the development of children, extending beyond the transmission of content knowledge and enhancing cognitive abilities. Educational institutions, with related interventions, serve as a platform for imparting values and developing non-cognitive skills (Cheng, 2016:40). A precise definition of non-cognitive skills from Robert (2016) would be “those abilities that fall outside the domain of cognitive functions such as language, planning, memory, attention, and thinking skills. Instead, they encompass attributes such as empathy, emotional maturity, interpersonal competence, and communication. Non-cognitive skills significantly influence an individual’s overall behaviour”.

Siddiqui and Ventista (2018) advocate using the term skills rather than abilities, constructs, or traits as this emphasises their malleable nature and the potential for development, rather than suggesting they are fixed characteristics. Also, they consider the following non-cognitive skills as particularly significant: social skills, grit/resilience, emotional well-being, motivation and focus of control, self-efficacy and self-esteem, and self-regulation.

Despite the complex nature of non-cognitive skills, most school systems use 3- or 4-point scales to detail the achievement of these skills. Using a rating of only three or four points makes it easy to complete and eases the workload of teaching staff, but does not represent the complexity of non-cognitive skills (Merchant, Klinger & Love, 2018:10).

Over the years, a range of different names for non-cognitive skills have been used. As Jones, Bailey, Brush, Nelson, and Barnes (2016) claim, many other fields and disciplines have contributed to what we know about this vast area. These include character education, personality, 21st-century skills, social-emotional learning, and soft skills. While this diversity has positively contributed to research and practice, it has also convoluted our understanding of this area (Jones et al., 2016:2). Researchers agree that the name non-cognitive does not give due credit to something so important. Fickel (2015) suggests that the term non-cognitive is inherently problematic, as defining a concept by what it is not is displeasing. Furthermore, the label may be misleading as it may evoke associations

with feelings, emotions, and intuitions when referenced with something more cognitive (Fickel, 2015:1).

Creating a foundational framework is critical in facilitating the effective development of non-cognitive skills. Kautz et al. (2014) suggest that this initial foundation of skills will encourage lifelong learning and positive engagement in both school and society. This pragmatic strategy is an approach that prioritises early intervention and support, as opposed to waiting for problems to arise.

IQ and standardized achievement tests do not sufficiently reflect the level of non-cognitive skills – such as motivation, personality traits, character, goals, and preferences that are valued both in educational settings and the labour market. For many outcomes, the predictive capacity of these non-cognitive skills is comparable to, or even surpasses, that of cognitive abilities.

Skills tend to remain consistent across different contexts and incentive structures, although manifestations of skills vary depending on the surrounding conditions. Although they exhibit a degree of stability at any given age, skills are not unchangeable characteristics or fixed traits. While genetic factors contribute to skill formation, they are influenced further by environments such as school, family, and peer networks. During early childhood, both cognitive and non-cognitive abilities demonstrate considerable malleability, while in the adolescent period, non-cognitive skills tend to be more responsive to change than cognitive skills. The varying flexibility across developmental stages has critical implications for designing targeted educational policies (Kautz et al., 2014:3). The role of the classroom in a young pupil's life is of great importance to their holistic development. Borghans, Duckworth, Heckman, and Ter Weel (2008) support this view, noting that schools not only contribute to the acquisition of academic knowledge and cognitive development, but also to the transmission of social norms and value systems that shape the personalities, behavioural tendencies, and characters of their students.

The leadership structures of the school and those in positions to make decisions regarding how the academic programs are structured must be well informed about how to incorporate these value systems into their programs. In his study on successful school

leadership, Gurr (2015) concurs that in the current educational context, it is essential to cultivate teaching expertise, implement assessment practices that meaningfully inform the teaching planning programme, foster greater student agency and ownership of learning, effectively implement contemporary learning technologies, and design learning environments that are inviting and conducive of high quality teaching is essential in the current educational landscape.

The teacher's role in carrying out managerial decisions and the ability to take the lead must not be underrated. Furthermore, teachers have a leadership role to play, as well. Andrews and Crowther (2006) determine teacher leadership as a form of professional practice that promotes ethical pedagogical action to achieve whole-school success. It derives from the unique teaching capacity to construct and convey meaning for learners of all ages - children, adolescents, and adults – and contributes meaningfully to improving the broader community's quality of life over time.

2.2.2 Why do non-cognitive skills matter?

In the present era, education must progress (grow) from the mere transmission of knowledge and instead, focus on empowering individuals to become full participants in all aspects of society (Vazquez, Milasi, Gomez, Napierala, Bottcher, Jonkers, Beldarrain, Pabollet, Bacigalupo, Biagi & Giraldez, 2019:40). It is of great importance to me that there is a shift in focus towards developing these skills as a means to supplement cognitive development. Empirical economic research has prioritized literacy metrics in reading, mathematics, and science, often overlooking the significance of other abilities loosely related to cognitive ability and equally vital as cognitive skills for individual growth and economic achievement. These competencies, such as motivation, leadership, and social skills, are generally classified as non-cognitive and are associated with personality traits (Brunello & Schlotter, 2011:4).

Researchers believe that in the educational process and employment potential, non-cognitive factors and abilities are equally – if not more – important than cognitive skills (Khine & Areepattamannil, 2016:4). The integration of social and emotional learning as a dedicated area of focus for the curriculum, and as a cross-curricular theme, is strongly

advocated as a means to develop non-cognitive competencies among students (Cefai, Bartolo, Cavioni & Downes, 2018:17).

Heckman, Stixrud, and Urzua (2006) demonstrate that changes in non-cognitive abilities can affect a variety of socio-economic outcomes comparable to, or even greater than, those associated with equivalent changes in cognitive skills. Additionally, research from Cunha, Heckman, and Lochner (2006) indicates that non-cognitive skills remain more adaptable during later developmental stages than cognitive skills, which tend to stabilise by around the age of eight. The question is raised as to whether focusing on cognitive skills in schools is more important or if there should be a shift towards more targeted interventions that invest in non-cognitive skills, which could be more effective.

Designing and implementing effective policies aimed at promoting non-cognitive skills involves the input of a wide range of expertise across many academic disciplines. It will require open-minded thinking and acknowledging the complementary roles that cognitive and non-cognitive skills are crucial in shaping successful life outcomes. There is a complex interplay between skill sets, and isolating a single dimension of human capabilities to focus on only one developmental phase risks missing fundamental aspects of human performance and development (Kautz et al., 2014:3).

It is possible that some schools have not given necessary attention of late to the enhancement of non-cognitive skills, and this may be due to the following reasons:

- Covid-19
- Loss of academic time
- Online learning
- Attitudes of stakeholders:
    - Principals/school leaders
    - Teachers
    - Learners
    - Parents

Non-cognitive skills contribute to the advancement of cognitive development. Compared to cognitive skills, non-cognitive skills have a higher degree of malleability over extended

life cycle periods. This is attributable, in part, to the emergence of new dimensions of non-cognitive skills as individuals mature – dimensions that remain susceptible to influence and development (Kautz et al., 2014:78).

A Jackson (2018:3) study showed that ninth-grade teachers who effectively enhanced their students' non-cognitive skills – such as adaptability, motivation, and self-regulation – significantly influenced their students' educational pathway. Students exposed to these developments demonstrated improved attendance and academic performance, with higher graduation rates than their peers. Additionally, these students exhibited lower rates of suspension and grade retention. These positive outcomes endured through high school.

From a conceptual viewpoint, non-cognitive skills are seen as resources that can be used to attain incremental goals and are largely independent of cognitive skills. For example, the abilities to control impulses and emotions, maintain long-term motivation, and cooperate with others are essential skills over and above purely cognitive skills such as literacy and numeracy (Rammstedt, Lechner & Danner, 2024).

It is imperative that teachers, who spend most of their time with learners while at school, are willing to grow these skills within each learner.

2.2.3 The Big Five non-cognitive skills

Several traditional and modern studies in psychology are based on the five basic personality dimensions. These personality traits are seen as the basis for all non-cognitive skills. The Five-Factor personality framework, commonly referred to as the Big Five Model, is the most extensively endorsed theoretical model of personality among psychologists. The theory posits that individual personality can be refined into five fundamental factors: extraversion, agreeableness, openness, conscientiousness, and neuroticism (Lim, 2020:1).

Although researchers have not reached full agreement as to what specific skills should be included in this overarching term (non-cognitive skills), many studies on these skills have used as a guide the Big Five Model, which, to date, is the most validated and extensively used model of personality (Rammstedt et al., 2024)

Psychologists mainly assess non-cognitive skills through self-report questionnaires or observer-based evaluations. They have a widely recognised classification of non-cognitive skills named The Big Five personality model, often referred to by the acronym OCEAN. This model encompasses five key aspects: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism (Borghans et al., 2008:984). According to Costa and McCrae (1992), some psychologists conceptualise the Big Five as the “longitude and latitude” of the non-cognitive domain, within which all closely defined skills can be systematically classified.

The Big Five model does not offer an entirely exhaustive account of human character. Still, they are widely referred to as the Big Five because they capture a broad range of personality-related descriptors. The five factors function as overarching categories encompassing numerous related traits and behavioural tendencies (Ackerman, 2017). It is beneficial for teachers to possess and develop these skills with their students. Rockoff, Jacob, Kane, and Staiger (2011) suggest that teachers’ effectiveness is enhanced when educators possess a well-rounded combination of competencies, including character traits aligned with the Five Factor model, such as extraversion and conscientiousness. Teachers, who themselves demonstrate strong non-cognitive abilities, also appear to be more adept at improving non-cognitive skills in their students.

Each personality trait is characterised by its own distinct advantages and potential limitations. According to Lebowitz (2016), individuals who demonstrate elevated openness to experience are often passionate about learning, enjoy the arts, engage in creative pursuits, and embrace meeting new people. Those with high conscientiousness are typically successful in academics and careers, excel in leadership roles, and are determined and methodical in pursuing their goals. People high in extroversion seek social interactions, are often the “life of the party,” and are action-oriented rather than reflective. Individuals who score high in agreeableness are generally well-liked and respected, sensitive to others' needs, and show affection toward friends and loved ones and empathy toward strangers. Conversely, individuals high in neuroticism tend to experience anxiety and nervousness, low self-esteem and sadness, often displaying unpredictable or self-conscious tendencies.

A substantial body of research demonstrates that non-cognitive skills significantly predict diverse life outcomes, including educational attainment, labour market outcomes, and overall health. In numerous instances, the predictive capacity of these skills exceeds measures of cognitive capacity. Among the dimensions of the Big Five model, Conscientiousness—the inclination to be prepared and structured, responsible, and meticulous—is the most extensively prognostic through a range of outcomes (Kautz et al., 2014:20). Almlund, Duckworth, Heckman and Kautz (2011) add that conscientiousness is equally as strong a predictor of the number of years of formal education completed, as traditional measures of intelligence. Farrington et al. (2012) agree that conscientiousness is the sole personality trait that exhibits a reliable correlation with academic achievement.

2.2.4 Interventions for developing non-cognitive skills

Can non-cognitive skills be changed? Are personality traits malleable? There is a range of evidence indicating that non-cognitive skills remain malleable during later stages of childhood and may even be more pliable than in younger children. Given that this contrasts with the decreasing malleability of cognitive skills after childhood, one conclusion drawn by commentators is that remediation strategies focused on adolescents are to place a significant emphasis on non-cognitive skills since these can affect educational attainment and later employment outcomes (Siddiqui and Ventista, 2018). Olsson, McGee, Nada-Raja, and Williams (2013) also argue that developing social skills and a sense of social connectedness during early childhood are more reliable predictors of adult well-being in adulthood than academic performance during school.

A supportive network of peers, a positive school setting, and an engaged community foster the development of characteristics linked to strong social competence and successful communication. Notably, school engagement (or school connectedness) is thought to have an inverse relationship with the prospect of engaging in risk-taking behaviours (Siddiqui and Ventista, 2018). Gorard and Smith (2010) feel that schools function as a microcosm of broader society, providing opportunities to learn about mutual respect, trust, and societal expectations. Therefore, school policies must prioritise learner readiness to engage with a wider social environment effectively. Zynuddin, Kenayathulla,

and Sumintono (2023) agree that the school climate significantly influences student progress. A supportive and affirming educational environment is instrumental in inspiring the emergence of well-rounded and holistically developed students.

Interventions to enhance skills vary depending on the child's specific skill and developmental stage. Notably, non-cognitive skills demonstrate a higher degree of malleability at later developmental stages compared to cognitive skills (Kautz et al., 2014:2).

Various ways to develop learners' non-cognitive skills have been identified, and these include:

- Creating a pastoral care/inclusion programme within schools.
- Using school assemblies to discuss a different skill every week: In her research, Mehta (2016) maintains that "a well-executed school assembly constitutes a critical element of the school's educational programme. It can promote a positive school ethos that emphasises self-respect, care for others, and a commitment to excellence that must not be undervalued. School assemblies can positively contribute to learners' personal development and contribute to elevating academic and behavioral standards.
- Allowing learners to express themselves outside the classroom through sports and cultural activities. Eime, Young, Harvey, Charity, and Payne (2013) agree that involvement in sports for children and adolescents is connected with enhanced social and psychological well-being, more so than physical activity during leisure. Eime et al. (2013) confirm that the social and psychological benefits from participation in sports resulted from constructive collaborations with peers and other adults involved in such programmes. Because of the social conditions of team sports, these activities were more often associated with these psychological and social benefits.
- Incorporating non-cognitive skills into the academic programme. It is essential to me that non-cognitive skills are given the necessary attention at the primary school level, as a solid foundation in these skills allows learners to grow into confident young adults as they progress through their high school grades.

The debate may include the influence of a learner's IQ (intelligence quotient), as was the case in the past when many people placed great importance on a learner's IQ. I feel that a learner's EQ (emotional quotient) and SQ (social quotient) have just as significant an effect on the learner's academic performance and that IQ is not the sole factor. As Heckman and Rubenstein (2001:91) have mentioned, many examples illustrate how individuals with higher IQs have failed to succeed due to a lack of self-discipline. In contrast, those with lower IQs often succeed through self-discipline, persistence, and reliability.

Various findings have suggested that the school environment influences learners' cognitive, emotional, and behavioural development.

The improvement and preservation of non-cognitive skills are increased if the schooling atmosphere supports strengthening these skills. The skills learnt in the classroom must allow learners to use these skills in the real world. The following statement informs us that these skills can be taught and manipulated positively in individuals. Emerging evidence suggests that these non-cognitive skills have the potential to be developed through interventions in children and adolescents, potentially leading to various constructive and positive developmental outcomes. The indication is most substantial concerning improved academic outcomes (Gutman & Schoon, 2013:41). In their research, Feng, Han, Heckman, and Kautz (2021) believe that non-cognitive or socioemotional skills are significant predictors of life success and possess the capacity to be developed through intentional interventions. These skills are as influential as cognitive abilities in forecasting a range of life outcomes, such as educational achievement, earnings, employment, and good health. Interventions and education can also foster non-cognitive skills (Feng et al., 2021).

Teachers occupy a uniquely influential position, enabling them to serve as role models, imparting traits rooted in specific value systems, thereby shaping the development of their students (Berkowitz & Bier, 2007). Siddiqui and Ventista (2018) add that teachers must be adequately trained and consistently use experiential teaching methodologies. Students should be afforded consistent opportunities to refine the skills they acquire in groups and individually, in and outside the classroom.

Interventions have also shown that developing coping skills helps to decrease psychological concerns and anxiety.

Teaching learners to improve their academic performance needs more than raising their test scores; it means creating a learning space within schools that connects to learners' innate curiosity and intrinsic motivation to acquire knowledge. Schools must build learners' competencies, knowledge, and belief in their potential while equipping them with strategies, dispositions, and behavioral patterns necessary to realise their aspirations (Farrington et al., 2012:77).

In her article about including non-cognitive skills into educational policy frameworks, Garcia (2014) states that accountability mechanisms and policy directives must be expanded to reward the role of schools' and educators' involvement in advancing non-cognitive skills. By positioning the holistic development of learners at the core of education policy objectives, it becomes possible to enhance accountability through stimulating adjustments in the curriculum, professional development, broader educational practices, and assessment frameworks.

Teachers trained correctly to convey the necessary knowledge and skills to develop non-cognitive skills and schools held accountable for their pupils' holistic development are too few and far between. Garcia (2014) further asserts that incentives embedded within an expanded accountability framework should align with efforts to broaden the scope of the curriculum, fostering a supportive and relational school environment (particularly encouraging teachers' meaningful engagement with learners), and allocating sufficient time and resources for teachers to implement pedagogical strategies that encourage the development of both non-cognitive and cognitive skills.

The overall health and well-being of the pupils are paramount to their personal development of cognitive and non-cognitive attributes. Schools and their management and leadership can nurture their pupils' well-being. In their research on school climate, Knight and Duncheon (2020) maintain that a positive and supportive school climate contributes significantly to students' overall well-being and mental health by reducing stressors connected with the school environment and improving academic performance.

2.2.5 Academic performance

Academic performance has formed the traditional focus of the educational community. This outcome is closely related to a specific objective of the teaching-learning process – school achievement. (Von Stumm & Ackerman, 2013:841). Student academic performance reflects the outcomes of a learner's educational engagement at the end of a particular period of time. Also, it is considered to be the accomplishments reached concerning the student's proficiency of knowledge gained, acquisition of skills, and the demonstration of methodological competence (Potokri, 2011:47).

For this study, academic performance relates to the cognitive skills that learners grasp while at school. Du Plessis (2022) maintains that cognitive skills, also referred to as cognitive capabilities, functions, or abilities, are fundamental processes involved in acquiring knowledge, reasoning, problem-solving, and manipulating information. These skills are essential instruments enabling learning within individuals. When well developed, these skills enhance the ability to perform tasks with superior competence and ease. Conley (2015), Tough (2012), and Duckworth, Peterson, Matthews, and Kelly (2007) conclude that there is a growing body of evidence that non-cognitive factors - attributes, dispositions, social skills, interpersonal abilities, and mindset are equally if not more important than content knowledge when determining a student's college and career preparation. With growing evidence to support the positive effects of these attributes, there are increasing implications regarding how they promote learning.

Academic performance is related to goals that teachers and learners set to improve a learner's academic outcome.

Tadese, Yeshaneh, and Mulu (2022) define academic performance as the degree to which a student, teacher, or school achieves its predetermined short-term or long-term academic objectives. It is evaluated through ongoing assessment practices or reflected in a cumulative academic performance. Maturana (2002) agrees that academic performance is a key indicator in evaluating an educational system's efficiency, quality, and overall productivity. It reflects the various phases of an academic process to achieve educational success, an outcome that represents the goal of policy initiatives and educational stakeholders.

2.2.6 Non-cognitive skills and academic performance

Through much research, agreement has been reached that non-cognitive skills have a marked impact on school achievement and outcomes in the employment industry. The effect of these non-cognitive skills may be as momentous as that of cognitive skills. Garcia (2014) mentions that multiple studies identify the interdependent nature of cognitive and non-cognitive skills, indicating that efforts to enhance cognitive abilities may be limited if insufficient attention is paid to non-cognitive skills. Concentrating on non-cognitive skills can potentially improve core academic areas such as mathematics, reading, and writing.

Brunello and Schlotter (2011) believe that elevated cognitive assessment outcomes are not solely attributable to advanced cognitive abilities. Still, they are also influenced by heightened motivation levels and well-developed personal characteristics or non-cognitive skills. This perspective implies that the contribution of non-cognitive competencies may mediate the impact of cognitive skills on academic performance and economic development.

Farrington et al. (2012:15) believe that a substantial body of evidence supports the assertion that academic behaviours play a pivotal role in shaping course outcomes, suggesting that enhancing such behaviours can positively influence students' academic achievement. These behaviours are understood to be malleable and are affected by the classroom environment. Academic behaviours and mindsets are interconnected to a learner's academic performance and are determined by various non-cognitive factors or skills. Academic mindsets include a learner's self-perception, attitudes, and beliefs concerning learning and intellectual engagement (Farrington et al., 2012:28).

For a pupil to achieve academically, they need to know that they belong within a community (classroom or school) where learning takes place and that their results will be determined by the effort they put into their learning. This understanding of perseverance allows learners to understand that they can succeed at the tasks. The teacher plays a critically influential role in developing this understanding. As per Mohan-Chandar (2021), teachers in the 21st century must, through their leadership capabilities, lead and create a balance between the curriculum outcomes and developing problem-solving skills in

students to effectively navigate and become accustomed to the evolving demands of an uncertain future.

Farrington et al. (2012) conclude that academic performance, whether measured through grades or test results, encompasses more than the mere acquisition of subject knowledge. It also involves further student skills or non-cognitive attributes, including a "variety of attitudes, academic behaviours and strategic approaches essential for success in school and broader life outcomes". Duckworth and Seligman (2005) maintain that emotional states and personality traits impact the calibre of an individual's cognitive functioning and the extent of a child's learning within the school context.

Since non-cognitive skills are substantially significant and can be nurtured in schools, their development should be an explicit and intentional objective of public education. This objective, however, is often at odds with the prevailing emphasis on cognitive outcomes, which has limited the extent to which schools prioritise non-cognitive improvement and has been unsuccessful in effectively enhancing cognitive competencies. Very importantly, it impedes schools from fostering the holistic development of learners. (Garcia, 2014:4). Life skills programmes found in schools are often an add-on or supplementary curriculum, never taking centre stage in the academic programme. However, in some schools, it has been noticed that the development of life skills has been integrated more generally into the school curriculum. Siddiqui and Ventista (2018) propose an allegiance between life skills and moves towards pedagogical reform – more generally – towards education methods promoting higher-order cognitive capabilities including problem solving and critical thinking, and applying knowledge and understanding to "real" situations.

Enhancing non-cognitive skills during childhood lays a foundation for increasing the long-term benefits of education. Students demonstrating greater persistence tend to learn more. Both cognitive and non-cognitive skills at any given stage of development are influenced by the level of investment made into developing these skills at a younger age. (Cunha & Heckman, 2007:41). Bransford, Brown, and Cocking (2000) agree that, in actuality, cognitive and non-cognitive skills are interdependent and interact dynamically and continuously in fundamental ways to the learning process, such that meaningful cognitive development is unlikely to take place without this non-cognitive interaction.

2.2.7 Theoretical framework

The theoretical framework that informs this research is grounded in Dweck's (1988) Mindset Theory. The Implicit Theory of Intelligence, or Mindset Theory, posits that individuals typically adopt one of two mindsets regarding the nature of intelligence: a) an entity or fixed mindset, or b) an incremental or growth mindset (Dweck, 1986:41).

The origins of Mindset Theory can be traced back to the 1970s when Carol S. Dweck noticed marked variations in how children responded to setbacks and challenges (Dweck, 2012). As difficulties easily unsettled some children, they desperately tried to avoid them. Others appeared to pursue challenges and embrace them actively. Having been captivated by this examination and exploring for an explanation, the proposal of "implicit theories" was brought forth when, collaborating with her colleague Mary Bandura, they discovered that the child's interpretation of failure was shaped by their underlying beliefs about ability, and whether it is an inherent or fixed trait, or a characteristic that can be developed over time (Sassenberg & Vliek, 2019:187).

Research has shown that these implicit or mindset theories serve as predictors of a range of significant effects in the achievement and interpersonal domains, including academic success. The acceptance that an individual's personal attributes are malleable is commonly (however, not universally) more adaptive than those who perceive such traits as fixed (Bernecker and Job, 2019:1). The difference between the two theories within Mindset Theory has been summarised by Cote (2022) as follows:

An individual who possesses a growth mindset perceives talents, abilities, and intelligence as dynamic qualities that can be developed and enhanced through effort and learning. Conversely, a person with a fixed mindset regards these attributes as innate and fundamentally fixed.

A fixed mindset suggests that a challenge may be too difficult, impossible for us to solve, or beyond our skills. A fixed mindset implies that our skills are already established. For example, you cannot improve your intelligence as it is set at a certain level.

On the contrary, a growth mindset gives the opposite view that our skills are malleable. You can take action to improve your intelligence, no matter what level it may be today. A

growth mindset suggests individuals may overcome challenges with hard work and determination. The amount of work and effort may vary from person to person, but success can always be achieved.

Within educational contexts, fostering student development and promoting positive education is crucial to prepare future generations with durable and transferable competencies. Key intrapersonal constructs frequently explored in this domain include self-concept, grit, growth mindset, and deep processing strategies. These constructs appear to influence and affect student development similarly (Zynuddin et al., 2023).

Researchers, such as Sahlberg (2011), have examined over a decade's worth of research, which has considerably advanced our understanding of the mind, learning processes, and abilities that have vital implications for schools. In particular, this evidence challenges prevailing ability-based practices in schools. Some of the most academically and economically successful nations have structured their educational systems around a growth mindset, promoting the belief that learning is a gradual process shaped by sustained effort. It is essential to note the role that teachers can play in developing a growth mindset. Essentially, teachers must be at the forefront of developing this mindset change. In their research, Yu, Kreijkes, and Salmela-Aro (2022) state that teachers with a strong sense of self-efficacy are more likely to adopt a proactive approach in employing diverse approaches to enhance student learning, conveying the belief that students have the potential for growth and improvement.

Mindset theory is intricately linked to broader motivational frameworks (Dweck, 2017). Motivation is just one area representing non-cognitive skills development in the classroom.

Through his research, Oshunbiyi (2021) reveals that with the learner or growth mindset, the learner not only believes that they can grow their own attributes, but they are also looking for the change in thinking needed as the environment changes. Therefore, the learner mindset has learned how to learn and change their thinking towards the challenges they may face.

Hendrickson (2021) states that with the implementation of active learning strategies, which can enhance the quality of student learning, students' perceptions of their own

capabilities to thrive play a similarly influential role. Adding to this and creating a link to the importance of school climate, research conducted by Tuan, Chin, Tsai, and Cheng (2005) suggests that self-assurance and the school environment constitute two fundamental determinants of learner motivation. When strong self-assurance is coupled with active commitment, learners are more likely to devote further effort to academic assignments.

I believe incorporating a growth mindset in this research will contribute to defining how non-cognitive skills are developed and to what extent these affect academic performance. The intervention of the growth mindset conveys a captivating representation: the mind functions similarly to a muscle, becoming stronger and more proficient through continued intellectual challenges and learning (Aronson, Fried & Good, 2002:38).

The premise that intelligence has the potential to be changed, or the idea of a growth mindset to develop non-cognitive skills, will be the substance on which academic performance through the fostering of non-cognitive competencies can be established.

2.3 Chapter Summary

This chapter summarised the evidence and similar or related research about the influence of non-cognitive skills on learners' academic performance that has previously been conducted. We need to understand better how school leaders feel about this research and how to include the development of non-cognitive skills in our schools.

The discussion in the next chapter details the research methodology and research design used to collect participant data.

CHAPTER THREE :
RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methodological framework employed to investigate the relationship between non-cognitive skills and academic performance. Chapter One sets up the foundation of the research through the problem statement, research objectives, and the rationale for the research, followed by Chapter Two, which establishes theoretical findings through the literature review. Chapter Three details the research approach and methodology, the research design, data collection strategies, and data analysis.

3.2 Research Paradigm

I applied an interpretivist paradigm, which is ingrained in the belief that, according to Guba and Lincoln (2005), challenges the assumption that an objective, singular reality exists independently of human perception. Interpretive ontology adopts an anti-foundationalist stance, forming a philosophical basis for the research. It discards the idea of permanent universal principles for establishing truth and embraces knowledge as being formed by human experience.

Interpretivists maintain that reality is not singular or objective, but socially fabricated and multifaceted. Reality and truth are co-created through human interaction and understanding. Since reality is facilitated by individual perception, access to unfiltered and impartial reality is considered unachievable. Interpretive epistemology is personal (Rehman and Alharti, 2016).

Guided by the interpretivist paradigm, this research included various data collection strategies, including observations, secondary data, interviews, and focus group interviews, to explore a possible effect of non-cognitive skills on academic performance. This paradigm aligns with the research objectives, as it highlights the significance that individuals have been able to assign to their experiences.

The researcher and the actively and reciprocally engaged research participants are directly involved in the interpretivist paradigm. Burton, Brundrett, and Jones (2008) state

that the elements of subjectivity and bias are acknowledged and shared, and consequently, knowledge is constructed from multiple perspectives.

By adopting this approach, the study surveys the effect of non-cognitive skills on academic accomplishment, as experienced by the participants. It offers an ample, contextualised appreciation of the research problem. It provides an opportunity to understand and interpret human values and behaviour. The chosen paradigm also informs the research methods, ensuring the data collection and analysis procedures are consistent with the study's philosophical assumptions.

The ontological position that I have taken portrays that reality is multidimensional and ever-changing, which is depicted through the participants' views in the study. Per Scotland (2012), ontology is a philosophical domain examining the assumptions essential to our understanding of reality. It addresses what we contemplate as real and is linked to the essential characteristics of the investigated social phenomenon.

The range of research, as the literature review demonstrates, involves various areas, each interrelated and affecting one another. The importance of the reflective experience is identified, as well as the need for collaboration and support from individuals and the organisation.

My epistemological standpoint is that understanding and knowledge are created through the interactions between the researcher and the participants. In her research, Pretorius (2024) states that epistemology concerns the nature of knowledge and the methods through which knowledge is attained. Three predominant epistemological positions are recognised. The first asserts that reality is objectively comprehensible provided the correct tools are used to measure it. The second contends that reality is individually assembled within people’s minds. The third posits that reality cannot be fully comprehensible or understood, as it is found to be in a constant state of flux.

Throughout this research, the voices of the participants, the observations, and the secondary data have allowed for knowledge to be achieved or attained.

3.3 Research Approach and Methodology

McMillan and Schumacher (2010) define qualitative research as an extensive study that uses one-on-one or observation techniques. Qualitative research investigates and understands the meanings individuals attribute to their lived experiences (Creswell, 2013). Finlay (2011) maintains that qualitative inquiry seeks to illuminate the more nuanced and less ostensible meanings. Qualitative research seeks to examine the intricate nature of society. Characterised by an inductive approach, it focuses on exploratory enquiries including ‘why’, ‘how’ and ‘what’ questions rather than ‘how much’, and ‘how many’ enquiries favored by quantitative research. Besides, qualitative research is based on a person’s experiences. It deliberately avoids quantitative concentration with calculating, measuring, and predicting, instead prioritising deep exploration, description, comprehension, and interpretation of a social phenomenon.

In this research, a qualitative approach was suitable for exploring the multifaceted and context-dependent ways non-cognitive skills influence academic performance. These skills are innately subjective and better understood through learners' behaviours, perspectives, and experiences in their normal school surroundings. The research captured detailed accounts using qualitative methods such as interviews and participant observation, revealing the meanings teachers and learners attach to their actions. A response to emerging themes and perceptions, and a deeper understanding of the phenomena under investigation, were accomplished through qualitative processes.

3.4 Research Design

This research design serves as the strategy that guides the conduct with respect to the research. Mouton (2021) describes the research design as an outline or blueprint of how the research will be carried out. It offers a further framework for the systematic process through which the research is conducted, facilitating the attainment of the research objective or devising answers for the recognized research questions (Maree and Van der Westhuizen, 2011:33).

This qualitative research approach used a case study design to understand the influence of non-cognitive skills development on learners' academic performance. Case study research is particularly suitable for studies that necessitate an in-depth exploration of organisational procedures and processes (Hartley, 2014). The comprehensive qualitative narratives typically generated through case studies serve to explore and describe a variety of information from real-world contexts, and moreover, shed light on the subtle intricacies of such situations that will possibly elude discovery through survey or experimental research (Zaidah, 2007:4). It was therefore deemed appropriate for this research that a case study was employed, providing the prospect of examining a particular case widely and systematically. In this case, an independent primary school in Benoni.

3.5 Population of the Study

The study involved a population that constituted independent primary schools in the Benoni district, in the province of Gauteng, South Africa. Thomas (2023) states that the group of events, objects, or individuals that share particular attributes pertinent to the research focus can be defined as the research population. It constitutes the greater population from which a representative sample is selected. The delineation of this population is guided by the study's objectives and determined by the precise limitations or features being examined.

The following types of interviews were arranged for these groups:

1. One-on-One Interviews: For two Deputy principals, two HoDs, and four class teachers
2. Focus group interviews:
    - Group 1: nine grade 6 pupils, joined by a class teacher
    - Group 2: ten Grade 7 pupils, joined by a class teacher

Only independent schools were selected as the population, as they all possess similar characteristics for which the research findings may be generalised.

3.6 Sample and Sampling Technique

Bhardwaj (2019) outlines sampling as the process of choosing a subset of individuals from a larger population to conduct a detailed research study. The study has made use of a purposive sampling technique. Purposive sampling strategies deliberately depart from random sampling approaches. Instead, they aim to strategically select particular types of circumstances relevant to the research objectives. These strategies ensure that individuals or cases with specific and relevant characteristics will be intentionally included in the final sample (Campbell, 2020:654). Adopting a purposive sampling technique allows the understanding of particular participants to form part of the sample.

The case study was undertaken at an independent primary school in Benoni. The participants included senior staff in managerial positions, teachers, and learners. To add to this description, two deputy principals, two HoD teachers, six class teachers, and nine Grade 6 and ten Grade 7 learners constituted the sample. The research focuses on learners and school leaders. For this purpose, the views of the deputy principals, the HoDs (all being more experienced teachers), and four class teachers were collected in one-on-one interviews. The focus groups consisted of two groups, each with a class teacher. The first group comprised nine Grade 6 learners, while the second group comprised ten Grade 7 learners. The reason for focusing on Grade 6 and seven pupils was due to the pupils' maturity levels. I felt that children younger than this age group would not understand the research topic and the questions being asked. The deputies interviewed each had their own designation in the school, with one focusing on the academic development, and the other on pastoral care. The HoDs were learning area-specific, with one heading up the social sciences department, and the other being the head of languages. The class teachers taught across grades in the intermediate phase.

According to Palinkas, Horwitz, Green, Wisdom, Duan, and Hoagwood (2015) and Kelly, Bourgeault, and Dingwall (2010), purposive sampling involves selecting participants likely to yield insightful and relevant data. This method identifies and includes cases, predominantly when research resources are constrained. A final reason for using purposeful sampling for this research was to engage with those I felt would be intensely interested in the research topic.

3.7 Data Collection

Within qualitative paradigms, the collection of data refers to the organised method in which information is gathered and methodically prepared, supporting an informed selection by the researcher for analysis (Potokri, 2022:95). In this research, the data collection approaches that were made use of comprised participant observation and semi-structured interviews; the use of existing or secondary data was incorporated.

The semi-structured interview uses a blend of closed- and open-ended questions, which are sometimes followed by how or why questions. These are carried out conversationally in one-on-one situations. Semi-structured interviews are ideally suited when several open-ended questions require follow-up queries (Hatry, Newcomer & Wholey, 2015:493).

Data was collected by observing participants at the school, including the learners, teachers, and school leaders. De Walt and De Walt (2002) characterise participant observation as a research method wherein the researcher actively engages in everyday practices, social exchanges, and the events of a particular collection of individuals. This involvement provides a means of gaining knowledge about the clear and the implicit features of their cultural routines and daily life.

Specific times were arranged throughout the school day to observe participants in their classroom setting. This observation focused on how the development of non-cognitive skills was included in the school's curriculum.

Secondary data was sourced from the relevant literature about non-cognitive skills and their effect on academic performance. According to Sindin (2018), secondary data signifies information previously gathered by other researchers, incorporating data collected for purposes other than the present research. This pre-existing data can prove to be greatly valuable and pertinent when aligned with new research.

Analysing pre-existing data represents a cost-effective strategy for maximising the use of previously gathered information. This assists researchers in exploring significant new research inquiries or proposing a more distinguished and inclusive interpretation of the findings from the original study (Cheng and Phillips, 2014:1).

3.8 Data Analysis

An inductive data analysis was used in the study. The central aim of the inductive approach is to enable research findings to arise through recurring, meaningful, or prominent themes inherent in the raw data without the limitation of rigid methodological frameworks (Thomas, 2003:2). The data analysis was conducted in three separate ways as the requisite data was collected using three different techniques (semi-structured interview, participant observation and existing data).

3.8.1 Semi-structured interview data analysis

The data analysis commenced with organising data into workable information units. This data was captured through interviews that were recorded on a device. Units were organised and structured with the assistance of the research questions, interview guide, and the data gathered. These units allowed for the facilitation of the coding process. Williams and Moser (2019) describe coding as a systematic process in which collected qualitative data are organised, categorised, and thematically sorted, offering a coherent, organised framework to construct further meaning. By applying coding techniques, relevant patterns and themes are uncovered in the data, guiding thematic organisation essential for understanding, refining, and presenting meaning. Coding plays a crucial role in the systematic process of qualitative research, enabling the interpretation of data and enlightening the analytical stages vital to achieving the research aims.

Codes were compared and continuously refined to ensure the data analysis was conducted efficiently. These codes were then compared, refined, and grouped into themes. These themes were then categorised according to their significance and importance throughout the research. Once the interview data analysis was completed, patterns were discovered through relationships between themes. Groups were created where themes related to each other. The themes were sorted according to their significance and their meaning.

The data was interpreted through the participants' expressions, which were clarified using themes and patterns. According to Calzon (2022), data interpretation is the method of applying a range of investigative techniques to examine data and create meaningful

deductions systematically. It assists researchers in organising, manipulating, and categorising the information, facilitating the solutions to key research questions.

3.8.2 Participant observation – data analysis

The data collected through participant observation during classroom lessons, assemblies, break times, and sports and cultural events were organised to reflect the themes identified in the semi-structured interviews. Initially, notes were transcribed and coded, followed by relevant information being grouped under the thematic headings. This provided rich, descriptive evidence of non-cognitive skills being displayed in daily school life. All comments collected during the observation were analysed and interpreted directly concerning the research questions and objectives.

3.8.3 Secondary data – data analysis

Existing literature has been studied to ensure the most relevant data is used. Literature is recognised as one of the foremost enduring assets of humankind, with awareness of it being vital for research (Potokri, 2014). The research questions drove the analysis of secondary or existing data. Sources were selected based on their relevance to the research questions and their contribution to understanding the role of non-cognitive skills in educational contexts. Specific attention was put towards how existing research defined and measured non-cognitive skills, and how these skills were related to academic performance. Data analysis identified common themes and patterns, providing a conceptual framework for interpreting observational data.

3.9 Validity and Reliability

Creswell (2013) claims that, within the context of qualitative research, validity entails that the researcher ensures the credibility and accuracy of the outcomes by using specific methods. The four procedures of credibility, transferability, dependability, and confirmability were drawn upon to determine the validity and reliability of this study.

3.9.1 Credibility

It was essential to compare the findings of my research with those of previous research and to determine the extent to which my findings were consistent with those of other

studies to ensure the credibility of the research. According to McMillan and Schumacher (2010), credibility is the degree to which a study's results are perceived to mirror reality and are considered reasonable, trustworthy, and accurate.

In this research, credibility was ensured through several strategies:

- Data supplied by participants were checked for accuracy, and opportunities were provided for participants to review the interpretation of their responses
- Multiple data sources, including participant observation and secondary data (through literature), were used to triangulate findings

Collectively, these measures reinforced the trustworthiness of the research, confirming that the analysis accurately reflected the participants' experiences of their involvement.

3.9.2 Transferability

Transferability implies the extent to which the outcomes of a qualitative study may be generalised, or transferred to different contexts or circumstances. From a qualitative point of view, transferability is primarily the obligation of an individual to generalize (Trochim, 2022) and identify participants through purposive sampling, which assisted in data transferability to additional contexts. The opinions and ideas of the participants about the problem being researched allowed for the discoveries to be transferred to other situations, as they were in-depth and enlightening.

An independent primary school in Benoni created the context and background for the case study. Participants were randomly selected, with an equal mix of boys and girls. The staff members (HoDs, teachers, and deputy principals) were staff who taught across different grades, allowing them to take into account the varying levels of non-cognitive skill development in the school and to capture the most comprehensive views of staff. Focus group interviews were held in the school boardroom, while individual interviews took place in various school offices and classrooms. Participant observation took place throughout the school, including but not limited to the following areas: classroom lessons, assemblies, sports and cultural activities, and break times.

The combination of interviews, observation, and secondary data analysis has allowed for a more evident validation of findings through triangulation. According to Noble and Heale

(2019), research triangulation is a procedural strategy to improve the credibility and validity of a study's findings. Research triangulation aims to validate the study's outcomes. Triangulation can make use of diverse methods to accomplish the goal of validating the research results.

The researcher remained impartial throughout the data collection to avoid bias or preconceptions. Learners and staff could respond without being prompted or guided towards a specific response or outcome. Elmusharaf (2019) states that qualitative research is context-bound, and researchers must be context-sensitive.

Verbatim comments from the participants have been included in the presentation of findings, allowing for the nuances and complexities of the research context to be captured.

3.9.3 Dependability

The logic implemented to select participants for the interview process and the procedure followed during participant observation were clearly outlined to support the dependability of the research. The data obtained from the interviews and the observations were compared to findings from the literature study of existing data. This type of comparison is known as triangulation. The other methods of collecting data may supplement possible weak points of one approach to data collection. Patton (1999) describes triangulation as using various methods or sources of data in qualitative research to create a complete understanding of the phenomenon. This research ensured dependability by preserving research process documents, including data collection steps, interview recordings, and field notes. Using triangulation across interviews, observations, and literature confirmed findings were consistent across sources, enhancing the results' dependability.

3.9.4 Confirmability

It is vital that, as the researcher, my biases did not affect the study's findings, as these needed to be solely the participants' understandings, words, and narratives.

According to Trochim (2022), confirmability is the extent to which the conclusions of a study can be verified or substantiated by other researchers. Measures for examining and re-examining the data during the course of the study can be documented by the

researcher, and the way in which the research findings were presented need not be affected by my feelings and emotions as the researcher.

From a data collection perspective, several strategies were used. Cross-verification of the following sources - participant observation, semi-structured interviews, focus group interviews, and secondary sources – assisted in providing a comprehensive understanding throughout the research process. Importantly, all documents, transcribed interviews, interview recordings, and observation notes were collected, forming part of an audit trail, which Given (2012) describes as a methodical account of the research procedure in a qualitative study, showing how the study was conducted and how deductions were drawn. It provides transparency through the documentation of each phase in the research process, and is backed up by pertinent documents and relevant records. The participants' verbatim comments offered clear evidence of the findings.

3.10 Ethical considerations

According to Wiles (2013), ethics, as a division of philosophy, examines questions linked to morality. While the concepts - ethics and morals - are regularly used interchangeably, ethics pertains to the ideologies guiding morally suitable behaviour in the research process.

An ethical clearance certificate was obtained from the university for conducting the research. As this was a single school case study, permission was also obtained from the principal to conduct research in their school, which was an independent institution. Full consent was obtained from participants before they took part in the study. Informed consent comprises ensuring all participants are fully acquainted with distinct information about their involvement in a research project, empowering them to make an informed decision concerning their involvement (Wiles, 2013:6).

Individuals and organisations (schools) remained anonymous, and their privacy was ensured with honest and transparent data being communicated.

Qualitative research presents ethical implications due to its focus on the participants' lived experiences and personal contexts. Belliappa (2019) suggests that researchers in

education need to be involved with a variety of ethical questions, not only when conducting research, but also regarding how its findings might be employed. Enthusiasm for answers should never override a commitment to the well-being of one's research subjects and the contexts in which they learn and live their lives. Through the interpretive nature of qualitative research, the researcher plays a vital role in representing the participants' voices and accurately presenting the findings. These measures ensured the study met both procedural ethics and ethics in practice.

3.11 Limitations of the Study

Being a case study conducted on a single school, the study was confined to this single school and is not representative of all independent primary schools. In turn, the information and opinions obtained mirror the opinions from a definite group of nominated participants and, therefore, will not thoroughly reflect all independent primary schools.

Conducting qualitative research is a time-consuming activity, and, as a consequence, some participants were not readily available during the study due to prior commitments. My research was scheduled according to the times teachers offered me during the participant observation phase. I found that the dynamics of the study did not change due to these events. These limitations did not impact the trustworthiness of the study.

3.12 Chapter Summary

The focus of this chapter has been on the methods used to conduct the research. Elements have been discussed and clarified, including the research approach, research design, the data collection strategies used, and data analysis. The reason for including the various techniques used formed part of this discussion.

CHAPTER FOUR :
PRESENTATION OF DATA AND FINDINGS

4.1 Introduction

The emergent themes identified from the individual interviews, focus group interviews, observation, and secondary data analysis are shared in this chapter.

4.2 Participants

Table 4.1: Summary of research participants

Participant Number	Gender; Approximate Age	Number of years teaching	Symbol
Deputy Principals			
1	M ; late 40s	23	DPM
2	F ; early 60s	35	DPF
Heads of Department			
3	F; early 60s	35	HDF1
4	F; late 50s	30	HDF2
Class Teachers			
5	M ; mid 30s	12	CTM1
6	F; late 20s	7	CTF1
7	M ; late 30s	15	CTM2
8	F ; early 40s	18	CTF2
Focus Group – Grade 6			
9	F; mid 30s	15	FG1FT
10	F; 12	NA	FG1GL1
11	F; 12	NA	FG1GL2
12	F; 12	NA	FG1GL3
13	F; 11	NA	FG1GL4
14	F; 11	NA	FG1GL5
15	M; 12	NA	FG1BL1

16	M; 12	NA	FG1BL2
17	M; 11	NA	FG1BL3
18	M; 12	NA	FG1BL4
Focus Group – Grade 7			
19	F ; mid 30s	15	FG2FT
20	F; 12	NA	FG2GL1
21	F;13	NA	FG2GL2
22	F;12	NA	FG2GL3
23	F;13	NA	FG2GL4
24	F; 13	NA	FG2GL5
25	M; 13	NA	FG2BL1
26	M; 13	NA	FG2BL2
27	M; 13	NA	FG2BL3
28	M; 12	NA	FG2BL4

Table Key

DPM	Deputy principal, male		FG2FT	Focus group 2 female teacher
DPF	Deputy principal, female		FG1GL	Focus group 1 girl learner
HDF	Head of department, female		FG1BL	Focus group 1 boy learner
CTM	Class teacher, male		FG2GL	Focus group 2 girl learner
CTF	Class teacher, female		FG2BL	Focus group 2 boy learner
FG1FT	Focus group 1, female teacher			

4.3 Presentation Report – Emergent Themes

Once the data from these sources had been coded, the researcher identified five general themes. Within some of these themes, associated sub-themes were identified. A number of the participants' comments (verbatim) have been included in the discussion below.

Table 4.2: Emergent Themes and Sub-Themes

Theme	Sub Theme
1. Developing non-cognitive skills within the school environment	1. Class teacher 2. Pastoral care 3. Incidental teaching and learning, and extra-curricular activities 4. School assemblies
2. School leaders' recognition of the importance of non-cognitive skills	1. School climate 2. Professional development
3. Expanding the role of teachers	1. Excitement of learning 2. Meeting the expectations of learners 3. Model behaviour
4. Learner mindsets	
5. Exploring the influence of non-cognitive skills on academic achievement	

4.3.1 Developing non-cognitive skills within the school environment

The participants identified various approaches to develop non-cognitive skills within a school. The learners, teachers, HoDs, and deputies have mentioned similar ways that the school attempts to develop these skills, the effect these strategies have, and how these strategies could be improved. There has also been some agreement on new ways to develop these skills further. While the general consensus was that the school does attempt to develop these skills, it has been interesting to note that management team members have indicated that, within the classroom, more can be done.

HDF1 has mentioned that

> *"Our school system currently lacks dedicated lessons focused on practising problem-solving and promoting social and emotional well-being aspects that I believe would significantly enrich the academic experience for students. Nonetheless, these non-cognitive skills can naturally integrate themselves within subject areas taught, as well as within cultural and sporting activities."*

Farrington et al. (2012) believe that developing students as learners necessitates showing consideration towards their social skills, mindsets, behaviours, strategies, content knowledge, and academic skills.

FG2GL4 mentioned that

> *"I know that our teachers try to teach us some skills at school, but I'm not really sure what they are called. I think they are the skills that help us work with other people, and keep trying when things are hard."*

The critical question lies not in how to alter students for improving their behaviour, but rather in modelling educational contexts that effectively foster the development of critical dispositions and learning approaches indispensable for their academic achievement.

From the data obtained, particularly from the interviews and participant observation, the most critical ways non-cognitive skills are developed within the school are discussed below.

4.3.1.1 Class teacher

Teachers and learners feel that the class teacher is the person who comes into contact with the learners more than any other person in the school environment. It is crucial that this teacher develops their relationship with the pupils and fosters an environment of inclusivity.

In his interview, CTM1 mentioned,

> *"If the learners' needs and requirements are not met within the classroom, then they aren't going to be learning anything. I think that's a prerequisite for learning. If you don't feel comfortable, then you're never going to be able to learn. So in terms of their basic needs, Maslow's hierarchy of needs, those elementary needs have to be satisfied in the classroom before they can start learning."*

An interesting addition to this has been taken from the Grade 7 interviews. When asked, "How do your teachers or school improve your non-cognitive skills?" Learner FG2GL3 added,

> *"Yes, even teachers can, at school, improve on these non-cognitive skills, like even in their own lessons in the classroom, they can help every day, little by little, maybe if it's even*

five minutes a day during lessons, they can help improve on these skills gradually but consistently."

By embodying the development of emotional intelligence, the promotion of social skills (as well as modelling these skills), and creating a positive classroom environment, class teachers have the prospect of engaging their learners in a wide range of non-cognitive skill development.

4.3.1.2 Pastoral care

The development of pastoral care systems has become more prevalent in schools in recent years. Pastoral care can be defined as a school's arrangements to ensure pupils' physical and emotional well-being. It is the essential basis for learning (Girls Day Schools Trust, 2024). In this regard, possibly one of the most interesting questions of the conducted research, I asked the deputy principals: "In what ways does the school develop non-cognitive skills outside of the classroom?" Both participants responded similarly to the above definition of pastoral care. DPF expressed,

"The pupils are monitored with their interactions at break and during their classes, the way in which they are encouraged to ask questions and communicate with the pupils and teachers. We also have a pastoral care system at the school where each head of house is available to monitor and guide the pupils."

DPM shared similar views, noting that

"We have a values system that we're trying to instill. We have a mentor system where a junior has a senior to tap into. We have a house system, so we actually do quite a lot in terms of trying to foster that non-cognitive skill development."

By incorporating a pastoral care element into their general teaching and within the school's operations, teachers and school leaders may be guided to look beyond only the academic instruction of learners alone and to include psychological, emotional, and even social support for their learners.

4.3.2 Incidental teaching and learning, and extracurricular activities

The teachers involved in the group discussions and individual interviews indicated that time can be a factor in focusing on non-cognitive skills, meaning these skills are not

necessarily the focus of their lessons. However, there is a trend where they feel that in some of their teaching, the transfer of these skills does take place incidentally, that is, without full intention and, to an extent, by chance. Incidental teaching can only occur if the teacher possesses the skills or can pass them on to their learners. FG2FT indicated that

> "*The more self-aware you are, it's going to impact the children that you're teaching. So, if you have the soft skills, the communication, and the empathy as a teacher, and if you have the patience, kindness, and understanding, then it's definitely going to have an impact on the children academically.*"

Schools have incorporated extracurricular activities for several reasons: competition, creating a healthy lifestyle, and physical, social, and emotional development. Often, school teachers find themselves in the position of coaching sports skills to learners. Incorporated into this are the life skills that sports teach children. These are skills such as determination, resilience, communication, teamwork, and discipline. It is essential to record that, through participant observation, it was noted that most of the staff were involved in performing extra-curricular activities. Their involvement in these activities allowed them to engage with learners outside the classroom and created further opportunities to develop life skills through sports or cultural activities. CTF1 had this to say

> *"I think non-cognitive skills are often taught without us really planning for them. Learners pick up teamwork, problem solving, and communication through classroom activities, and they also develop things like resilience and responsibility when they take part in sports and cultural activities."*

Consistent with the research of Eime et al. (2013), various activities offered by the school can positively influence the learners' physical, psychological, and social health.

4.3.2.1 School assemblies

Observations of school operations have indicated various ways in which non-cognitive skills are being developed. The school conducts various weekly meeting points with the learners, including morning line-ups, chapel services, house meetings, register class periods, and assemblies. The latter has proved to be the most vital in transferring

messages and discussing what the school termed a ‘value of the week’. DPM was passionate about including assemblies in the weekly timetable, stating

> *“I think it’s really important to talk about our values in our weekly assemblies. It gives learners the chance to think about things like respect and responsibility, and helps them understand how to apply these values in school and in their daily lives.”*

Mehta’s (2016) research supports the notion that good school assemblies are vital to a successful school curriculum.

These ‘values of the week’ discussed by a HoD are directly related to non-cognitive skills. These include grit, determination, pride, self-control, and sportsmanship. The HoD relates these skills to a story. They may even conduct a presentation on the digital screen or have learners volunteer to assist in acting out a short example portraying the skills being discussed.

In the interview with the Grade 7 learners, when asked how the school improves their non-cognitive skills, FG2GL2 mentions,

> *“A simple one would be house meeting and assembly, because our teachers, our house leaders, usually make it easier for us to understand the skills we couldn't learn by ourselves.”*

They add that

> *“Assemblies are when one teacher or HoD comes up and has their own story or to tell us a life lesson of one of those skills.”*

Non-cognitive skills development within the school is seen as a process, and these skills require time to develop and fully assist in the learner's holistic development. An element of consistency is necessary to ensure that these skills are continuously developed. Teachers have also suggested that a positive school environment is vital to developing skills. Although more can be done to improve these skills, all participants felt that should extra effort be put towards doing this, and the correct interventions take place, the long-term benefits would be highly valuable, echoing the sentiments shared earlier in the paper from Feng et al. (2021), who believe that non-cognitive or socioemotional skills may be predictors of success later in life. They can be moulded through various interventions.

4.3.3 School leaders' recognition of the importance of non-cognitive skills

In their interviews, Deputy Principals and the HoDs revealed an appreciation of the significance of non-cognitive skills within school operations and the academic curriculum. They agree with the comment mentioned previously by Kautz et al. (2014:4) that establishing a strong foundational skill set that fosters sustained learning and active engagement in educational and social contexts can be more effective than using reactive approaches once difficulties have arisen. DPF mentions

> "I think recognising non-cognitive skills is really important. By emphasising teamwork, resilience and responsibility through class activities, reports and end of term awards, and making it part of the school routine and academic cycle, learners see that being well-rounded matters and they are encouraged to keep developing these skills."

Two areas of particular interest relating to school leadership and the departments in recognising the significance of non-cognitive skills stood out. These are the climate created within the school, the professional development of all staff to improve non-cognitive skills, and meeting the expectations of learners and parents through the excitement of learning.

4.3.3.1 School climate

The school's leaders are often the staff who determine the climate of the particular school. School leaders like this typically assist staff in determining ways to integrate non-cognitive skills development into their teaching.

The research conducted by Zynuddin et al. (2023) agrees with the comments laid out by the teachers below: a nurturing and optimistic environment created by the leaders and teachers of the school offers a more significant opportunity for the holistic development of the learner.

DPM indicated that

> *"As a leader, actions speak louder than words, and from a management point of view, leading the way through your actions and not demanding of others that you are not happy to do yourself are important."*

HDF2 supports this view by stating that she understands her responsibility as an HoD is to be

> *"…knowledgeable and approachable, and to allow for my colleagues to feel supported in enhancing their teaching practices and collaborating to uphold the school's expectations."*

The argument by Farrington et al. (2012) previously mentioned supports the views of these staff members, confirming the significance of shaping a learning environment within schools that speaks to the natural curiosity of learners and their desire to learn. This requires schools to actively nurture students' knowledge, understanding, competencies, and self-perceptions of their potential as they cultivate the strategies, attitudes, and behaviours that offer them the opportunity to bring their aspirations to fruition.

4.3.3.2 Professional development

As a teacher, you are constantly being looked upon as a leader. There are many learners within the classroom context who require guidance, mentoring, and encouragement. Teachers must model the skills to develop a nurturing environment and connect with their learners on an academic level, but as importantly, to show compassion and kindness to these learners.

The argument put forward by Andrews and Crowther (2006) allows us to ascertain that school leaders are determined by their position and that any teacher within the school can lead and transfer non-cognitive skills to their learners. The behaviour facilitated by teachers needs to guide the learners and the school toward whole-school success distinctly.

To allow teachers to develop their leadership attributes, the provision of professional development by the school needs to be a priority, which can be in the form of courses undertaken outside of the school, cluster meetings, and webinars. HDF1 has alluded to this by saying

> *"As heads of department in the school, we have pooled together our ideas and expertise to improve the teaching of 21st-century skills. We are currently adapting our curricula to modular teaching methods, which provide additional time for imparting non-cognitive skills. In my department, I am accountable for overseeing this transition in teachers' preparation and lesson plans."*

While many leadership development courses focus on the development of the principal, I feel it is vital to carry this development through to the deputies, HoDs, and teachers. Staff development ultimately benefits the learners. DPF, the deputy principal of academics, mentions that

> *"We need to have staff development. Our teachers need to be exposed to more facts about non-cognitive development. It will help them to deal with children in different situations".*

In common with the findings of Gurr (2015), the development of teaching expertise is of the same importance as that of school leadership development. This development needs to be focused not only on non-cognitive skill development in learners but also on ensuring the overall holistic development of every school learner.

4.3.4 Expanding the role of teachers

The role of teachers has evolved over recent years. While the core responsibilities are to ensure that the pupils in their classrooms are looked after and taught correctly, the role has expanded to incorporate many more responsibilities to foster positive engagement with learners, parents, and other teachers. Previously mentioned research by Yu et al. (2022) agrees that teachers can develop a growth mindset within their learners and convey that they can improve. CTF2 commented that

> *"As teachers, we play a huge role in developing a learner's non-cognitive skills, often without realising it. It is how we behave, handle challenges, and interact with the learners. I think it's about being intentional in those moments, spotting opportunities to build these skills and reinforce them so learners can see their value."*

Concerning fostering non-cognitive skill development in their learners, the following three sub-themes have been identified: Excitement of learning, meeting learners' expectations, and modeling behaviours.

4.3.4.1 Excitement of learning

Through my observations, I have seen how learners thrive on exciting lessons, being incorporated into the lessons, and playing an active part in the teaching-learning process. Teachers who asked stimulating questions, arranged class discussions, and had learners

demonstrate ideas through role-playing activities created a learning environment that ignited excitement.

The deputy principal, CTM2, felt that

> "*Learners need to be actively engaged in the content and process of learning to ensure they are motivated and find that learning is meaningful to them."*

Supporting these comments were the views previously alluded to by Hendrickson (2021), relating to a growth mindset, whereby the significance of a learner's feelings towards their own abilities can assist in how they learn.

In addition, when asked how you can create a space that speaks to a learner's natural curiosity and desire to learn, CTM1 responded,

> "I think the ability to relate to students using current events, things that they enjoy, is vital. Things like competition, which sort of speaks to the children, and once they've got that sort of passion into their thinking, it ignites their curiosity further."

Linking to the theoretical framework of growth mindset, the comments mentioned above by Tuan et al. (2005) agree that the learning environment, as well as engagement with learners, underpin learner motivation and the willingness of learners to expend more effort on the tasks at hand.

4.3.4.2 Meeting the expectations of learners

Within their departments, deputy principals, HoDs, and teachers must formulate lessons and manage the school's operations while meeting learners' expectations. In her interview, HDF1, a HoD, felt strongly that her position or role is to

> "…*ensure curriculum development, staff management, student performance monitoring, and to foster a positive learning environment.*"

The comment found in the literature from Mohan-Chandar (2021) regarding the important all-around role the 21st-century teacher has to play agrees with this. Learners and their parents seek an education catering to their individual needs and preferences. FG2BL3 had this to say about teachers meeting the needs of the learners

> "I think most of our teachers meet our expectations because they really try to help us do our best. They explain the work so we can understand it and help us, or give us extra time

> if we get stuck. I like it when teachers listen to our ideas and make the lessons more fun. I think that mostly they want us to do well in our subjects."

In her article about a change in focus of student expectations, Carballo (2024) states that students seek further achievement than a formal qualification; they desire to engage in an educational journey that prepares them for their future. Through recognising and addressing the evolving prospects of students, schools have the potential to create a stimulating academic environment that prepares students for achievement in their personal and professional lives. Although this may be directed more toward higher grades or university students, this is nevertheless the experience that all learners expect. Schools and teachers need to do everything in their power to put themselves in a position to deliver on these expectations.

4.3.4.3 Model behaviours

Teachers are in a position where they can inspire learners through their own behaviour and through how they communicate with and relate to the learners with whom they come into contact. FG1FT commented that

> "*I think a lot comes to modelling your behaviour and modelling the skills. It's very hard to ask children to communicate properly if you're not doing it yourself. So, I think a lot of it comes from just incidental learning, incidental stuff that happens in the class, how I would treat the children in the class, how I would treat my colleagues, because they're watching all the time. It's always about that interaction*."

These views of FG1FT support the earlier notion by Berkowitz and Bier (2007), stating that teachers hold a remarkable position to embody and impart a group of characteristics derived from a distinct value system onto their students.

Through the observations made at the school, this act of being a role model has been noticeable in various facets of school life, such as classroom teaching, coaching on the sports field, assemblies, house meetings, and how the teachers generally interact among themselves.

4.3.5 Learner mindsets

Through observations during classroom lessons and daily school activities such as sports and cultural activities, it has become apparent that the learners' mindsets within the school can evolve. An interesting point to note (identified during these observations) is that I feel the learners are at an age where they are starting to focus their minds and build their own character traits. However, there are times when they will deviate from these traits, particularly when in a group setting. As these learners move into early adolescence, they require constant reminders and reinforcement of the lessons learnt in the classrooms, assemblies, house meetings, and sporting and cultural arenas.

In answering the question of whether she thinks the mindsets of her learners can change, CTF1 noted

> *"If you're just going to be in a classroom and you're lecturing somebody and telling them what to do, they're never going to have that growth mindset. But if you're giving them those tools, and it is those non-cognitive tools, the confidence, the reasons to persevere, or the encouragement that they need."*

The research previously mentioned by Oshunbiyi (2021) supports these comments, which state that when issued with the correct tools, learners can believe that their growth mindset attributes can be developed.

CTM1 also alluded to this when asked if his teaching style allows learners to contribute to society positively. He replied that he felt it did and commented,

> *"The way that I try and teach is to relate to something outside of school. And when something is relatable to matters outside the school environment, then it makes the content real."*

This allows for the content and the skills to form part of a holistic lesson, which assists in developing learners' curiosity and, in turn, changing their mindset. The research mentioned earlier, conducted by Yu et al. (2022), supports the points put forward by these teachers, concluding that teachers need to be at the forefront in developing this mindset change and are to be proactive in making use of various approaches to support the learning process within their students.

4.3.6 Exploring the influence of non-cognitive skills on academic achievement

A question on whether non-cognitive skills affect academic performance was asked of all interview and focus group participants in various ways. There was a resounding affirmative response to this question. While many of the questions were associated with the effect or influence of non-cognitive skills on academic achievement, I felt two responses stood out the most. CTF2, in her response, said

> *"Absolutely, yes. If we don't get children to think in a certain way, then they are very narrow-minded. And opening them up to using non-cognitive skills then allows them to broaden their way of thinking, and that makes them more open to learning and open to start taking in other concepts."*

Garcia (2014) states that concentrating on non-cognitive skills has the potential to improve the performance of reading, writing, and mathematics, and it is vital to acknowledge and agree with the teacher's comments.

FG2FT speaks about creating a holistic learner in her response:

> *"Yes, I think it definitely will. If you have a holistic approach to education, it's always going to be the best. You're covering all the bases; you're touching on all those skills that you need."*

FG2FT differentiates between the 'soft skills' that can be taught and the content that can be searched for on the internet.

> *"It is the soft skills that you can't necessarily pick up on the internet. So, if you're incorporating them into your lessons, you're starting to train the future generation to have those skills that they need, to have that grit and determination and empathy. And this will naturally lead to improved academics."*

This data confirms the following statement from various sources: Non-cognitive skills are crucial contributors to academic success, complementing and frequently surpassing the influence of cognitive skills. Although cognitive skills such as intelligence and academic knowledge are fundamental to the learning process, non-cognitive attributes encompass a range of characteristics, including self-control, perseverance, motivation, and social-emotional capabilities that meaningfully influence educational performance and outcomes

(Jones et al., 2017; Farrington et al., 2012; Durlak, Weissberg, Dymnicki, Taylor & Schellinger, 2011).

4.4 Chapter Summary

An analysis of the data from interviews, observation, and secondary data was presented in this chapter, offering an understanding of the influence of non-cognitive skills on academic performance. The analysed data were divided into themes, and sub-themes were discussed regarding the information collected.

The data presented in this chapter lead to the discussion of Chapter Five's research findings and the recommendations made.

CHAPTER FIVE :
CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarises the research study, including a synopsis of the research objectives and the study findings that came to light in Chapter Four. Discussion on the interpreted data and insight into various recommendations that can be made are incorporated. The chapter concludes with the proposed recommendations to assist future research in delving deeper into this area of research before a final summary.

5.2 Summary of Research Objectives and Findings

This study aimed to ascertain the understanding and perceptions of learners and school leaders about the influence of non-cognitive skills – including perseverance, motivation, social skills, resilience, and grit – on academic performance. The research examined the views of staff members of various designations and those of pupils within the school. It garnered their understanding of how these skills may impact a learner's academic performance and how teaching these skills can be incorporated into a school's academic offering. A thorough review of the literature, observing a larger group of pupils, and observing the various operations of the school also assisted in compiling more concise findings.

As stated in Chapter One, the sub-research questions have been briefly answered below, offering a clearer understanding of meeting the research objectives.

1. The development of non-cognitive skills often occurs incidentally, rather than through official curriculum channels. Many of these skills, such as teamwork, empathy, grit, and determination, are nurtured through daily interactions between teachers and learners, classroom activities, and extra-curricular involvement. In these cases, the development of such skills occurs naturally as part of the learning environment and the school culture, as opposed to an organized programme.

However, some teachers make a thoughtful effort to incorporate the development of non-cognitive skills into their lessons. These teachers may include problem-solving tasks, design group activities to build collaboration, or set reflective tasks to encourage self-awareness. Although this method is not universal, it shows that some teachers actively notice the significance of teaching non-cognitive skills alongside academic content, contributing to a learner's holistic development.

2. School leaders and teachers place high value on the inclusion of non-cognitive skills development, identifying it as essential to supporting resilient academic performance. They see these skills as complementary elements that empower learners to succeed in their lessons. By promoting these skills, learners are better equipped to handle academic pressures and approach tasks confidently.

   School leaders and teachers have emphasised that non-cognitive skills form the foundation for continuous academic achievement. While academic knowledge can be taught directly, they believe that developing personal attributes and attitudes is equally important in shaping resilient, independent, and adaptable learners. As a result, they value initiatives, programs, and teaching approaches that intentionally include non-cognitive skill development in conjunction with academic instruction.

3. Learners generally identify that non-cognitive skills can positively affect their academic performance, even if they may not always identify these skills by name. Many recognise that time management, perseverance, and the ability to work well with others help them complete tasks, stay prepared, and handle challenges during the school year. Some learners admit that their academic work improves when they are more focused, motivated, and confident.

   However, some learners find it challenging to directly associate these skills with their academic performance, seeing them as part of their general behaviour or personality instead of a considered development area. While they may appreciate encouragement and guidance from teachers, they often only recognise the link between these skills and their academic outcomes when clearly discussed or experienced through structured activities.

4. School leaders and teachers generally perceive non-cognitive skills as playing an important role in supporting and improving academic performance. They recognise that these skills contribute to a learner's ability to engage implicitly with academic challenges and pursue a consistent effort over time. These teachers also acknowledge that without developing strong non-cognitive skills, learners may struggle to reach their full potential. They note that these skills often influence a learner's attitude towards learning, eventually impacting their overall academic outcomes.
5. It is recommended that schools implement a more intentional approach to integrating non-cognitive skills development into both the curriculum and extra-curricular activities. This can be done by creating opportunities for learners to practice these skills. Teacher training should accentuate strategies for explicitly teaching and modelling these skills, ensuring they are recognised as a valued part of classroom practice.

   Additionally, schools should develop systems to acknowledge and celebrate learners' progress in non-cognitive skills, reinforcing their connection to academic performance. This could include incorporating these skills into assessment frameworks, parent communication, and learner reflection activities. By making non-cognitive skills development a visible and measurable part of school life, learners are more likely to understand its value and apply these skills to support their academic success.

Knowledge acquisition and cognitive development remain crucial, as developing non-cognitive skills lays a foundation that allows learners to apply their cognitive abilities effectively. In addition, the research suggests that while schools propose ways to develop non-cognitive skills in their learners, gaps are still being identified between these claims and the verifiable provision and development of these skills.

The Growth Mindset theoretical framework offers an outlook from which the development of non-cognitive skills can be understood, recognised, and facilitated.

5.3 Discussion of Findings

5.3.1 Alignment of perceptions

The alignment between school leaders' and teachers' perceptions and learners' perceptions indicates a shared understanding of the importance of non-cognitive skills and their effect on academic performance, suggesting an awareness from both groups that a comprehensive collection of skills contributes to a learner's academic development, and that academic success is not solely dependent on cognitive abilities. The foundation for more collaborative efforts in enhancing the progress of non-cognitive skills within schools can be established from this understanding.

5.3.2 Influence on academic performance

The findings support the existing literature on a constructive association between non-cognitive skills and academic performance. This correlation can influence various aspects of a learner's education. These skills facilitate learning and academic achievement beyond intellectual capability by including a variety of personal characteristics and behavioural traits. Their presence can affect a student's ability to participate in educational content and work through several intricacies of the learning environment.

Non-cognitive skills can contribute to a learner's ability to control their emotions, behaviour, and attention, affecting their ability to focus on learning activities. The development of these skills allows learners to create attainable goals and persevere in the attainment of these goals. Additionally, they influence how learners interact within the classroom or school environment. They assist in creating positive educational encounters, playing a role in collaborative tasks, and helping learners communicate effectively with peers and teachers. Cultivating these skills in a classroom environment creates a more conducive learning atmosphere with supportive classroom dynamics.

5.3.3 Deficiency in implementation

Despite recognising the value of non-cognitive skills, a noticeable gap between theory and practice is prevalent. Findings and the literature suggest that schools should attempt to incorporate non-cognitive skills development into a more holistic curriculum. School leaders and teachers have expressed difficulties such as time constraints, insufficient

resources, and a deficiency of training to assimilate a skills development programme. Focusing on non-cognitive skills and the fundamentals of creating a growth mindset within a professional development programme for school leaders and teachers would improve their capabilities of supporting and enhancing learners' development of these essential skills.

Learners have also noticed variability and inconsistency in teachers' emphasis on these skills. These varying levels of understanding and implementation of non-cognitive skills development among school leaders and teachers point to a more structured approach to skills integration and the encouragement of all teaching staff to work towards the common goal of skills integration.

Another matter that should be considered is that schools should consider the need for assessment tools to assess non-cognitive skills and growth mindset in their learners; this could assist in guiding schools in creating various intervention strategies to enhance their skill development programme.

5.3.4 Growth mindset as a catalyst

The positive association between a growth mindset and the enhancement of non-cognitive skills indicates that interventions that promote a growth mindset can provide a pathway to improved academic performance. School leaders and teachers can play an important role by using and modelling growth mindset techniques and principles, and including them in the school culture. Teachers have the opportunity to instill and enhance a mindset within their learners where they have confidence that their abilities can improve with commitment and hard work.

5.3.5 Role of school culture

The study underscores a school culture's role in nurturing non-cognitive skills. Schools with an inclusive and supportive environment may facilitate the development of these skills more successfully. Should school leaders prioritise non-cognitive skills in their school culture, there is a strong likelihood of positively impacting overall learner well-being, potentially leading to improved academic performance. On top of this, the attitudes

and behaviours modelled by teachers and staff may also strengthen the significance of these skills, serving as a guide for learners to emulate.

5.4 Recommendations

I propose the following recommendations as strategies derived from the research findings in the previous section. These recommendations aim to address specific issues identified in the study, assist in making connections between research and practice, and extend the study's results into the education field.

5.4.1 Focused non-cognitive skills development

Policymakers and school leaders can promote dedicated instructional time to teach non-cognitive skills at the primary school level explicitly. There is a need for educational structures to place a greater prominence on developing non-cognitive skills as part of the traditional academic curriculum or perhaps redesigning the current school curriculum to incorporate focused life orientation or life skills lessons. Furthermore, within each learning area of the curriculum, various non-cognitive skills can become part of the learning outcomes or objectives achieved within lessons or themes.

Social-emotional learning programmes incorporating a collaborative classroom environment where learners can communicate, discuss, cooperate, and collaborate should be embedded in all learning areas and integrated across these learning areas.

5.4.2 Themes to live by

Many schools have values and mottos, observances or traditions that may be sung about, declared on a sign board or in the front of a homework diary, or spoken about in group settings such as assemblies or register classes. Schools need to develop these values, mottos, and traditions into themes that can be lived daily instead of occasionally being spoken about, where the outcome may not necessarily be as effective as practising what is spoken or read. Such themes can promote a holistic and nurturing learning environment, preparing learners to become understanding, engaged, and accountable individuals.

5.4.3 Alignment of standards

As non-cognitive skills are less tangible than academic skills, they pose a difficulty in developing standards by which they can be measured. Factors from both within and outside the academic landscape should be considered to determine a holistic assessment framework for learners. School leaders have the opportunity to create reporting and assessment structures that can be integrated into the curriculum and displayed on a learner's report card towards the end of a school term. Several sources to ensure this feedback is not subjective would need to assist in creating the most transparent observations, such as peer assessments, teacher observations, and performance tasks designed to have students demonstrate non-cognitive skills or their understanding of them.

To understand the value that non-cognitive skills can add to a learner's success, clearly defined rubrics would need to be used, describing different proficiency levels for the skill or task at hand. Teachers must step in to play a crucial and highly accountable role through the guidance of school leaders, ensuring only the correct teaching and learning occur, and the assessment tools allow for further development of non-cognitive skills.

5.4.4 Further professional development

The role played by all teachers is paramount to delivering teaching that will encourage non-cognitive skills development. While some teachers have the natural and inherent ability to engage with learners and promote this skill development, others may not be as confident. School leaders must carefully devise professional development programmes or incorporate already well-structured programmes into their school strategy. A way of increasing teachers' confidence can be to share various leadership roles amongst the staff and encourage staff to build meaningful relationships with their learners.

Further training aimed at developing social-emotional teaching and learning techniques, using project-based learning, which incorporates collaboration amongst learners and teachers, and training teachers to create an inclusive classroom culture, will assist in growing teachers' confidence and, in turn, the learners' confidence.

5.5 Recommendations for Future Research

Notwithstanding the progress made by this research in advancing this line of study, further research should focus on a government school, as this research was limited to an independent school. Supplementary to this, respondents could include high school pupils whose academic focus may have shifted to a smaller group of selected learning areas or subjects, and whose attitudes and perspectives may change through adolescence.

Additionally, a mixed-method approach to research could be utilised to determine teacher approaches or methods that affect the development of non-cognitive skills.

5.6 Conclusion

This dissertation has explored the understanding of learners and school leaders regarding the influence of non-cognitive skills development on academic performance. The findings highlight these skills' influential role in determining academic performance. Together, learners, teachers, and school leaders acknowledge the significance of these skills in creating learning environments conducive to primary school learners' holistic development, ultimately allowing for the development of more proficient and successful learners.

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APPENDICES

APPENDIX A: LETTER TO HEADMASTER – PERMISSION TO CONDUCT RESEARCH

THE HEADMASTER

Requesting permission to conduct research

I kindly request for permission to conduct research at **_____.**

Title of the research: Learners and School Leaders Understanding of the influence of Non-Cognitive

Skills Development on Academic Performance

Date: 31/08/2023

Name of the person to who you address the request:
Department of the person:
Contact details of the person:

Dear _____

I, Christopher Neil Tucker, am doing research under supervision of Dr COLLINS POTOKRI, a senior lecturer in the Department of College of education towards a MED at the University of South Africa. We are inviting yourself, your staff and learners to participate in a study entitled Learners and School Leaders Understanding of the influence of Non-Cognitive Skills Development on Academic Performance. The aim of the study is to explore the understandings of both learners and school leaders about the influence of non-cognitive skills on academic performance.

The study will entail interviews and focus groups after school hours on the dates to be agreed upon ourselves.

The benefits of this study are that the findings will be share with your school and they can be used to improve your school management and it can be shared with neighbouring schools.

Potential risks are only associated with confidentiality of information and are classified as low to medium risk as respondents will not be subjected to any harm but only respond to interview questions and focus group. All participants will be made to sign a confidentiality clause to protect participants. Information obtained through this study will only be used for academic purposes and respondents will not be mentioned by names in data analysis and findings.

There will be no reimbursement or any incentives for participation in the research.

Feedback procedure will entail findings to be shared with the school and a copy of the research will only be shared once it has been approved and published by the UNISA. The copy will also be available on the UNISA list of published dissertations.

Yours sincerely

Christopher Neil Tucker

APPENDIX B: PARTICIPANT INFORMATION SHEET

Participant Information Sheet

Date: 31/08/2023

Title: Learners and School Leaders Understanding of the influence of Non-Cognitive Skills Development on Academic Performance

Dear prospective student

My name is Christopher Neil Tucker. I am doing research under the supervision of Dr COLLINS POTOKRI, senior lecturer in the college of education, towards MED at the University of South Africa. We are inviting you to participate in a study entitled: Learners and School Leaders Understanding of the influence of Non-Cognitive Skills Development on Academic Performance

What is the purpose of the study?

This study is expected to collect important information that could assist in solving educational problems and to improve school results in general by developing an understanding of the influence of Non-Cognitive Skills development on academic performance. The study will further contribute to a body of knowledge and to add to what is already known or add new information on the topic. Secondary, the study will contribute towards academic knowledge.

Why am I being invited to participate?

You are invited because of your willingness to participate, I am also informed of your contribution to our education in general and your experience as a teacher or learner. I feel that you will contribute immensely to the study by participating in this study.

I obtained your contact details from your deputy principal, who was tasked by the principal to assist me regarding the study. Indicate the approximate number of participants

What is the nature of my participation in this study?

Describe the participant's actual role in the study.

The study involves *focus groups / semi-structured interviews*. Open-ended questions will be asked.

Time estimated for each session:

Teachers	**Interview**	**40 minutes**
Deputy principals	**Interview**	**40 minutes**
Learners	**Focus Group interview**	**40 minutes**

PLEASE NOTE THAT THE RESERCHER HAS PLANNED FOR TWO SESSIONS TO PERFORM THE ABOVE

Can I withdraw from this study even after having agreed to participate?

Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent adult.

What are the potential benefits of taking part in this study?

You will share your knowledge with others through the findings.

Are there any negative consequences for me if I participate in the research project?

The low –medium risk is associated with this study which is less harmful, however there is a prevailing risk of discomfort during interviews and focus group where you can withdraw anytime. If necessary, the researcher will refer you to counselling. The researcher will do everything to minimize the risk concerned by making sure that all participants sign a confidentiality clause to protect participants.

Will the information that i convey to the researcher and my identity be kept confidential? You have the right to insist that your name will not be recorded anywhere and that no one, apart from the researcher and identified members of the research team, will know about your involvement in this research, your name will not be recorded anywhere and no one will be able to connect you to the answers you give. Your answers will be given a code number or a pseudonym and you will be referred to in this way in the data, any publications, or other research reporting methods such as conference proceedings.

Please be informed that anonymous data obtained through this research may be used for other purposes, such as a research report, journal articles and/or conference proceedings. *A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report).* Please keep in mind that it is sometimes impossible to make an absolute guarantee of confidentiality or anonymity, e.g. when focus groups are used as a data collection method.

While every effort will be made by the researcher to ensure that you will not be connected to the information that you share during the focus group, I cannot guarantee that other participants in the focus group will treat information confidentially. I shall, however, encourage all participants to do so. For this reason, I advise you not to disclose personally sensitive information in the focus group.

How will the researcher(s) protect the security of data?

Hard copies of your answers will be stored by the researcher for a period of five years in a locked cupboard/filing cabinet *at researcher's office at home* for future research or academic purposes; electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. Indicate how information will be destroyed if necessary, *hard copies will be shredded and electronic copies will be permanently deleted from the hard drive of the computer through the use of a relevant software programme*.

Will I receive payment or any incentives for participating in this study?

There is no financial reward for participating in this study.

Has the study received ethics approval?

This study has received approval from UNISA Ethics committee.

How will I be informed of the findings/results of the research?

If you would like to be informed of the final research findings, please contact Christopher Neil Tucker on 0820535255 or email 36104701@mylife.unisa.ac.za. The findings are accessible as from January 2025)

Should you require any further information or want to contact the researcher about any aspect of this study, please contact 0820535255.

Should you have concerns about the way in which the research has been conducted, you may contact my supervisor on 0842671740.

Thank you for taking time to read this information sheet and for participating

Christopher Neil Tucker

APPENDIX C: FOCUS GROUP QUESTIONS

FOCUS GROUP QUESTIONS

FOR TEACHERS

1. Would the development of non-cognitive skills for you as a teacher have an impact on the learners' ability to perform better academically?
2. Teaching involves continuous learning. Recently, have you learnt various strategies, behaviours and attitudes to help you aspire to being a better teacher? Where have you learnt them?
3. Do you think the mind-sets of your learners can change? What can help them to change?
4. What challenges have you noticed in trying to incorporate non-cognitive skills development into your lessons?
5. What do you feel are the three most important non-cognitive skills a learner can develop to allow for improved academic performance?
6. Which methods of teaching are you using in your classroom?
7. Do you think incorporating non-cognitive skills development into your methods will improve academic performance? How?
8. What challenges do you face that impact the learners grasping of non-cognitive skills development?
9. Describe ways in which you convey non-cognitive skills development in your classroom, with the aim of improving academic performance.

FOR HEADS OF DEPARTMENT

1. What is your role as the HoD?
2. What is your understanding of non-cognitive skills?
3. Do non-cognitive skills influence the way in which you lead your department?
4. What is you understanding of cognitive skills?
5. Do you feel that non-cognitive skills development supplements cognitive development and academic performance?
6. Do you feel motivated to develop these non-cognitive skills in teachers and learners in your department? Why?
7. How do you incorporate non-cognitive skill into your academic program?
8. Do you think greater emphasis should be placed on IQ or EQ?
9. Does raising academic performance mean only doing better in tests and exams?
10. How have you encouraged teachers in your department to incorporate non-cognitive skills development for improved academic performance?
11. What challenges have you noticed in trying to incorporate non-cognitive skills development into your department?
12. What do you feel are the three most important non-cognitive skills a learner can develop to allow for improved academic performance?

13. Do you have support from the principal to incorporate non-cognitive skills into your department in an effort to improve academic performance?
14. Have you noticed an area where a greater focus on non-cognitive skills is needed?
15. What are your departments' expectations regarding learners' academic performance?

FOR LEARNERS

1. Do you know what non-cognitive skills are? Can you give me some examples?
2. Do you wish to learn more non-cognitive skills? Why?
3. Do your teachers take care of your needs and requirements in the classroom?
4. Do non-cognitive skills influence the way in which you behave?
5. Does your education allow you to contribute to society in a positive manner? Please elaborate.
6. How do your teachers or school improve your non-cognitive skills?
7. Is doing better in tests and exams the only way to improve your academic performance?
8. Do you feel that your teachers creates spaces that allow you to develop your curiosity to learn?
9. Have you learnt various strategies, behaviours and attitudes to help you aspire to being better? Where have you learnt them?
10. How do your concentration levels and interests in a topic or lesson change?
11. Do you think the way you feel about academics can change? What can help this change?

APPENDIX D: INTERVIEW QUESTIONS

INTERVIEW QUESTIONS

INTERVIEW QUESTIONS FOR TEACHERS

1. What is your role as the class or subject teacher?
2. What is your understanding of non-cognitive skills?
3. Do you take care of the learners' needs and requirements in the classroom?
4. Do non-cognitive skills influence the way in which you teach?
5. Does your teaching allow your learners the opportunity to contribute to society in a positive manner? Please elaborate.
6. Do you feel that non-cognitive skills development supplements cognitive development?
7. Do you feel motivated to develop these non-cognitive skills in learners in your classroom? Why?
8. Can non-cognitive and cognitive skills be developed together? How would you go about this?
9. Does raising academic performance mean only doing better in tests and exams?
10. How can you create a space that speaks to a learner's natural curiosity and desire to learn?
11. What are your personal expectations regarding learners academic performance?

INTERVIEW QUESTIONS FOR DEPUTY PRINCIPALS

1. What is your role as the deputy principal?
2. What is your understanding of non-cognitive skills?
3. What do you understand cognitive skills to be?
4. Do non-cognitive skills influence the way in which you lead?
5. Do your teachers take care of the learners' needs and requirements in the classroom?
6. Does the way in which you lead and teach allow teachers and learners the opportunity to contribute to society in a positive manner? Please elaborate.
7. Do you feel that non-cognitive skills development supplements cognitive development and academic performance?
8. Would the development of non-cognitive skills for your staff have an impact on the learners' ability to perform better academically?
9. In what ways does your school develop non-cognitive skills outside of the classroom?
10. What part does the school play in the learners' cognitive, social-emotional and behavioural development?
11. In what ways do you think academic behaviours can change depending on classroom context?

12. How have you encouraged teachers at the school to incorporate non-cognitive skills development?
13. What do you feel are the three most important non-cognitive skills a learner can develop to allow for improved academic performance?
14. Do you monitor the development of non-cognitive skills? If yes, how? If no, do you feel it would be beneficial to do so?

APPENDIX E: OBSERVATION SCHEDULE

Observation schedule

OBSERVATION SCHEDULE **Name of Teacher:** **Date:** **Subject:** **Topic:**			
NON-COGNITIVE SKILLS DEVELOPMENT IN THE CLASSROOM			
This schedule is intended to capture the level in which teachers develop non-cognitive skills in the classroom as a means to improve academic performance.			
	LOW	**MIDDLE**	**HIGH**
Thought provoking questions	Teacher failed to stimulate the students in inquiry-based activities that most classroom activities were from teacher to students	In some occasions, teacher tried to stimulate inquiry among students.	Very frequently, teacher tried to stimulate inquiry among students and help students initiate themselves in solving the problems.
Effectiveness in addressing individual learners problems that may arise	Teacher is ineffective at helping students with problems or difficult tasks or questions.	Teacher generally tries to help students who approach with problems or questions, but is not consistently effective at addressing these problems.	Teacher is consistently effective in addressing students' questions, concerns, and problems.
Using a variety of different tones in voice	There was almost no indication that the teacher used various tones in voice to engage further with learners.	Different tones in voice were used, however, little encouragement shown and not completely effective.	The teacher systematically used different tones of voice which provided effective encouragement to all learners.
Shows encouragement towards learners	Little encouragement shown by the teacher and learners left to work through lesson on their own.	Teacher shows slight encouragement but does not warm up to learners.	Teacher warms up to learners and shows a good amount of encouragement to the learners.

Provides adjustments to lessons depending on learners needs	Teacher failed to anticipate, was unresponsive to, and/or dismissive of students' needs and cues for support. Teacher appeared emotionally/ psychologically unavailable to students.	Teacher occasionally anticipated or was sometimes responsive to individual student's needs and cues for support, but at other times was more unresponsive. Teacher appeared somewhat emotionally/ psychologically available to individual students.	Teacher consistently anticipated and was responsive to individual student's needs and cues for support. Teacher appeared emotionally/ psychologically available to individual students.
Offer capable students appropriate challenges	Teacher did not provide appropriate challenges for capable students.	Teacher sometimes provided spontaneous challenges for capable students.	Teacher most of the time provided capable students with effective encouraging challenges.
Establish class rules for smooth running lessons	Teacher was either not aware of the importance of standards and rules for the class or did not try to set them up.	Teacher tried to set up standards and rules but failed to notice the consequences of unnecessary standards.	Teacher established classroom standards and rules successfully and brought them to create positive atmosphere for students to learn.
Promote active engagement of learners	The majority of students appeared distracted or disengaged.	The majority of students were passively engaged, listening to, or watching the teacher.	Most students frequently volunteered information or insights, responded to teacher prompts, and/or actively manipulated materials.
Promote active engagement amongst learners	Students rarely, if ever, engaged in positive interactions with one another.	Although there was not clear evidence of a strong emotional connection among students, there was an underlying positive tone to their interactions.	Students were clearly positively connected to one another in planned activities to support understanding.

Be a model of the expected classroom behaviour	Teacher failed to model the students with the expected targeted behaviour. Teacher occasionally modelled the students the expected behaviour. Teacher always modelled the behaviour to the students to support the students' achievement.	Teacher failed to model the students with the expected targeted behaviour. Teacher occasionally modelled the students the expected behaviour. Teacher always modelled the behaviour to the students to support the students' achievement.	Teacher failed to model the students with the expected targeted behaviour. Teacher occasionally modelled the students the expected behaviour. Teacher always modelled the behaviour to the students to support the students' achievement.

APPENDIX F: INFORMED CONSENT – MINORS

Minors assent form
Permission to participate in the study (Return slip)

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation. My parents / guardians are aware of my participation in the study.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the interviews and focus groups

I have received a signed copy of the informed consent agreement.

Participant Name & Surname (please print) _____

_____ _____

Participant Signature Date

Researchers Name and Surname (please print) _____

_____ _____

Researcher's signature Date

APPENDIX G: PROOF OF LANGUAGE EDITING

CARMEN NEL

EDITING SERVICES

072 377 5585

carmen@ufs.ac.za

CERTIFICATE OF LANGUAGE EDITING

This certifies that I have edited the research report detailed below for language.

Title:

"LEARNERS' AND SCHOOL LEADERS' UNDERSTANDING OF THE INFLUENCE OF NON-COGNITIVE SKILLS DEVELOPMENT ON ACADEMIC PERFORMANCE"

by

Christopher Tucker
Student No. 36104701

Regards

Carmen Nel

Carmen Nel
29 October 2025

Professional editing of articles, thesis, dissertations and books

APPENDIX H: PERMISSION TO CONDUCT RESEARCH

ST DUNSTAN'S COLLEGE

ST DUNSTAN'S COLLEGE
EST 1918

11 March 2024

Dear Christopher Tucker

Permission to Conduct Research

I am pleased to inform you that St Dunstan's College Preparatory School permit you to conduct research at our school for your minor dissertation entitled:

Learners and School Leaders' Understanding of the influence of Non-Cognitive Skills Development on Academic Performance.

We wish you all the best with your research and trust that this research will play a meaningful role in the education of our learners and educators, as well as those in the greater education landscape.

Regards

Craig McIlrath
Headmaster

ST. DUNSTAN'S COLLEGE
11 -03- 2024
Reg. No: 1998/022433/08
P.O. Box 13552, Northmead, 1522

54 Millburn Street, Rynfield, Benoni.
Telephone: 011 746 6500
Incorporated under Section 21 of the Companies Act 1973 as amended.
Company Reg No: 1998/022433/08. NPO Reg No: 036 162NPO.

ISASA
An Anglican Diocesan School
ieb

APPENDIX H: UNISA ETHICS APPROBAL

UNISA university of south africa

UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

Date: 2023/10/11

Ref: **2023/10/11/36104701/39/AM**
Name: Mr CN Tucker
Student No.:36104701

Dear Mr CN Tucker

Decision: Ethics Approval from 2023/10/11 to 2026/10/11

Researcher(s): Name: Mr CN Tucker
E-mail address: 36104701@mylife.unisa.ac.za
Telephone: 0820535255

Supervisor(s): Name: Dr OC Potokri
E-mail address: cnuvie@gmail.com
Telephone: 084 267 1740

Title of research:

Learners and School Leaders Understanding of the Influence of Non-Cognitive Skills Development on Academic Performance

Qualification: MEd Education Management

Thank you for the application for research ethics clearance by the UNISA College of Education Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period 2023/10/11 to 2026/10/11.

*The **medium risk** application was reviewed by the Ethics Review Committee on 2023/10/11 in compliance with the UNISA Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.*

The proposed research may now commence with the provisions that:

1. The researcher will ensure that the research project adheres to the relevant guidelines set out in the Unisa Covid-19 position statement on research ethics attached.
2. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.

Open Rubric

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

3. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the UNISA College of Education Ethics Review Committee.
4. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
5. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing.
6. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
7. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
8. No field work activities may continue after the expiry date **2026/10/11**. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number **2023/10/11/36104701/39/AM** *should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Kind regards,

Prof AT Motlhabane
CHAIRPERSON: CEDU RERC
motlhat@unisa.ac.za

Prof Mpine Makoe
EXECUTIVE DEAN
qakisme@unisa.ac.za

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za