Multicultural Education

FORCED OPPORTUNITIES FOR ADAPTIVE AND SUSTAINABLE LEADERSHIP REGARDING ICT IMPLEMENTATION IN THE VUCA ERA

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A B S T R A C T

The COVID-19 pandemic as the global tsunami of an era of Volatility, Uncertainty, Complexity, and Ambiguity (VUCA), presented school leadership teams with forced opportunities for adaptive leadership. Much of the adaptations have dissipated, hence the aim of this research was to examine the implications of forced opportunities for adaptive leadership by exploring the sustainability of such leadership practices post the pandemic.

Utilizing a qualitative comparative multiple case study, we scrutinised school leaders' experiences regarding the role of leaders in ICT implementation at three schools before, during and post the COVID-19 pandemic. This provided insights into the shift in leadership practices as it reflected the experiences of South African school leaders from polarizing realities. We employed two data collection tools: open-ended face-to-face, semi-structured interviews, and practical observations of the six school leaders.

We found that the school leaders in the educational settings demonstrated sustainable leadership in ICT implementation. Much of the adaptive leadership practices adopted had a limited time frame ensuring continuity of leadership practices throughout the COVID-19 pandemic. The readiness of school leadership to drive digital and technological transformation within their respective schools was raised, with socio-economic realities as the most prominent inhibitor or propellant.

Our recommendation for the Department of Basic Education, South Africa, is to consider ways to intentionally build capacity within teachers and school leaders regarding the use of digital and technological tools, the objective being to incorporate leadership practice on a digital and technological spectrum. We propose this exploration by considering tools like the Microsoft package for testing suitability, which is vital prior to introducing digital and technological tools at a whole-school level. Through our recommendations, our study makes a significant contribution to policy that underscores the advancement of digital and technological tools during and post the pandemic. This research adds to the existing body of knowledge pertaining to the VUCA era, which in our view made a prominent arrival during the COVID-19 pandemic.

A R T I C L E I N F O

1.   INTRODUCTION

South Africa is typified as a country with a polarizing economy which is reflected in the distribution of

wealth and the disparity in the education system (Parker, Morris & Hofmeyr, 2020; Spaull, 2013; 2019). Three categories of schools are prevalent in South Africa: "No-fee public schools, fee-paying public schools, and independent schools" (Franklin, 2017, p. 354). The reality is that a considerable proportion of learners in South Africa are registered at no-fee public schools which are described as poor, dysfunctional, and unable to equip students and learners adequately. However, learners who attend fee-paying public schools and independent schools are exposed to educational environments of a much higher standard and are more likely to attain improved academic results (Spaull, 2013, p. 444).

From March 2020, the swift transmission of the COVID-19 pandemic as a depiction of an era of Volatility, Uncertainty, Complexity, and Ambiguity (VUCA), caused notable losses in academic time and negatively impacted the day-to-day activities of curriculum delivery (Gustafsson & Deliwe, 2020; Hoadley, 2020; Hadar, Ergas, Alpert & Ariav, 2020; South Africa (SA) Department of Basic Education (DBE), 2020a). Subsequently, the Department of Basic Education introduced plans aimed at aiding school leaders with the challenging task of salvaging the academic year (Hoadley, 2020; SA DBE, 2020a). Irrespective of the amended curriculum plan and distribution of resources, the realities of the South African education system, coupled with the COVID-19 pandemic, appeared to amplify the resource gap between those found at either end of South Africa's current polarizing economy (Eadie, Villers, Gunawan, & Haq, 2021; Parker, et al., 2020).

Several studies highlight that school leaders of better resourced schools adopted divergent strategies, which included the adoption of digital and technological tools to minimize the ramifications of the pandemic on the academic school year (Mhlangu & Moloi, 2020; Ramrathan, 2020). We argue that the increased usage of technology during this period can be considered as the driving force towards the Fourth Industrial Revolution and the impact of the COVID-19 pandemic has indeed propelled school leaders to innovative practices well beyond their usual level of ingenuity. While Mhlangu and Moloi (2020) hold the view that educational institutions have significantly adopted digital and technological tools where possible due to the COVID-19 pandemic and that they are unlikely to revert to their former stance, we hold the view that in the absence of adequate material and human resources, there is a possibility that some schools will regress to their original state prior to the pandemic.

The word 'adaptive' points to the ability to change in line with circumstances (Oxford English Dictionary Online, 2022). The term 'leadership' can be aligned with leadership activities as revised by Leithwood, Harris, and Hopkins (2020), who expand on the core leadership practices which all successful school leaders execute. Bringing the ideas together means that leadership practices are executed in routine structures; however, when confronted with challenges, adaptive leadership enables school leaders to adopt adaptive responses to ensure continuity or advancement of the leadership practice (De Klerk & Palmer, 2020; Mukaram, Rathore, Khan, Danish, & Zubair, 2020). Adaptive leadership involves distinguishing challenges that require adaptive responses and entails a shift from routine responses to practices that have little to no grounding in organizational traditions.

We align ourselves to the several scholars (Eadie, et al., 2021; Parker, et al., 2020; Sahlberg, 2020) who alluded to the COVID-19 pandemic presenting opportunities for change within education. Bringing opposing ideas together presented the notion of "forced opportunities" which highlighted the tension produced by the COVID-19 pandemic that necessitates adaptive leadership practices. The authors allude to forced opportunities as conditions that are created by disruptors such as the COVID-19 pandemic which has resulted in adaptive leadership practices among all stakeholders in schools. Activities and practices which have longevity are regarded as being sustainable. The conception of leadership is grounded in the notion of "leadership as practice" as opposed to the traditional view of leadership which is vested in an individual (Raelin, 2011). Taken together, sustainable leadership refers to activities that are meaningful and enduring, which links to the conception of sustainable leadership as similarly conveyed by the work of Hargreaves and Fink (2006a) and Davies (2007). As the pandemic protocols ended, there was a need to explore the perceptions of school leadership on the sustainability of leadership practices adopted during the period of forced opportunities for transformation and adaption.

The research question that guided our study was, "What are the perceptions of school leadership of the sustainability of leadership practices regarding the implementation of ICT during the period of forced opportunities for transformation and adaption brought about by the VUCA era?

2. SCHOOL LEADERSHIP AND PRE-DEMOCRACY GOVERNANCE IN SOUTH AFRICA

The South African education system is frequently examined through the lens of its unequal history which has evolved into its current polarizing state (Grant, 2014; Maringe & Moletsane, 2015). Irrespective of the

historically unequal state of schooling, the view held by the Department of Basic Education under post-Apartheid governance is that effective school leadership is pivotal to successful schools and ultimately, notable learner progress (Spaull, 2019; Zuze & Juan, 2020). The opinion held is that challenges facing school leaders must be viewed in relation to context (Bush, Kiggundu & Moorosi, 2011; Bush & Glover, 2014). Therefore, school leaders within public schools will face a greater degree of challenge related to socio-economic issues than those in independent schools (Maringe & Moletsane, 2015; Zuze & Zuan, 2020). Furthermore, school leaders of "no-fee" public schools are often found in more challenging terrain than their "fee-paying" and independent school peers (Franklin, 2017).

Research conducted on educational leadership (Moorosi, 2021; Xaba, 2021) cannot overlook the historical remnants of the Apartheid era. Hoadley, Christie, and Ward (2009) and Naidoo, (2014) argue that school principals of previously disadvantaged schools executed a specific range of narrow tasks that were not inclusive of meaningful leadership roles relating to the curriculum, human capital, resources, and financial management. The fruit of the Apartheid education system, among other deficiencies, was the development of "ineffective leadership and management practices in historically disadvantaged schools.

An evaluation of the policies (SA, 1996b; SA DBE, 2016) shows a decentralized approach to school leadership (Mestry, 2017; Naidoo, 2019) which can be further segmented into two broad categories. The first refers to the ambivalent role of school principalship (Du Plessis & Heystek, 2020) which places the principal at the helm of the school management team made up of the deputy principal and department heads (Grant, 2014). The second introduces the concept of distributed leadership (SA DBE, 2016; Du Plessis & Heystek, 2020).

The introduction of the Standards of Principalship expounded on eight areas that encapsulate effective leadership in all schools in South Africa (Christie, 2010; SA DBE, 2016; Moorosi, 2021). Without delving too deeply into these eight areas, one can nevertheless easily extrapolate phrases that point to the active role which encompasses principalship, such as, "leading", "shaping", "managing", "developing" and "working with" (SA DBE, 2016, p. 10). From our analysis of these terms, it is easy to recognize the broadness of the role of principalship. To effectively comprehend the role of school leaders we must distinguish between terminology often used interchangeably.

Leadership is perceived as a relational interaction involving the act of "influence", whether "formal or informal", between leader and stakeholders to accomplish a purposeful "outcome" (Christie, 2010, p. 695). The task of leadership is to inspire the collective actions of stakeholders toward one universal vision for the school. Similarly, Naidoo (2019) links leadership with vision and the need to direct developmental aspects of the school. Management, on the other hand, is viewed as systematic mechanisms for the effective execution and accomplishment of strategic operations which includes the management of educational assets such as finances and human and physical resources (Christie, 2010; Naidoo, 2019). The role of school leadership under the new dispensation must be viewed as an interaction between leadership and management, an interplay between the two concepts that must work hand in hand (Chikoko, Naicker & Mthiyane, 2015).

3. DISTRIBUTED LEADERSHIP IN SOUTH AFRICAN SCHOOLS

The dominant belief about school leadership is that it is confined to principalship (Naicker & Mestry, 2013). Research by Grant (2014) indicates that educators frequently conflate the notion of leadership with the station of principal. In effect, leadership is derived from the individual fulfilling the role of principal. This view has been questioned with the introduction of the notion of 'leadership as practice' (Raelin, 2011). The growing body of work (Raelin, 2011; 2016) highlights a significant shift in focus from viewing leadership as practices exhibited by standout individuals who demonstrate specific skills associated with successful leadership, to leadership as a collection of distilled practices. 'Practice' in this sense, refers to the day-to-day activities employed not just by a school leader but also through collaborative processes to obtain specific results (Raelin, 2011; Endrissat & Von Arx, 2013).

The distribution of leadership within a democracy underpins a democratic state. This is reflected in the Schools Act (SA, 1996b) which intentionally introduced provisions that challenge longstanding, stereotypical bureaucracy in public school leadership through the establishment of a democratically chosen school governing body (Grant, 2017; Lumby, 2019; Xaba, 2021). This policy pioneered a greater degree of democratic and participatory governance in relation to the school community. Here, principals are forced to share the scope of authority for school governance with community stakeholders (Du Plessis, 2021; SA, 1996b).

The outcomes of Du Plessis and Heystek's (2020) research indicates that many school leadership

frameworks require reorganization from bureaucratic, hierarchical systems to heterarchical interactive frameworks which encompass distributed leadership. Scholars suggest that school leaders take up a facilitatory position whereby formal roles are not redundant but reframed to better allow for the kind of social interaction required in distributed leadership. The challenge is that South African school leaders are both encouraged to adopt emergent leadership strategies and simultaneously inhibited by prescripts in core educational legislation such as the Schools Act (SA, 1996b; Harris, 2005). Indeed, school leaders face a challenge in that they must maintain a professional sense of responsibility but are essential to the effective establishment of distributed leadership, which may require an expansion of responsibilities beyond official school staff.

4. SCHOOL LEADERSHIP PRIOR TO THE COVID-19 PANDEMIC

The inclusion of "top-down and bottom-up leadership" structures has generated "top-down and bottom-up dissonance" (Du Plessis & Heystek, 2020, p. 850-851). This portrays the challenges faced by school leaders in trying to blend stereotypical bureaucracy (Lumby, 2019) with emergent leadership models (Botha, 2013; 2014). The authors (Du Plessis & Heystek, 2020, p. 850) suggest that many school leaders fall back on bureaucratic practices to avoid the negative outcomes of implementing "bottom-up" engagement. Also important is the infiltration of policies, agendas, and guidelines from the Department of Basic Education (DoE) and the expectation to encourage interaction, participation, and collaboration from teachers and other stakeholders. School leaders are required to work alongside school governing bodies in public schools (Basson & Mestry, 2019; SA, 1996b; Zulu, Bengu & Mkhize, 2021). Although school governing bodies are a product of the legal framework (SA, 1996b), research has shown that school governing bodies can work against the agenda of both the Provincial Department of Education and the school leadership (Xaba, 2021; Zulu, et al., 2021).

Additionally, school leaders experience undue pressure from compounding socio-economic challenges (Chikoko, et al., 2015; Maringe & Moletsane, 2015) while policies such as the Schools Act and the Standards of Principalship delineate vital shifts in school leadership necessary to transform education in South Africa (SA, 1996b; SA DBE, 2016). However, as suggested by several scholars (Du Plessis & Heystek, 2020; Zulu, et al., 2021) there seems to be a significant lack of congruence between application of theory to practice, and the issue may be diagnosed as a misalignment between the leadership mechanisms adopted and the context and policy.

5. SCHOOL LEADERSHIP, COVID-19 AND THE VUCA ERA

School leaders are believed to adapt their daily activities for the benefit of the whole institution. This is congruent with the view of Leithwood et al., (2020), and is especially significant in schools facing particularly challenging contexts, as a change in leadership was required in post-apartheid South Africa to bring about needed transformation in what was considered an unequal education system (Bush, 2007). Moreover, COVID-19 has created an even greater need for a shift in leadership today, as we are confronted with the realities and ramifications of the pandemic (Harris, 2020; Harris & Jones, 2020; Mbhiza, 2021). A type of metaphorical global tsunami created the VUCA era, at a time when disparities still exist in many South African schools (Kirori & Dickinson, 2020; Jansen, 2019).

Before the COVID-19 pandemic, several research studies noted the impact of the complex and ever-changing education world (Doucet & Evers, 2018; Evangelin, 2020; Hadar, et al., 2020) and subsequently, also on educational leadership (Browne, 2020). To capture the importance of the era we live in, the term VUCA was conceived. VUCA in its expanded form means Volatility, Uncertainty, Complexity, and Ambiguity (Johansen, 2007 as cited in Browne, 2020, p. 4). A vital starting point is to comprehend the meaning and implications of each term that makes up the abbreviation, VUCA. The word 'volatility' refers to the frequency of changes experienced, and a sense of instability - despite the access to appropriate data (Bennett & Lemoine, 2014; Browne, 2020; Hänti, et al., 2021). However, 'uncertainty' is associated with having little to no access to data, thus creating a scenario with many unknowns, including the inability to predict subsequent outcomes (Bennett & Lemione, 2014; Browne, 2020; Minciu, Berar & Dima, 2019). The term 'complexity' addresses the multifaceted challenges school leaders are often faced with, requiring inventive solutions (Bennett & Lemione, 2014; Browne, 2020; Latif & Ahmad, 2020). The South African educational landscape is the epitome of complexity, especially in reference to schools facing compounding challenges (Chikoko, et al., 2015; Zulu, et al., 2021). The final term, 'ambiguity', refers to the inability to decisively determine how to respond appropriately to a situation, due to the obscurity and vagueness thereof (Hänti, et al., 2021).

Taken together, Volatility, Uncertainty, Complexity, and Ambiguity describe a world that is experiencing change at an alarming rate. The importance of ongoing leadership training and preparation which would enable leaders to read the proverbial "VUCA" weather and respond with "Vision, Understanding, Clarity and Agility" becomes a priority (Lawrence, 2013, p. 6-12).

COVID-19 pandemic, the global tsunami of the VUCA era

The COVID-19 virus was declared a global pandemic by the World Health Organization (WHO) on the 11 March 2020, highlighting the prolific rate at which the virus spread, with 57 countries reporting infections around that time (Ghebreyesus, 2020). To better understand the implications of the COVID-19 pandemic as a global tsunami of the VUCA era, an analysis of the impact of the pandemic was conducted. Here, the aim was to isolate the initial effects on education according to the framework constructed by Hänti et al., (2021) and data provided by Statistics South Africa (Statistics SA, 2022).

The initial and continued pandemic required the endurance of rampant change in the educational space (Du Plessis, 2021; Mutongoza, Olawale & Mzilikazi, 2021; Spaull & Van Der Berg, 2020). The education space was negatively affected by the rapid spread of the pandemic resulting in a significant loss of academic time and impacted the day-to-day activities of conventional curriculum delivery (Gustafsson, et al., 2020; Hoadley, 2020; SA DBE, 2020a). However, not all schools were equally affected by COVID-19, because of the polarizing context of the South African education system stemming from the perpetuation of disparities rooted in "historical inequalities" (Spaull, 2019).

Statistics South Africa (Statistics SA, 2022:11) indicates that 15% of South African schools in KwaZulu Natal offered learners the opportunity to learn remotely, while the balance of schools adopted rotations and platooning. Of the 15%, it is uncertain how many utilized digital and technological tools, but data indicates that 40% of learners aged between five and 24 in KwaZulu Natal had access to mobile devices, whereas access to computers and tablets was comparatively low at 29,4% and 8,9% respectively (Statistics SA, 2022, p. 19-20). The data reveals that 60,1% of learners accessed the internet using cellphones in KwaZulu Natal (Statistics SA, 2022, p. 27). Furthermore, learners within urban communities were more likely to have access to remote learning using mobile devices in comparison to learners based in rural communities, with quintile one recording the lowest usage and access (Statistics SA, 2022). The data highlights a significant increase in the number of individuals accessing the internet through cellphones from rural areas in comparison to previous years (Statistics SA, 2022). Though Du Plessis' (2021) study focuses on a specific geographical area in South Africa, it nonetheless highlights that COVID-19 exposed school leadership to unprecedented challenges, many of which were compounded by pre-existing circumstances.

6. COVID-19: FORCED OPPORTUNITIES FOR ADAPTION AND TRANSFORMATION

The COVID-19 pandemic negatively impacted education globally and locally (Di Pietro, et al., 2020; Mahlangu & Moloi, 2020), reflecting the notion that the pandemic presents school leadership globally with a forced opportunity for adaptation and transformation (Berry, 2020; Eadie, et al., 2021; Waite, & Arnett, 2020). In their work entitled "Forced Opportunity: Considering Isolation and Equity When Implementing Online Learning", Moore, Tumy, and Miller (2020) address concerns regarding the impact of adaptions adopted due to the pandemic on learner wellness but recognize that the pandemic does present conditions for change in line with the future world of work. Likewise, Eadie et al., (2021) acknowledge the opportunity presented by the pandemic to revise South African educational directives for the benefit of learners confronted with a VUCA (Browne, 2020) world. This is evidenced by the number of school leaders, although limited in scope, that endeavored to implement digital and technological tools to enable the continuation of education during the period of COVID-19 (Du Plessis, 2021; Mhlangu & Moloi, 2020; Mutongoza, et al., 2021). However, Hoadley's (2020) cases point to the strong view that not all schools were able to exploit the opportunity, highlighting that affluent schools were more likely to implement such practices. While data from Statistics South Africa does align with this view, it provides further interesting insights which indicated that only 27,6% of rural learners' country-wide had access to mobile devices for remote learning (Statistics SA, 2022:18). Once again, this is only a small fraction in terms of the learner population in rural areas within the country.

Adaptive leadership in response to forced opportunities for adaptation

The authors found Heifetz and Laurie's (1997, p. 127) seminal publication called "The work of leadership" reliable as it spoke to the need for school leaders to create "pressure cooker conditions" to enable productive interactions within organizations. The pandemic presented "pressure cooker" types of circumstances alluded to by Heifetz and Laurie, 1997:127). In line with this, De Klerk and Palmer's (2021) work echoes the idea that the pandemic forced school leaders to adopt adaptive leadership practices to respond to the volatility, uncertainty, complexity, and ambiguity encountered. In this sense, the pandemic pushed school leaders to adopt practices that are malleable to contextual realities, inducing a greater degree of collective ingenuity (De Klerk & Palmer, 2021; Mukaram, et al., 2020).

Kramer (2016, p. 27, 30-32) suggests that for "adaptive leaders" to effectively tackle "adaptive challenges" they need to develop not just divergent practices, but divergent "mindsets", or "mental models" that underpin behaviours, feelings, and perspectives and proposes that leaders must intentionally endeavor to unlearn and relearn. This correlates with the work of Grant (2021), who recommends that individuals develop the capacity to think again, that is, having the ability to rethink their ideologies by adopting a scientific thinking skillset in line with three pivotal areas linked to adaptive leadership (De Klerk and Palmer, 2020, p. 176). The first area of transformation is the need for greater emotional intelligence. The second area of transformation highlights that educational leaders must be receptive to opportunities for growth, and finally, the third area of transformation encourages openness to adaptive practices together with considerable resolve for innovation. The effectiveness of the adaptation is dependent on the ability of the school leadership to link the change to long-term objectives and future needs (Zhao, 2020; Zhao & Watterston, 2021), thereby ensuring the sustainability of the actions taken. Bearing this in mind, one can suggest that adaptive leadership is a mechanism for the sustainability of leadership, according to Dunn, (2020).

Sustainable leadership during COVID-19

Linked to Brown's ideology of sustainability and key points underscored in the Brandtland discourse (Bottery, 2012), Hargreaves and Fink (2006a, p. 26) describe "sustainable educational leadership" as an approach that aims to "preserve and develop deep learning for all that spreads and lasts, in ways that do no harm and indeed, create positive benefit for all around us, now and in the future." Likewise, Davies (2007, p. 1) states that sustainable leadership is comprised of core elements that cultivate "longer-term development" and establishes a "leadership culture" founded on "moral purposes" making "success…accessible to all." In both instances, there seems to be a significant emphasis on the actions executed "now" and the resultant effect on the "future".

Dishon & Gilead, (2021) present an interesting argument that links to components of sustainable educational leadership. They discuss the well-documented ideology of a fast-changing world and the resultant development of 21st-century skills-based educational policy generated by bodies such as the 'Organization for Economic Cooperation and Development' (OECD) as a framework to better prepare learners for the unknown futures they may face. The challenge here is whether the adaptive leadership practices adopted increased the use of digital and technological tools for leading and learning (Mhlangu & Moloi, 2020). Are these leadership practices sustainable post-COVID-19? A vital contribution here is the discourse presented by Ally and Wark (2020) who advocate the wise use of Fourth Industrial Revolution tools in education to aid countries in accomplishing sustainability and thereby supporting the global Sustainable Development Goals. This raises numerous considerations about adaptive digital and technological practices adopted by school leadership and the sustainable benefits derived. Here, the importance of sustainable leadership principles underpinning adaptive leadership activities is highlighted. Therefore, when adapting the key leadership practices identified by Leithwood et al., (2020), bearing in mind the features which underpin sustainable leadership to prevent short-sighted reactions and ensure long-term benefits, become crucial, according to Davies, (2007) and Lambert, (2011). The key questions which come to mind are:

Are we ready for another global disruption such as the COVID-19 pandemic?

Have school leaders acquired sufficient lessons from this VUCA era?

7. **METHODS**

Research paradigm, approach, and design

The researchers adopted a constructivist paradigm to frame this study based on the perspective and experiences of the school leader respondents (Creswell & Creswell, 2017; Merriam & Tisdell, 2016). A qualitative multiple case approach was conducted to explore the perceptions (Creswell & Creswell, 2017; Gupta & Awasthy, 2015) of school leaders pertaining to the implementation of adaptive leadership practices and the sustainability thereof (Merriam & Tisdell, 2016). The researchers tried to comprehend and describe the respondents' experiences and viewpoints about leading through the pandemic within the South African educational context by choosing four points of reflection: Before the pandemic, at the onset of the pandemic, as the pandemic progressed, and finally, beyond the pandemic. We aimed to identify the similarities and differences in the experiences of school leadership in relation to the focus areas.

Participants and research sites

In keeping with the qualitative orientation, respondents and research sites were selected through purposive sampling (Merriam & Tisdell, 2016; Robinson, 2014). The sample comprised of six respondents: two school leaders from one no-fee public school, two school leaders from one fee-paying public school, and two school leaders from an independent school, with all schools being in the province of KwaZulu Natal, South Africa. Public school one (PS One) is in an urban area and is a quintile five fee-paying primary school. PSL1 (principal) has 32 years of experience. PSL2 is a departmental head, currently serving in the grades 4 and 5 phase, with 16 years of experience. Public school two (PS Two) is established in a residential area that is surrounded by semi-informal settlements, is a no-fee, quintile one educational institution with a largely homogenous school community. PSL3 (principal) has 24 years of experience. The second school leader is a deputy principal (PSL4) with 14 years of experience in education. Independent school one (IS One) is an international for-profit educational institution with a diverse school community. ISL1 is a principal with 27 years of experience. ISL2 is a deputy principal with 17 years of experience in education.

Data collection and analysis

Data was collected through semi-structured, face-to-face, individual audio-recorded interviews and observations (Brinkmann, 2020; Madondo, 2021). The researchers intentionally selected individual interviews as a data collection tool, to garner the personal insights and experiences of respondents. As such, the positive or negative impacts of leadership are likely to reflect in the management of staff and resources. The observations made by the researchers brought to life the shared experiences and insights conveyed in face-to-face interviews and we gathered shorthand field notes while on the school site and interacting with respondents in the face-to-face interviews (Mulhall, 2003).

Thematic analysis was utilized to "identify, analyze and interpret" "patterns or themes" from transcribed interviews and observations, using a constructivist lens (Braun & Clarke, 2006, p. 297). The objective here was to distil meaning from the respondents' experiences (Gupta & Awasthy, 2015) as it relates to the sustainability of leadership practices during the pandemic to address the main and secondary research questions posed (Merriam & Tisdell, 2016). The researchers identified codes, categories, and themes from the analyzed data (Merriam & Tisdell, 2016, p. 204). Braun and Clarke (2006, p. 82) argue that the significance of a "theme or pattern" is dependent on its recurrence within a "data item and across the entire data set." This served as a guide to the researchers in implementing the thematic analysis process. Before finalizing the themes by assigning titles, we undertook a revision of the codes and themes for accuracy.

To ensure the trustworthiness of this study, an audit trail was maintained alongside a personal reflexive journal to keep an extensive record of decisions, methods, and adjustments throughout the study (Carcary, 2009). Member checks were utilized to ensure that distilled meaning derived from analysing the interviews were an accurate portrayal of the conversations (Merriam & Tisdell, 2016). This was achieved through the process of clarification and confirmation during the interview process and by sharing transcribed interviews with those respondents willing to verify content. We ensured that neither the school names nor the respondents' names were disclosed (Madondo, 2021; Opsal, et al., 2016). Furthermore, we adhered to the requirements of the Protection of Personal Information Act 4 (SA, 2013): all audio-recorded interviews and field notes were retained on a device that had anti-virus software and was password protected. The protocols of the COVID-19 pandemic (SA Department of Co-operative Governance and Traditional Affairs, 2020) required us to adhere to social/physical distancing, hand sanitizing, and the wearing of facial masks (SA DoH, 2020a). Hence interviews took place in well-ventilated venues. Permission to conduct empirical research was obtained from the Department of Education. Additionally, the Faculty of Education provided ethical clearance to conduct research, (Certificate

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Due to the limited scope of this empirical study which was restricted to three schools belonging to three different quintiles (according to the poverty index) in one large province in South Africa, we cannot generalise these findings and recommendations to a larger population. When considering the measures adopted/observed to ensure the trustworthiness of this study, we argue that this study's findings has authentically contributed to the existing body of knowledge regarding the COVID-19 pandemic, school leadership, adaptive leadership, and leadership sustainability.

8. FINDINGS AND DISCUSSION

The road to sustainable leadership

School leadership is often bound by the notion of self-sufficiency and displaying resistance to the input of others. For leadership to be sustainable, it needs to be spread out and one must be willing to learn from others (Davies, 2007; Hargreaves & Fink, 2006b). This perspective is congruent with the statements conveyed by ISL1 whose insights build on the previous point, namely, the need to rely on others. Considering this, ISL1 notes that: "acknowledging weaknesses as well is a big step in leadership, I don't know how much this has to do with COVID but to surround yourself with people that allow you to grow in things that you're not good at, to strengthen the things that you're not good at, and then to focus on the things that you're good at." If the pandemic taught school leaders anything, it is that you cannot do it all, you need to "surround yourself" (ISL1) with a team of people who can step in to help. PS Two demonstrated this around the use of technology, where there were individuals who were more equipped to use technology and provided support to those who found it challenging, as substantiated by the following extract from PSL4, "there's a lot of leaders out there that can't use technology like that, as simple as it is and fortunate enough, I'm au fait with the use of technology. And I've assisted others in my school."

In the absence of consistent parent and guardian support and in the face of rising socio-economic challenges, the school leaders of PS Two have had to develop creative solutions to effectively serve the school community. Therefore, it may be inferred that the ongoing challenges that PS Two had been exposed to prior to the pandemic, have served as a preparatory mechanism for the inculcation of innovative practices which align with sustainable leadership. The school leaders have not merely sought short-term solutions to long-term problems, but they have also implemented an intentionally creative strategy which is reliant on the support of others, as described by PSL3:

"One of the strengths that we have is that as a school we decided to take community base[d] educators. We took all the youngsters who are studying, we, even now we use them in school just to do remedial work and all those things. …in that way, it assisted the school to have that link with the community, that understanding of who the community is who stay with us."

This is an example of organizational processes which have length and breadth (Hargreaves & Fink, 2006a) and are intentionally developed and implemented to "serve the community", as echoed by PSL4. In addition to this, the physical design of the school property has been constructed to support the community which it serves. Two physical structures were notable, namely, two large awnings to accommodate community meetings, and an industrial kitchen which was established for large-scale daily feeding. There is a significant link between the organizational processes developed and the physical structures established in PS Two.

With the inception of the pandemic, school leaders were faced with a profound challenge. PSL3 addresses the reality facing the school community of PS Two because of the pandemic in this way:

"So, our learners get food from school. So, lockdown because of the level of poverty, lockdown was not so much an issue to them…but my point is that they suffered a lot. And how to address it, of course, at our school, we try just to open the feedings scheme. We take whatever food, maybe sometimes we do hampers, take it, call the parents, who come and take those hampers and do all those things. But my point is that what was more important to them was not COVID it was poverty… So as a leader in a school, we must deal with those dynamics…we had to do some hampers and all those things to … assist those families."

The COVID-19 pandemic "forced school leaders to think outside the box" (PSL4) and "to take it day by day, to try to unpack the situation and to see how you deal with it" (PSL3). Here, school leaders had to suspend normal practices and adopt temporary strategies like making "hampers" (PSL3) to sustain the service they provide to the school community. As life continued through the pandemic, these school leaders made further

adaptations to accommodate the changing circumstances to ensure continuity of services.

Two levels of meetings regarding the curriculum are identified. The first meeting is "with [the] academic head" (ISL1) and "every grade…" (ISL1) which takes place "every single week to plan" (ISL1) where "you could bounce ideas and all sorts of stuff" (ISL1). The second meeting is with the "academic monitoring committees, where the curricular needs of the learners" (ISL1) are "discussed" (ISL1). This demonstrates the importance of collaboration and drawing on the skills of the internal school community, which aligns with distributed leadership and links to sustainable practice (Hargreaves & Fink, 2006b). Much of this "happened face to face" (ISL1) prior to the pandemic, but later they had to resort to "Teams" (ISL1), which enabled the continuation of the central leadership practice through "a screen" (ISL1) and the "creation of folders on Teams" (ISL1) "pre-loading" (ISL1) the "curriculum" (ISL1) and "documents there" (ISL1).

Professional and personal development: the "slow cooker" and the "pressure cooker" opportunities

In analyzing the data several words, phrases, and terms utilized point to various professional and personal "opportunities" for development. Although the word "opportunity" was not explicitly used by all respondents, there were definitive experiences conveyed by each school leader which distinguished what may be referred to as "slow cooker" opportunities and "pressure cooker" opportunities for development (Heifetz & Laurie, 1997).

Respondent revealed the important relationship between opportunities and their progressive rise to more formal leadership designations. The analogy which emerged is that of a slow cooker which is reflected by the gradual opportunities for development assumed by the various school leader respondents as they rose to their current professional designations. PSL1 alluded to the notion of "opportunities" resulting in development and growth by stating that he "was given a lot of opportunities" (PSL1). The participant narrated this journey to becoming a leader, encapsulating the formative years of professional development, aptly conveying several ideas relevant to this theme:

"…I was in my first year of teaching, organizing the prefects' leadership course and fundraisers and coaching soccer and cricket. I always remember my principal calling me and then saying you've got cricket fixtures, 11 of them. So, the whole of the first term, it's every Saturday, and you're going to be umpiring. And I said, Mam, I've never umpired. She said to me, go and learn. And I did, I used the dads to help me, I stood next to them and learned."

PSL3 reminisces on his rise to leadership which began with him starting as a "volunteer". In his words he "wanted to acquire more skills and build himself and to show what he can offer". Although PSL3 views his rise to leadership as "automatic" (PSL3) "because he was the first of those African who came in", however, he makes several statements that supports this idea of intentional and progressive development of leadership acumen and formal leadership roles:

"I started here in 2003. As a volunteer, I was not paid, just offered my service. And after a while, then I became temporary, got paid. Then in 2005 I got permanent". "We have what we call champions whereby each term you will have one educator that will be a champion of that term, assisted in molding and shaping leadership. So, I think I benefited from all those inside and outside. That's how my leadership developed and grew". "I've played different roles, started as PE educator, isiZulu educator on and on."

A picture is created of progressive development of leadership acumen through the taking on of smaller roles and designations, almost as if the young teacher must use the "opportunity" to develop skills and prove that he or she is capable of handling greater leadership responsibilities. An image of "slow cooker" conditions for deliberate opportunities for development is revealed, that is, the gradual assumption of relatively insignificant roles which progressively lead to "more and more" (ISL1) meaningful positions in leadership.

Moreover, the pandemic threw school leaders into conditions which were volatile, uncertain, complex, and ambiguous requiring divergent practices, which initially had no precedent (Browne, 2020; Harris, 2020). On this ISL1 notes that, "we had to adjust so quickly when the pandemic hit, I mean, stuff that we weren't prepared for, I mean, systems, everything moved" (ISL1). PSL1 states that, "And if we thought that everything else was a very big challenge in our school, these became minor challenges. For me, as a school leader, I did not know what I was going to do." PSL3 echoes this sentiment: "Yeah, I will say it was just day by day. That's why I call it an experiment. Because the day by day dealing, the way of dealing with, coming up with different methods became important."

Extending the analogy, the COVID-19 pandemic seems to have "forced" (PSL3), "intensified" (PSL4) and "heightened" (ISL1) circumstances, creating "pressure cooker" (PSL2) conditions for opportunities for development. This idea of "pressure cooker" conditions for opportunities for development was reinforced by the language articulated by all respondents. Phrases like "we became" (PSL1), "we had to develop…" (PSL1), "we become" (PSL2), "you had to learn" (PSL3), "forces" (PSL4), "we had to make" (ISL1), and "you've got to be more" (ISL2) solidifies this imagery. School leaders almost overnight had to adopt different practices, and although many reflect a "trial and error" (PSL1) nature, the pressure of the conditions required a swift adjustment in almost all spheres.

The data pointed us to three definitive areas of accelerated development due to the pressures of the COVID-19 pandemic: emotional intelligence (EQ) (De Klerk & Palmer, 2021), technological advancement, and innovative thinking. However, of the three, EQ was the most predominant, while the other identified areas of accelerated development varied in relation to their contextual realities. All respondents' experiences and responses to the pandemic highlight a need to display empathy, sympathy, and understanding. The pandemic required school leaders to consider the emotional wellbeing of staff and learners. ISL1 makes a comment which effectively reflects the mindset prior to the pandemic: "So life wasn't as difficult and you didn't take, sounds terrible, but the wellbeing of people into consideration as much, just, you did it and you moved on." Building on this point, ISL1 makes further statements which can be viewed as revelatory of leadership practice arising from the pandemic: "leadership is managing, and I think this time around, it was more about managing people than it was before COVID. Before COVID you manage people, but you manage the situation better. Now, when COVID hit, you had to manage people. And you had to do it well, because you had to keep people motivated all the time now" (ISL1).

PSL1 and PSL2 strengthen this idea with their responses, highlighting the significance of wellness beyond the COVID-19 pandemic. PSL1 offers this: "become a more patient more empathetic leader, because, I've had to be, um, during this time and I think that's a skill, it will go right into the things as leadership goes." This statement conveyed by PSL2 reflects the development of listening skills, the capacity to show understanding and the ability to demonstrate sympathy due to the pressure of the pandemic and the view that these will endure beyond: "Definitely communication and the listening…, you know, being more sympathetic, being able to listen to someone and an understanding because sometimes, you know, the people panic for nothing."

The synergy between the "slow cooker" and the "pressure cooker" provided opportunities for learning and unlearning and relearning among school leaders. Of the "slow cooker" opportunities there is a vital pressure difference in the conditions of growth and development, whether is it "exposing" one to "post level two activities" (PSL4) or learning "cricket" from "the dads" (PSL1), the learning appears to be gradual and even paced. In contrast to this is the hotbed of "forced" opportunities for development generated by the pandemic. Here, the pandemic has created ideal "pressure cooker" conditions which have accelerated the inculcation of capacities that may otherwise have "gradually" developed in "slow cooker" circumstances - or not at all. One can suggest that the "pressure cooker" conditions resulted in an adaptation of leadership practices in response to the need arising from the COVID-19 pandemic.

The readiness of school leadership to drive digital and technological transformation

We examine the readiness of school leadership to drive digital and technological transformation within their schools. Respondents remarked that the pandemic propelled them to utilize digital and technological tools to a greater degree. This is relative to the realities of each school and what resources were accessible. The findings appear to highlight that while socio-economic realities significantly influenced the accessibility of digital and technological tools, and the extent of integration, it is not the only lever of influence.

Responding to the question regarding challenges faced prior to the pandemic, ISL1 states that "when parents pay exorbitant school fees, they are more challenging". This indicates that IS One is a well-funded institution, which stands in contrast to the descriptions of PS One and PS Two. The depiction of PSL2 is as follows: "a large group of low-income families, and then a lot of the working class, many of the parents work very hard to pay school fees here, that doesn't just come easily for them." PS Two has more hardy conditions as evidenced by PSL4: "Everything can be attributed to societal issues, because we serve the poorest of the poor. We have a semi-informal settlement here. You've got your impoverished conditions, you've got the drugs, alcohol that has taken effect, you know, takes negative effect on our learners."

We assumed that school leaders in more challenging contexts experience greater difficulty in mobilizing digital and technological tools as opposed to their more affluent counterparts (Hoadley, 2020). However, the

data provides interesting insights in this regard. To reduce the negative effects of the disruption caused by COVID-19, and enable the continuation of duties, school leaders globally utilized digital and technological tools to a greater degree (Di Pietro, et al., 2020; Mhlangu & Moloi, 2020; Ramrathan, 2020). This increased usage of digital and technological tools is viewed as an "accelerator" of the Fourth Industrial Revolution (Ross & Maynard, 2021). PSL4 points out that this "forced" adoption of digital and technological tools, has boosted the Fourth Industrial Revolution, by stating that, "This can be a generational thing as well. But it's forced a lot of leaders to embrace the Fourth Industrial Revolution as well, technology." Similarly, PSL3 expresses his personal growth and development in this regard: "We learn a lot a lot from this, especially with technology, we ran meetings virtually, by zoom or whatever. But you learn a lot from now using technology."

However, the data indicated that the choice of digital and technological tools accessible is influenced by the socio-economic realities of the respective school community. This is clear from the insights conveyed by the respondents of PS One and PS Two. With the disruption caused by the pandemic, PSL1 highlights the accessibility of cellphones, indicating that, "Most people have got phones. So, they became the most popular way of sending work across to. We did use laptops and iPads, and everything else. The internet was another tool that we relied on quite heavily." Likewise, PSL3 and PSL4 indicated that they push the use of cellphones among the staff within their school community: "We encourage our educators to use cellphones, because we don't have much technology. Although our educators have laptops, we don't have projectors and white boards, therefore we encourage them to use cell phones."

PSL4 similarly indicated that, "We advocate for the use of the cellphone as well, everyone it's like a computer in your hand." Although PS One and PS Two had access to laptops, the school leaders opted for the use of cellphones as it was the most accessible tool that can drive digital and technological integration. This is in line with data conveyed by Statistics South Africa which points out that cellphones are the most accessible digital and technological tool across South Africa, making it a viable option for widespread use in education (Statistics SA, 2022, pages 18,31,49). During this pandemic, we created a WhatsApp group as one of the alternatives that we use to communicate with our parents. And they were also responding on the WhatsApp groups. So that is one way we communicated with our parents yeah" (PSL3). "The communication was a massive challenge. That's when we established WhatsApp groups, and we now continue with WhatsApp because if there was any good that came from this was the class WhatsApp groups and we get the parents involved" (PSL1).

It was unclear if this tool was used at a whole-school level (rather than used by certain teachers only) prior to the pandemic, but the school leader indicated its use as a communication tool used with parents during the pandemic, mentioning the following: "and then, on the parents' WhatsApp groups" (ISL2). Regarding this, PSL1 notes that PS One, "will never stop the WhatsApp groups, because these just been so successful." It is interesting to note that apart from the efforts to use WhatsApp during the pandemic, PS Two has little to no digital footprint, not even a webpage or Facebook page. In contrast, PS One and IS One have a significant digital footprint in the form of school-specific webpages and Facebook pages and IS One also has an Instagram and YouTube account. The difference in the extent of digital and technological integration is further conveyed by PSL3 of PS Two: "Even though we will refer that technology is an alternative. But we could not put it into action because of we didn't have those resources that require, you see, us to use that…in case for instance if an educator goes prep…they will use the laptop or cellphones you see."

While the school leaders of PS Two appear unable to integrate digital and technological tools at a whole-school level, PSL4 provides insights into areas where they had grown. They created a "Google form" and send these out to parents, and these forms are analyzed, and decisions are taken. This school also encouraged the governing body to work on an electronic system, communicating via email. "We communicate via email, with educators, submission of marks by email as well." PSL4 also notes that, "Now with us, we are au fait with technology. In fact, we rely on it a lot. PSL4 makes another important point, namely, the need for school leaders to incorporate their leadership practices into a digital format where appropriate. This perhaps highlights the influence school leaders have in the adoption and integration of digital and technological tools even in challenging conditions, which speaks to the mindset of leadership in this regard.

In IS One, better socio-economic conditions enabled the adoption of digital and technological tools such as MS Teams at a whole-school level, yet the school leadership expressed concerns over the quality of learning with the continued use of the online option. The respondent notes that the "online thing created a different animal altogether. This is further reflected in the statement made by ISL1: "Now the next time around now, as I had a lot of calls for online, but I just have to be courageous to teach online" (ISL1).

The extrapolated data points to the significant influence socio-economic conditions have on the range of digital and technological tools available and the extent to which they are integrated. Factors such as the mindset of school leaders regarding the Fourth Industrial Revolution, their ability to integrate leadership practices on a digital spectrum, as well as their beliefs about quality learning are all levers of influence which impact the ability of school leaders to drive digital and technological transformation.

The respondents demonstrated an understanding that in times of disruption, one needs to be able to quickly and effortlessly adopt practices which allow the school to continue to function. In this sense, the school leaders need to demonstrate long-term contemplation instead of ongoing patchwork solutions to ensure that the school can remain open and continue creating opportunities for learning. This speaks to the need for synergy between organizational processes and physical structures.

 Sustainable leadership is about leading today for tomorrow, mindfully considering the resources one has on hand, drawing on support from one's school community for the benefit of learners. That is spreading leadership beyond the designation of principalship. This was particularly evident in the second research site where the curriculum was managed by an academic head, the culture department was managed by someone outside the school management team and the sports department had a dedicated person to manage all sporting activities. The researchers observed titles on the doors within the school office building which reflected these designations, indicating a distribution of responsibilities.

The respondents reinforced the idea that opportunities for "moulding and shaping" of "leadership" was created when roles were assumed by the inexperienced within the school environment. They argued that a connection between doing and learning was created by opportunities. The respondents also alluded to acknowledgements from previous leaders afforded them opportunities at different levels and their engagement in these opportunities like "mentorship programs" allowed them to flourish in leadership skills. The respondents alluded to being given recognition for the important roles that they execute. This recognition should take the form of identifying, "recognizing", and "exposing" young educators and post level one teachers to opportunities for development and growth.

Regarding the readiness of school leadership driving digital and technological transformation, we point out the disparities found in the South African educational field. Numerous research studies echo this notion and further highlight the extensive impact of the pandemic on education, particularly in scenarios of great disparity and the realities of socio-economic inequalities, which are one of the levers which influence the types of devices available and the extent of digital and technological integration. The information conveyed by the respondents confirmed the disparities evident in the South African education system.

9.   RECOMMENDATIONS OF THIS STUDY

We propose that the Department of Basic Education (DBE) explores the use of digital tools such as the Microsoft package for education or Google classroom for public schools, following on from the COVID-19 period which served as the digital and technological training incubator. Although there was no consistency in the tools that schools were able to access, as indicated by the pandemic period, it exposed learners and teachers to a new platform for learning.

Our next recommendation is for the DBE to track the sustainable leadership practices developed by schools at a ground level in the period before the pandemic as well as arising from the COVID-19 pandemic. While context is a vital driving force in this regard, documenting good practice may provide model solutions for school leaders to consider and may furthermore inculcate innovative and adaptive thinking among all stakeholders.

Finally, a pertinent area for further investigation would be to conduct a comparative study of school leadership sustainability in schools that are categorized in the different quintiles one to five, across two or more provinces. We argue that it would be interesting to investigate how financial resourcing impacts adaptive leadership sustainability in a developing country such as South Africa.

10.   CONCLUSION

The fundamental objective of the research study was to explore the perceptions of school leadership regarding the sustainability of leadership practices adopted during the period of forced opportunities for adaptive leadership over the last few years. Adaptive leadership appears to have a significant place in enabling

sustainable leadership practice. This is particularly important when considering the times, we live in, which is characterized by profound disruption known as the VUCA era (Browne, 2020). It is vital for school leaders to lead with intent, purposefully serving school communities, while carefully seeking ways to forge ahead, that is, leading today with tomorrow in sight.

The research reveals that the COVID-19 pandemic has rapidly inculcated skills within many leaders, but there is also evidence of context-bound realities which inhibit the ability of school leadership to make significant and permanent transformations. The findings, taken together, point to the importance of continuous learning. In each case, the tension created by the forced opportunities required school leaders to learn new ways of replacing habitual leadership practices. Lewin's force field analysis is of relevance to this discussion in that it demonstrates the powerful impact of both restraining and driving forces (Burnes, 2004; 2020). Forced opportunities created a tension which necessitated movement (Burnes, 2004; 2020). However, once the friction arising from the COVID-19 pandemic dissolves, respondents naturally shift back to former actions unless the "new" or adaptive practices have become a place of comfort.

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