

Integrating Learners' Performance To Human, Physical And Financial Resources In Schools: Perspective From Public Secondary School Principals

Shapule, EL, Modjadji, PhD¹, Tsebe W, Molotja , PhD²
Mahlapahlapana, J, Themane PhD³

¹ University of Limpopo, Department of Educational Studies, SOVENGA,
South Africa
shapule@gmail.com

² Professor, University of Limpopo, Department of Language Education
School of Education, SOVENGA, South Africa
wilfred.molotja@ul.ac.za

³ Professor, University of Limpopo, Department of Educational Studies,
School of Education, SOVENGA, South Africa
mahlapahlapana.themane@ul.ac.za

Abstract

Though learner performance have been improving over the years, Limpopo Province is still trading at the bottom of the pack with regard to learner performance. This is despite allocation of funds schools annually. The aim of this study was to explore how schools integrate human, physical and financial resources to enhance learner performance. Twenty five secondary school principals were randomly selected from five circuit in Limpopo Province. In this qualitative study, semi-structured interviews and document analysis were used to collect data and data was thematically analysed. This study revealed that it was difficult to integrate human, physical and financial resources to enhance learner performance. Inadequate infrastructure, lack of capacity by the SGB and insufficient LTSM made it difficult for school principal to improve learner performance. It is there important to effectively and efficiently link human, physical and financial resources to improve learner performance in schools.

Keywords: Learner performance, school resources, SGB, management.

Introduction

Successful economy of every nation depends on the level of education of its citizens. So, education remains one of the driving forces towards emancipation of people's livelihood. Besides financial freedom, education is necessary for people to expand their knowledge, their way of living and also social and economic status throughout the life (Sibuyi, 2016). South African education system has evolved over the past twenty five years. The South African government, through the department of Education, continues to transfer resources towards the historically disadvantaged schools throughout the country and if resourcing in schools could improve, it is likely that learner performance can be improved (DBE, 2003). Public schools, including the former Model C schools, are all funded by the government. However, the funding models for these schools differ, depending on the quintile in which the schools are categorized. These quintiles are determined and categorised according to the socio-economic status of the communities surrounding the schools. Quintile 1-3 schools, which are regarded as the most disadvantaged geographically, are not paying fees and quintile 4 and 5 schools' geographical locations are economically advanced (Hall & Giese, 2008). It remains the responsibility or choice of parents to which school they want to send their children, depending on the socioeconomic status of the family. However, parent prefer to send their children to schools where they know that learner performance is high, depending on the availability of sufficient human, physical and financial resources. According to Woessmann (2016), parents prefer to send their children to schools which have detailed educational resources. The case in rural South African schools is that in some communities, parents are compelled to send their children to schools nearer to their homes due to lack of financial resources to transport those children, irrespective of whether the school is performing or not.

Even though the levels of social and economic disparities between rich and poor continue to be noticeable in education (Graven, 2014), all learners are expected to perform. Such performance will be determined by both financial and physical resources in such schools. It is clear that financial and physical resources differ significantly in these schools, and this has impact on learners' performance, particularly in Quintile 1-3. Section 16A of the South African Schools Act (SASA) 84 of 1996 stipulates the roles and responsibilities of the school principal with regards to planning, reporting, accountability and performance of the school while Section 58B identifies underperforming schools. A school is deemed to have underperformed if the percentage of learners who shall have obtained National Senior Certificate is below 65% (DBE, 2012).

The insertion of Section 58B in the South African Schools Act 84 of 1996 as amended (DBE, 2007), stipulates that if the standards performance of learners is below the standards prescribed by the National Curriculum Statement (NCS), the principal and the School Governing Body (SGB) of a

particular school must account on such performance (DBE, 2007) mainly because schools are funded and given necessary support by the district, provincial and national office of education. Learner performance in both primary and secondary school, solely depend on the use of financial, physical and human resources in schools. South Africa has recently seen in high number of children attending schools and this requires adequate funding and also effective and efficient use of such resources. Statistics South Africa's General Household Survey (GHS) of 2018 highlighted that there were approximately 14.2 million learners at school (Statistics South Africa, 2018) which might have slightly risen in 2020. The yard-stick to trace and track learners performance is from Grade 3 (Foundation phase), Grade 6 (Intermediate phase), Grade 9 (Senior phase) and Grade 12 (Further Education and Training) where Grade 12 is the exit point of secondary schooling. Since Grade 12 is the bench-mark or the yard stick of South African education system through acquisition of National Senior Certificate, financial; physical; and human resources, plays a predominant role in advancing learner performance. Generally, Grade 12 performance has been improving nationally over the past five years. However, Limpopo remains the lowest performing province with regard to Grade 12 performance. The question which therefore remains is the extent of integrating these resources to learner performance in that province.

The availability of resources such as Learning and Teaching Support Materials (LTSMs), teachers, maintenance of the school building etc., remains the responsibility of the principals as ex officio; and the School Governing Bodies (SGBs). However, this remains in the hands of principals since SGB members are not always available in schools. In many instances, School Management Teams (SMTs) determine physical resources they require for their respective departments and also assist principals in choosing, procuring and managing LTSMs (Ali & Botha, 2006; Bush & Glover, 2013; Hoadley, Christie & Ward, 2009). Annually, different sub-committees and departments in schools draft budgets for their resources for the next year. These mini budgets are then consolidated to formulate the budget of the school taking consideration the needs of the school. For the vision and mission of schools to be realised, it is important that resources in schools should be effectively managed. It remains the responsibility of schools to manage the resources provided by the government. This paper aims to contribute to available knowledge by providing certain empirical evidence about the importance of managing and integrating human, physical and financial resources to learner performance in schools.

Literature Review

Socio-economic factors and conditions differ from country to the country, and this have an impact on the quality of education. Over the years, education policies have improved learner performance by providing more resources. International organisations like Organisation for Economic Co-operation and Development (OECD) has over the years worked on

structuring improved policies to better people's lives. So, shaping policies that advances prosperity, equality, opportunity and well-being for all individuals has been their core responsibility of OECD (). Structuring such policies, particularly in education, have a bearing on learner performance. Even though systems and resources in school differ, the priority for every government is to invest in schools and its systems in order to improve learner performance (Wei, Clifton & Roberts, 2011).

The average learner performance differs significantly across various countries (Woessmann, 2016), probably due to resources invested in education and disparities in the organization, culture and governance of school structures. This is clearly observed from international assessment bodies such as Trends in International Mathematics and Science Study (TIMSS), Progress in International Reading Literacy Study (PIRLS), which monitor trends in learner performance in reading, mathematics, science from various countries and also Southern African Consortium for Monitoring Educational Quality (SACMEQ). Comparatively, South African learners performs lower than learners from other countries with regard to Mathematics, Physical Sciences and literacy skills such as reading and writing (Mullis, Martin, Foy & Hooper, 2016; Mullis, Martin, Foy & Hooper, 2017). South Africa came last behind Egypt and Morocco in the PIRLS assessment of Grade 4s' reading skills from fifty countries. This PIRLS report highlighted that schools from countries (South Africa, Morocco and Egypt), where resources are insufficient, learners performed poorly compared to schools from affluent countries (e.g. Russian Federation, Singapore and Hong Kong) (Mullis et al, 2017).

Even if South African learners had somewhat improved their performance in 2011 from two SACMEQ studies, they were still not performing well in both reading and mathematics when equated to the SACMEQ average (Moloi & Chetty, 2012). This suggests the severity of inadequate use of resources to advance quality education to learners in South Africa. It was found that the schooling systems in South Africa performs poorly in advancing social equality, suggesting that learners from low SES backgrounds were more disadvantaged than most of the others from SACMEQ countries (Ross and Zuze, 2004). In most cases, the SES may include resources available in households, family background and probably parents' level of education.

As suggested by Hanushek and Woessmann (2017), learners who attend a well-resourced schools might differ along both observable and non-observable dimensions from learners who attend schools which are under resourced. Because of inequalities of education in South Africa, most rural schools are under-resourced. It may be difficult for learners from disadvantaged schools to perform as much as learners from schools which have resources. In a study conducted by

The fact that governments pumps money into education, it is correct that there should be value for money. Some studies have found positive associations of learner performance to the quality of instructional

material, school resources and the quality of the teachers (Iqbal, Hussain, Parveen, & Javaid, 2019; Rao & Lakshmi, 2017). As a result, usage school resource is closely related to questions about the efficiency of schools.

Methodology

This study used qualitative research to explore how schools integrate human, physical and financial resources to enhance learner performance. Qualitative research assist to elicit participants' accounts of meaning, experience or perceptions (Creswell, 2013) and researchers were able to discover how schools manage and link schools resources to learner performance. The sample consisted of twenty-five principals (P1-P25) from five circuit. These principals were randomly selected to participate in this study. Data were collected using documents analysis and semi-structured interviews. These various methods were employed to triangulate the data collected (Cohen, Manion and Morrison, 2013) and to increase trustworthiness (Denzin & Lincoln, 2011). Member check was performed by participants on their recorded interview data to ensure that the captured information correctly reflected their views (Shenton, 2004). The documents analyzed were minute books, record of learner performance, registers (teachers and learners) stock and assets registers, minute books, maintenance plans, budgets and financial statements. The assessment of these documents was done using a checklist (Neuman, 2003). The checklist was used to identify frequency and management of activities in schools. Data emanating from the documents were then corroborated with those from the semi-structured interviews. Semi-structured interviews were conducted after analysis of school documents. Questions were generated based on the issues identified and unearthed from the documents. Semi-structured interviews (Denzin & Lincoln, 2011) were used because they offered the interviewer a chance to ask questions to clarify data from the documents regarding integration of human, physical and financial resources in schools. Interviews were deemed fit for this study because they allowed an in-depth discussion, follow-ups and to probe questions to clarify the responses (Cohen et al., 2013). Data was analysed thematically so that researchers can provide a description of the findings (Alvarez & Urla, 2002). The analysis involved reading and re-reading of transcripts, organising similar and dissimilar ideas for identifying different categories. The analysis process also involved counting the number of instances in which a specific phenomenon occurred in the text (Rubin & Babbie, 2008). Finally, different categories from participants' perception were grouped to form the main themes.

Results

It is of utmost important to indicate the demographic profile of participants. This will be followed by the finding of this study which are hereby presented in themes which emerged. the participants, 32% (n=08) were females whereas 68% (n=17) were males. With regard to years of experience in management, those between 0-5 constituted 12% (n=3), 6-

10 constituted 52% (n=13), 11-15, 24% (06) whereas those with 15 years plus constituted 12 % (n=03). The following Table 1 present the demographic profile of participants.

Table 1: Demographic characteristics of participants (n=25)

	Number	Percentage
Gender		
Male	17	68%
Female	08	32%
Experience in management		
1-5	03	12%
6-10	13	52%
11-15	06	24%
15+	03	12%

Theme 1: Teachers and teacher development

Teachers play a dominant role in insuring that learners perform. It became evident in this study that even if post were occupied, some educators were not competent and confident enough in the subject they were teaching. Evidence, according to these participants was in the previous results of the schools. P6 indicated that, "I do not have any vacant post, all the posts are occupied. My problem is that learners continue to underperform, particularly in Accounting, Maths and Physics. I have no idea why they underperform because these teachers have qualified in these subjects". When asked if necessary support was given to the teachers, P6 said, "Yes, support is given but learners still fail. Myself, together with Departmental Heads constantly support them but there is no improvement. I personally thinks that there might be content gap amongst them".

It became evident that DBE conducts teacher developmental workshops but participants highlighted the limited time at which such development is done. P4 said, "Annually, Curriculum Advisers hold briefing sessions at the beginning of the year to brief educators about expectations, assessment and curriculum reviews. However, such briefings are not enough because content aspect are not explained explicitly. I belief that if such briefings can dwell much on content, learner performance may improve".

P25 shared the same sentiments by saying, "If educators can be workshoped on a quarterly basis on the content that has to be covered in a particular Term, learners would pass. However, our department conduct workshops for few hour and this is not enough. Sometimes educators develop themselves by enrolling with institutions of higher learning to upgrade their qualifications, but this is not enough".

When asked how they recruited their human resources, participants indicated that sometimes it is difficult for them to recruit teachers on their own. The reason being that the department bring teachers who had benefited from government bursary scheme and recently qualified from universities. This becomes difficult for them to recruit on their own. P23 said, *“Every principal needs a competent teacher in his or her school, but it becomes difficult for us to recruit on our own. We are compelled to absorb newly qualified teachers because they have just completed. You should know, in most instances, such educators are not competent in those subjects, hence you see such performance”*.

Comparatively, even if there was a sign of improvement in learner performance in schools which participated in this study, performance in subjects like Mathematics, Accounting, Physical Sciences, Economics and Life Sciences in the FET phase was slow. Generally, Grade 8 and 9 performance was considerably low, particularly in subjects like Mathematics, EMS, Social Sciences and Natural Sciences.

Theme 2: Lack of capacity of SGB members

Principals in this study indicated that it was difficult for them to manage human, physical and financial resources because some of these responsibilities were solely the responsibility of the SGBs. The fact that SGBs involvement was limited, it becomes a heavy burden to carry on principals. Following are some of the comments they said:

P4. *“As a principal, I must make sure that learners pass. However, it becomes difficult for me to manage, curriculum, learners, teachers and school finances. SGBs drags their feet when coming to school maintenance and most of them are not interested in activities of the school”*.

This notion was shared by P16 who said, *“It is difficult work with people who have no expertise to carry their responsibilities. Amongst nine members, only three have educational background. This makes it difficult, for the entire structure of the SGB to function effectively. I do most of the responsibility even those allocated to SGB”*.

Based on participants' responses, it became clear that SGBs lacked capacity and the fact that did not participate actively took centre stage.

P9 responded, *“For learners to perform, all stakeholders must get involved. Teachers, must teach, learners must take learning seriously, parents must take part in the education of their children, but most importantly SGBs must play their role as stipulated in the South African Schools Act. Our SGBs are elected to serve in governance of the school but they are not aware of their responsibility, particularly knowledge in financial management. Even if they come to meetings, some of them do not have any input”*.

From the documents, there were inconsistencies with regards to meeting attendance by SGBs. In some instances only 40% of members attended SGB meetings whereas other schools experiences 70% of attendance. This

was depicted from SGM minutes and attendance registers. Some schools' inventory or stock registers were not updated and incomplete. With regards to financial management, there was evident of financial management because of presence of budgets and audited financial statements.

Theme 3: Poor infrastructure

It became evident in this study that infrastructure, as one of the most important physical resource, is inadequate in schools. Lack of sufficient classrooms which causes overcrowding in schools, coupled with lack of laboratories, libraries, computer labs and poor sanitation, were pointed as some of the factors which affected learner performance. Lack of such important resources have serious implications on learner performance in these schools.

P24 reported that, *"Our classes are overcrowded because of insufficient classrooms. For example, there are 198 learners in Grade 8 and they share two classrooms; which means that 99 learners are sharing a class. This makes it difficult for teaching and learning to take place. But there is nothing we can do about this. Honestly, how can learners perform under such conditions?"*

This sentiment was shared by P18 who said, *"Most classes are overcrowded and teaching and learning is sometimes ineffective. We have twelve classrooms and four mobile classes with 1456 learners, one class has an average of 90 learners. We have been waiting for the department to build classrooms for us but we are still waiting. Our school does not have resources like laboratories or library or computer centre. Instead, we depend on the University for proper practical work in subjects like Physical Sciences and Life Sciences".*

One principal highlighted the conditions of the classrooms by saying, P7 *"I think you can see for yourself. This school is old, the physical condition of classes are very poor, the ceiling are falling apart because of theft and windows are broken because of vandalism. This is what we work with on daily basis".* When asked why they were unable to repair, P7 said, *"We do try to repair but it's not enough. When we repair thieves within the community vandalise again. As a result, even money allocated to repairs and maintenance becomes depleted".*

When asked how they integrate the resources they have to learner performance, participants highlighted the use of Information Communication Technology (ICT) in schools which have positive impact on learner performance. P11 reported that, *"Some teachers in our school are now using ICT equipment like laptops, projectors to teach learners and this becomes interesting to learners. Even if we do not have a computer centre, teachers are able to use these equipments to teach".* Such sentiments were shared by P20 who said, *"Because of the new technology, our school have Wi-Fi, which makes it easier for teachers to*

download materials for learners. They show them videos and animations which makes learners to understand some concepts”.

Theme 4: Availability of textbooks

One of the most important resources in schools are textbooks. It became evident in this study that most learners did not have textbooks for all subjects in schools. This is despite the fact that the Department of Education supplies schools with textbooks are per subject enrolment. Participant indicated that learners lost books and they do not replace them, and this becomes a problem to learners in subsequent years. P3 reported that, *“We do give learners LTSM like textbooks but they do not return all the books. This becomes a problem to learners who come to the same grade the following year”.*

P21 asserted by saying, *“Problem of under-performance will persist if all learners do not have textbooks for all subject. We do get top-ups but still is not enough. We have a problem because parents do not take responsibility for lost books replacement. They always complain that they do not have money, they are not working or they will buy the book. Sometimes we withhold reports, which is illegal of course, in order to force parents to replace a book but we don’t succeed”.* When asked what their retrieval policy say with regard to textbooks, P21 said, *“The policy indicate that textbooks or any LTSM loan to learners must be returned to schools as it remains the property of the school but still, learners do not return the loaned items. They point out that they lost them or other learners stole from them. If you ask parents to replace, in most case they indicate that they do not have money”.*

Retrieval of textbooks was inconsistent. Most books which were distributed to learners were not retrieved or replace by learners. South African School Administrations and Management System (SA-SAMS) data indicated the percentage of books retrieved by schools which did not match the percentage of books distributed to learners.

Theme 5: Culture of the school

Changing the culture of the school became one of the factors which affected learner performance in these schools. Participants indicated that it was important to align the culture of the school to enhance learner performance. P19 indicated that, *“The way we do things here have changed. After having a strategic planning session with SMT members and staff, a lot of things have changed. We have curbed teacher and learner absenteeism and late coming. Also, educators are motivated, they do not drag their feet when they go to class. I belief that this will have an impact on learner performance. One other thing which I belief will turn things around, is the involvement of RCL in the activities of the school, surely our performance will improve”.*

P14 shared by saying, *“I belief that the culture of the school has a bearing on learner performance. Before I came to this school learners were*

performing badly but now performance have improved. I did not change teachers or any structure of the school. I just engaged stakeholders about the importance of working together and knowing our responsibilities. But one other thing that I need to indicate is that, communication is the key". When asked what changed, P14 said, "The culture of the school, how we do things, sticking with policies and cooperation among stakeholders. This are the three main attributes I use to turn things around".

According to these participants, schools leadership, which have an immense power in changing the culture of the school, has impact on learner performance. P5 indicated that, *"A school is its principal. If the principal can bring in culture of commitment, hard-working and commitment, from both teachers and learners, then learners can perform well.*

Discussion

The aim of this study was to explore how human, physical and financial resources impact learner performance in South African rural schools. One of the most important human resources in schools is teachers because they are able to impart knowledge and skills to learners and they also interact them on daily basis. It became evident that schools were well-resourced when coming to teachers because most posts have been filled. However, some schools had a challenge with the filling of promotional posts. The quality and effectiveness of teaching is important for learning (Rockoff, 2004; OECD, 2005) because teachers are the most important resource for learners in schools. Recruiting teachers was sometimes a problem to this group of participants because there were instances where the department send educators who benefited from the government bursary scheme in universities. Participants highlighted that this had a negative impact on performance which may hinder learner performance because most of them lack content knowledge.

The successful management of staff, therefore, is a vital part of the overall management of the institution, particularly in relation to cost-effectiveness. As a result of a greater degree of autonomy being devolved to schools, the responsibility for managing staff has increasingly fallen to the senior management of schools in conjunction with the school governors with whom the legal responsibility rests (Bell,). Teacher development remains a challenge in most rural school. The fact that the department developed teachers through briefing sessions, participant indicated that the briefings were not given sufficient time because in most cases is one day workshop. It becomes a problem for teachers with limited content knowledge on the subjects they are teaching. Professional development ultimately offers the opportunity for teachers to advance in whatever capacity that suits their personal, professional, or career goals (Lopez, 2015).

It is nearly impossible to run schools without finances because resources should always be available. Participants in this study indicated how

difficult it is for them to manage physical and financial resources due to lack of assistance from the SGBs. The challenge of shared responsibility between principals and the SGBs with regard to financial management remains critical in schools because relationship between SGB members and SMTs on managing finances of the school are generally non-existent (Basson & Mestry, 2019). The reason being, most SGB members had limited financial knowledge with regards to budgeting and financial accountability and this becomes difficult for them to collaborate with principals to effectively manage finances. This result in principals being responsible in managing school finance. This is despite stipulations from SASA 84 of 1996 that SGBs are custodians of finances in schools and as such they should manage finances responsibly and also augment such finances (DBE, 2013). This notion was also shared by Heystek (2006) who suggested that many parents elected in the SGBs in public schools have inadequate financial knowledge and skills, and low levels of literacy. This in turn makes it difficult to make sound financial decisions, and to effectively and efficiently manage finances in schools. It is not surprising that learners are performing poorly in most school. This is because of lack of capacity by SGBs as custodians of finances in schools. From their analysis, do Valle and Gomes (2014) have found that financial resources are significant in producing performance to the extent that resource availability increases educational efficiency. Generally, the involvement SGBs in schools was a challenge. Most participants highlighted the fact that some SGBs did not attend meetings and when they do, they do not give any input. This suggest that they did not know the role they should play to advance learner performance in schools. Since the responsibility and accountability on governance and management of schools have been placed on SMT and SGB (Naidoo & Mestry, 2017), it is vital for such structures to ensure that resources are effectively linked to learner performance in schools.

Inadequate infrastructure, which is one of the most important physical resource in schools, had negative impact on learner performance. The notion that classes had an average of sixty five learners, suggest that teaching and learning may not be effective, hence some school performed poorly. According to the regulations relating to minimum uniform norms and standards for public school infrastructure in South Africa, the maximum capacity of learners a classroom can carry is forty (DBE, 2013). Though it was not tested whether reduction of class size improves performance, it was surprising to observe that some schools still had classes with more than seventy learners in one class which may directly have an impact on learner performance. The results of this study are in line with results from Woessmann (2007), who found that in Singapore and Iceland, learner performance was positively related to class size. Also, in a study conducted in Denmark, Nandrup (2014) found that there was significant positive effects of class size reductions public school system. Even though Shen and Konstantopoulos (2017) found that when class size was reduced in Romania learners reading abilities improved, the same

study (Shen & Konstantopoulos, 2017) revealed that there was no significant reading achievement after reduction of class sizes in other European countries. The same applies to Hanushek, 2006; Altinok and Kingdon (2012), whose studies suggested that class sizes did not have a significant influence on learner performance. Even though class sizes may not have an impact on achievement in most European countries, their class sizes may be very small compared to classes in most rural schools in South Africa. Considering that most classes in junior grades (Grades 8 & 9) were overcrowded, it is not surprising that Grade 12 performance is low in Limpopo Province. It is unlikely that content gap from previous grades may be recovered in only one year of study in Grade 12 because of the most important physical resource in schools, i.e. classrooms. The reason being, many attained capabilities in previous grade may very well be complements for accumulating later skills (Nandrup, 2014). It is critically important to create an environment for conducive teaching and learning to improve learner performance.

The predicament of insufficient infrastructure has been shared by the Minister of Basic Education who had previously indicated that available infrastructure is inadequate and inconceivable and this has an underlying impact on learner performance (DBE, 2015). In the schools that participated in this study, only 12% (n=3) had laboratories and libraries whereas 88% (n=22) did not have such resources. It is not surprising that learners in these schools are performing poorly in subjects like Life Sciences and Physical Sciences. In a study conducted in Nigeria for example, it was found that student who engage in hands-on practical activities are more likely to perform better than those without proper laboratory settings (Usman & Sabo, 2018). However, these does not suggest that if the resources such as laboratories can be in place then learner performance may improve.

Even though textbooks dominate teaching and learning in classrooms (Opoku-Amankwa, 2010), it was surprising that in these schools there was shortage of textbooks. The Department of Education supplied schools with textbooks, however, insufficient textbooks for learners was highlighted as one of the reasons for under-performance. In this particular schools, the challenge is their retrieval systems. About 95% of participants indicated that it is somehow difficult to retrieve textbooks because parents are unable to replace lost books because of their socioeconomic status. As central resource for teaching and learning (Remillard, 2005), textbooks enable the expansion of thinking and understanding of a particular subject because they influence instruction (Stylianides, 2009). In a study conducted in Israel, it was found that if a textbook provides the opportunity to engage in tasks demanding higher levels of understanding, learners using that particular book get higher marks (Hadar, 2017) and as such improve learner performance. In a study conducted in Ghana, it was found that availability of textbooks is associated with improved learner performance, particularly in schools in developing countries (Opoku-Amankwa, 2010). It can therefore be

inferred that, as one of the most important physical resource, textbooks had a bearing on learner performance in this particular district. There are policies of retrieval of textbooks in schools, however it is surprising how schools are unable to use such policies to retrieve these crucial physical resources in schools.

There is a link between resources and learner performance which highlights the changing environment in which schools as institution of learning operate. Even though it was observed that ICT resources were limited, it was encouraging to notice that most schools were moving towards the use of technology to advance learner performance. Availability of internet connectivity in these schools suggest that schools are moving towards preparing learners to the increasing demand of technology in the current era. Insufficient ICT Infrastructure is not a problem to South Africa only, even developed countries such as Spain experience insufficient infrastructure to integrate ICT into the classroom (Gil-Flores, Rodríguez-Santero & Torres-Gordillo, 2017). It is therefore important for schools to make ICT resources such as computer labs and computers available for the successful integration of ICT in teaching and learning so that learner performance may improve.

One intriguing aspect came out from this study; the culture of the school. The conception that learner performance improved because of the gradual change in the culture of the school became interesting. According to these participants, effective leadership and organisational structure coupled with discipline of both teacher and learner, were the core in ensuring that the culture of the school enhances learners' performance. Even though Koçyiğit (2017) have suggested that school culture has a medium level effect on learner performance, some studies have concluded that the culture of the school plays a critical role in the success of a school (Adams, Ware, Miskell, & Forsyth, 2016; Louis, 2015). According to Gurr (2015) has suggested that schools which lacked effective leadership and cultures that promote professional development and knowledge sharing performs below average. This was also attributed by Newman (2014) who indicated that school culture is one of the factors linked to learner performance; that culture is dependent on teachers' perceptions of the leadership and culture of the welcoming learning environment. Culture of the schools allows individuals in schools to have a feeling of being valued as an important resource in a learning environment and also assist in promoting a robust instructional school culture and climate. Negative school culture creates an environment of poor performance and also discourages competent work force, and this may ultimately lead to failing learning communities.

Based on the findings of this study, a model was developed. This model suggest that the culture of the school, coupled with sufficient and proper management of human, physical and financial resources, may lead to improved learner performance. However, more research should be conducted to establish the relationship between school resources, school

culture and learner performance in both rural and town school to validate this model. Furthermore, this model should be tested in both performing and non-performing schools.

Figure 1: Factors affecting learner performance



Conclusion

The present study showed that there is a limited link between human, physical and financial resources in schools. This may have implications to learner performance in schools. The fact that the government is funding schools accordingly, academic accountability should be emphasised in all spheres of education, particularly within schools. The issue of integrating human, physical, financial resources and most importantly, the culture of the school, must be taken seriously in order to improve learner performance in schools. School systems and resources are said to be strongly associated with learner performance (Woessmann, 2016). It is against this notion that positive school environment should be the priority for all schools through effective and efficient use of resources in order to enhance learner performance. Considering that schools performed poorly in Limpopo Province, it is likely that such schools may fare poorly in the efficiency with which it translates resources into improved learner performance. This may have implications to learner performance in schools. It is therefore important that schools are effectively and efficiently managed to maximize the use of resources. The school management and the SGBs have a great responsibility to ensure that resources in schools are effectively and efficiently managed to improved learner performance across the grades. This is a small study but certainly gives an indication that integrating school resources and the culture of the school may improve learner performance in schools.

The study had few limitations. Firstly, the sample did not cover all rural secondary schools in all provinces in South Africa as suggested by Gustafsson (2007) who indicated the significant to analyse changes in the performance of different places over time. Secondly, the results could not be directly generalised because of the small scale sample used and composition of schools. Finally, the exclusion of SGBs, SMTs, teachers and parents may subject this study to biasness. This study therefore suggest that future research of this nature should be carried out involving all stakeholders to avoid biasness.

Bibliography

1. Adams, C. M., Ware, J. K., Miskell, R. C., & Forsyth, P. B. (2016). Self-regulatory climate: A positive attribute of public schools. *The Journal of Educational Research*, 109(2), 169–180.
2. Ali, F. & Botha, N. (2006). Evaluating the role, importance and effectiveness of heads of department in contributing to school improvement in public secondary schools in Gauteng. Johannesburg, South Africa: Matthew Goniwe School of Leadership and Governance.
3. Altinok, N., & Kingdon, G. (2012). New evidence on class size effects: A pupil fixed effects approach. *Oxford Bulletin of Economics and Statistics*, 74(2), 203–234.
4. Alvarez, R., & Urla, J. (2002). Tell me a good story: Using narrative analysis to examine information requirements interviews during an ERP implementation. *The DATABASE for Advances in information Systems*, 33(1): 38-52.
5. Basson, P., & Mestry, R. (2019). Collaboration between school management teams and governing bodies in effectively managing public primary school finances. *South African Journal of Education*, 39(2).
6. Botha RJ (ed.) 2012. Financial management and leadership in schools. Cape Town, South Africa: Pearson Education.
7. Cohen, L., Manion, L., & Morrison, K. (2013). *Research methods in education*, 6th edition.
8. Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among the five approaches* (4th ed.). Los Angeles: Sage.
9. DBE. (2013). *Regulations Relating to Minimum Uniform Norms and Standards for Public School Infrastructure*.
10. Denzin, N. K., & Lincoln, Y. S. (2011). The discipline and practice of qualitative research. In N. Denzin and Y. Lincoln (Eds.), *Handbook of qualitative research* (4th ed.). Thousand Oaks, CA: Sage.
11. Gil-Flores, J., Rodríguez-Santero, J., & Torres-Gordillo, J. J. (2017). Factors that explain the use of ICT in secondary-education classrooms: The role of teacher characteristics and school infrastructure. *Computers in Human Behavior*, 68, 441-449.
12. Graven, M. H. (2014). Poverty, inequality and mathematics performance: The case of South Africa's post-apartheid context. *ZDM—International Journal on Mathematics Education*, 46(7), 1039-049.
13. Guimaraes Resende Martins do Valle, A. & Corrêa Gomes, R. (2014), "Analyzing the importance of financial resources for educational effectiveness: The case of Brazil", *International Journal of Productivity and Performance Management*, Vol. 63 No. 1, pp. 4-21. <https://doi.org/10.1108/IJPPM-08-2012-0085>.
14. Gurr, D. (2015). A model of successful school leadership from the international successful school principalship project. *Societies*, 5(1), 136-150.
15. Gustafsson, J.-E. (2007). Understanding causal influences on educational achievement through analysis of differences over time within countries. In T. Loveless (Ed.), *Lessons learned: What international assessments tell us about math achievement* (pp. 37–63). Washington, DC: Brookings Institution Press.

16. Hall, K., & Giese, S. (2008). Addressing quality through school fees and school funding. In S. Pendlebury, L. Lake, & C. Smith (Eds.), *South African child gauge 2008/2009* (pp. 35-40). Cape Town: Children's Institute, UCT.
17. Hanushek E.A., Woessmann L. (2017) School Resources and Student Achievement: A Review of Cross-Country Economic Research. In: Rosén M., Yang Hansen K., Wolff U. (eds) *Cognitive Abilities and Educational Outcomes. Methodology of Educational Measurement and Assessment*. Springer, Cham.
18. Hadar, L. L. (2017). Opportunities to learn: Mathematics textbooks and students' achievements. *Studies in Educational Evaluation*, 55, 153-166.
19. Heystek J 2006. School governing bodies in South Africa: Relationships between principals and parent governors-A question of trust? *Educational Management Administration & Leadership*, 34(4):473–486.
20. Hoadley U, Christie P & Ward CL 2009. Managing to learn: Instructional leadership in South African secondary schools. *School Leadership & Management*, 29(4):373–389.
21. Koçyiğit, M. (2017). The effect of school culture on student achievement. In *The Factors Effecting Student Achievement* (pp. 183-197). Springer, Cham.
22. Iqbal, A., Hussain, S., Parveen, S., & Javaid, Z. (2019). Effect of Teachers' Competencies on Scholars' Academic Achievement and Satisfaction. *European Online Journal of Natural and Social Sciences*, 8(1), pp-9.
23. Lopez, J. (2015). Professional learning communities and school culture: A case of study in district-wide implementation of a PLC (Doctoral dissertation, University of Texas, Rio Grande Valley).
24. Louis, K. (2015). Linking leadership to learning: State, district and local effects. *Educational Leadership in Transition*. Retrieved from <https://www.tandfonline.com/doi/abs/10.3402/nstep.v1.30321>.
25. Mestry, R. (2018). The role of governing bodies in the management of financial resources in South African no-fee public schools. *Educational Management Administration & Leadership*, 46(3), 385-400.
26. Moloi, M. Q., & Chetty, M. (2012). Trends in achievement levels of grade 6 pupils in South Africa. Retrieved on, 12.
27. Mullis, I. V. S., Martin, M. O., Foy, P., & Hooper, M. (2016). TIMSS 2015 International Results in Mathematics. Retrieved from Boston College, TIMSS & PIRLS International Study Center website: <http://timssandpirls.bc.edu/timss2015/international-results/>
28. Mullis, I. V. S., Martin, M. O., Foy, P., & Hooper, M. (2017). PIRLS 2016 International Results in Reading. Retrieved from Boston College, TIMSS & PIRLS International Study Center website: <http://timssandpirls.bc.edu/pirls2016/international-results/>
29. Naidoo, P., & Mestry, R. (2017). The Financial Policy as a Monitoring Tool for Managing Finances in Public Schools. *Journal of Social Sciences*, 52(1-3), 92-104.
30. Neuman, W. L. (2003). *Social research methods: qualitative and quantitative approaches* (4th ed.). Boston: Allyn & Bacon.
31. Newman, S. (2014). Teacher perceptions of leadership styles in distinguished Title I schools and the effect on teacher satisfaction and effort (Doctoral dissertation, Concordia University, Portland, Oregon).

32. Opoku-Amankwa, K. (2010). What happens to textbooks in the classroom? Pupils' access to literacy in an urban primary school in Ghana. *Pedagogy, Culture & Society*, 18(2), 159-172.
33. Rao, R. V., & Lakshmi, G. B. (2017). Stress Management for Teachers. *International Journal of Advance Research, Ideas, and Innovations in Technology*, 3(6), 1490-1493.
34. Remillard, J. T. (2009). Considering what we know about the relationship between teachers and curriculum materials. In J. T. Remillard, B. A. Herbel-Eisenmann, & G. M. Lloyd (Eds.). *Mathematics teachers at work: Connecting curriculum materials and classroom instruction* (pp. 85–92). New York: Routledge.
35. Republic of South Africa 1996. Act No. 84, 1996: South African Schools Act, 1996. *Government Gazette*, 377(17579), November 15.
36. Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22(2): 63-75.
37. Shen, T. & Konstantopoulos, S. (2017). Class size effects on reading achievement in Europe: Evidence from PIRLS. *Studies in Educational Evaluation*, 53, 98-114.
38. Wei, Y., Clifton, R. A., & Roberts, L. W. (2011). School resources and the academic achievement of Canadian students. *Alberta Journal of Educational Research*, 57(4), 460-478.
39. Stylianides, G. J. (2009). Reasoning-and-proving in school mathematics textbooks. *Mathematical Thinking and Learning*, 11(4), 258–288
40. Usman, I. S., & Sabo, M. (2018). Impact of Laboratory Practical Skills on Students' Achievement in Physics in College of Education Azare, Bauchi State, Nigeria. *KIU Journal of Humanities*, 3(2), 205-210.
41. Woessmann, L. (2016). The Importance of School Systems: Evidence from International Differences in Student Achievement. *Journal of Economic Perspectives*, 30(3), 3-32.