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Assessing the Correlation Between School Resource Utilization and Learners' Success in South African Public Education: A Case of Limpopo Province

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Abstract

This research endeavours to assess the correlation between the utilization of school resources and the performance of learners in public schools at the Limpopo Province. Recognizing the pivotal role of school resources in shaping educational outcomes, the study aims to clarify the influence of effective resource utilization on learners' achievement. Employing a quantitative approach, data from a sample of 222 learners in randomly selected South African public schools are analyzed. Various indicators of school resources, including financial allocations, instructional materials, infrastructure, and human resources, are scrutinized in relation to learners' achievement measured by standardized test scores. The findings indicate a significant impact of school resource utilization on learners' achievement. Optimal utilization of resources, such as well-maintained facilities, current instructional materials, and qualified teachers, is positively associated with higher student achievement. Conversely, schools facing resource constraints tend to exhibit lower levels of student performance. Additionally, the study explores potential moderating factors like school size, socio-economic context, and educational policies that may affect the relationship between resource utilization and learners' achievement. Insight into these contextual factors can offer valuable guidance for policymakers and educators seeking to enhance school resource allocation strategies. The study's results contribute to existing literature on school resource utilization and its effects on learners' success, emphasizing the necessity of effective resource management and the equitable distribution of resources in public schools to foster improved educational outcomes.

Keywords: *School Resources; Learners' Achievement; Public Schools; Resource Utilisation; Educational Outcomes*

Introduction

In 1994, the dawn of democracy in South Africa necessitated an immediate overhaul of apartheid-era education. Consequently, an educational provision was integrated into Chapter 2 of the Bill of Rights within the new Constitution of the country (Act 104 of 1996). The transformation of the education sector transitioned from Bantu Education to Outcome-Based Education (OBE), ultimately evolving into the present National Curriculum Statement (NCS). Under the new administration, a fresh legal framework for education emerged, with the National Education Policy Act of 1996 (Act 27 of 1996) and the South African Schools Act of 1996 (commonly known as the Schools Act) serving as principal education laws and policies (Bol, Witschge, Van de Werfhorst, & Dronkers, 2014). Education stands as a foundational element of any society, propelling social and economic development (Fowles, 2014). In South Africa, as in numerous other nations, the quality of education holds a pivotal role in determining the future of citizens and the overall advancement of the nation. Reback, Rockoff, and Schwartz (2014) contend that achieving high levels of learners' achievement is a primary focus for South African policymakers, as it directly influences individual opportunities and the country's competitiveness on a global scale.

The relationship between school resource utilisation and learners' achievement has long been a topic of interest among researchers and policymakers. It is widely recognized that the allocation and effective Utilisation of resources in schools can significantly impact the quality of education and the academic outcomes of students. In South Africa, where there are considerable disparities in resource distribution across schools, examining this relationship becomes even more crucial. South African public schools face various challenges, including limited financial resources, inadequate infrastructure, and a shortage of qualified teachers. These challenges, coupled with socio-economic disparities, further exacerbate the discrepancies in educational opportunities and learners' achievement. Understanding the link between resource allocation and learners' achievement can provide valuable insights into improving educational policies and practices (Molaudzi, Netshidzivhani, & Mamokhere, 2022; Reback, Rockoff, and Schwartz, 2014).

The purpose of this study is to investigate the relationship between school resource utilisation and learners' achievement in South African public schools. The study intends to investigate how various resources, such as financial investment, teachers' quality, instructional materials, and infrastructure, impact learners' achievement by analysing data from a representative sample of schools from different provinces. This research aims to inform evidence-based policy decisions and interventions that can improve educational equity and learning outcomes in South African public schools by shedding light on the factors that influence learners' achievement. Finally, the findings of this study can help to contribute to ongoing efforts to create a more inclusive and effective education system that allows all students to reach their full potential.

Problem Statement

Disparities in resource allocation and utilisation exist in South African public schools, which can have a profound impact on learners' achievement. Despite efforts to improve educational quality, socioeconomic disparities in educational outcomes persist in South Africa. As a result, there is an urgent need to investigate the relationship between school resource utilisation and learners' achievement to identify the factors causing these disparities and devise evidence-based strategies to address them. The issue at hand is twofold. For starters, there is a scarcity of comprehensive research that investigates the specific relationship between resource Utilisation and learners' achievement in South African public schools. While studies have investigated various aspects of education in South Africa, such as resource allocation and academic performance, a comprehensive analysis that considers multiple dimensions of resource utilisation and their impact on learners' achievement is lacking (Molaudzi, Netshidzivhani, &

Mamokhere, 2022). However, Lockheed, Vail, and Fuller (2016) maintain that public schools now have to produce better student results, regardless of whether their resources are rising, declining, or holding steady. Understanding these complex relationships is critical for designing targeted interventions that can improve learner outcomes (Mathevula, & Uwizeyimana, 2014). Secondly, existing disparities in resource allocation across schools exacerbate educational inequity in South Africa. Schools in disadvantaged areas frequently face resource constraints, such as inadequate funding, a shortage of qualified teachers, and limited access to instructional materials and technology (Mathipa, & Mukhari, 2014). These disparities impede students' ability to achieve their academic potential and contribute to the perpetuation of socio-economic inequalities. This study seeks to address these issues by investigating the relationship between school resource utilisation and learners' achievement in South African public schools. Identifying the key drivers and barriers to resource utilisation, as well as their impact on learners' achievement, will help to inform policy decisions and interventions aimed at promoting equitable access to high-quality education for all South African students.

The Purpose of the Study

The purpose of this study is to investigate the relationship between school resource utilisation and learners' achievement in South African public schools. The study is also guided by the following specific objectives which include among others.

- To examine how resource allocation and utilisation affect learners' achievement.
- To investigate the moderating factors, such as socioeconomic status and school context, that influence the relationship between resource utilisation and learners' achievement.
- To provide evidence-based recommendations for improving resource allocation and Utilisation to enhance learners' achievement in South African public schools.

By conducting this study, researchers and policymakers can gain insights into the effective Utilisation of resources and their impact on learners' achievement, which can inform educational policies, resource allocation strategies, and instructional practices in South African public schools. The findings of the study can contribute to enhancing educational outcomes and narrowing the achievement gap among learners in South Africa.

Hypothesis

There is a positive relationship between school resource utilisation and learners' achievement in South African public schools.

Explanation

The hypothesis suggests that the effective Utilisation of school resources, such as educational materials, infrastructure, teaching staff, and other related factors, has a significant impact on learners' achievement in South African public schools. It assumes that when schools effectively allocate and utilise their resources, it leads to improved academic performance among students.

Knowledge Gap

The knowledge gap in this study is lack empirical study and data on school resource utilisation and learners' achievement especially in South Africa. Therefore, this study denotes the need for additional research to address unanswered questions or areas with limited data on. Identifying the knowledge gap helps to justify the study's importance and relevance. The study intends to contribute to the existing literature by filling these gaps and advancing understanding of the relationship between resource

utilisation and learners' achievement in South African public schools by identifying these knowledge gaps.

Conceptual Framework of the Study

The conceptual model tested in this study is presented in Figure 1. The framework indicates that the three levels of teaching and learning resources strategy, namely, material, physical and human resource, which in turn determines the learners 'performance in public schools.

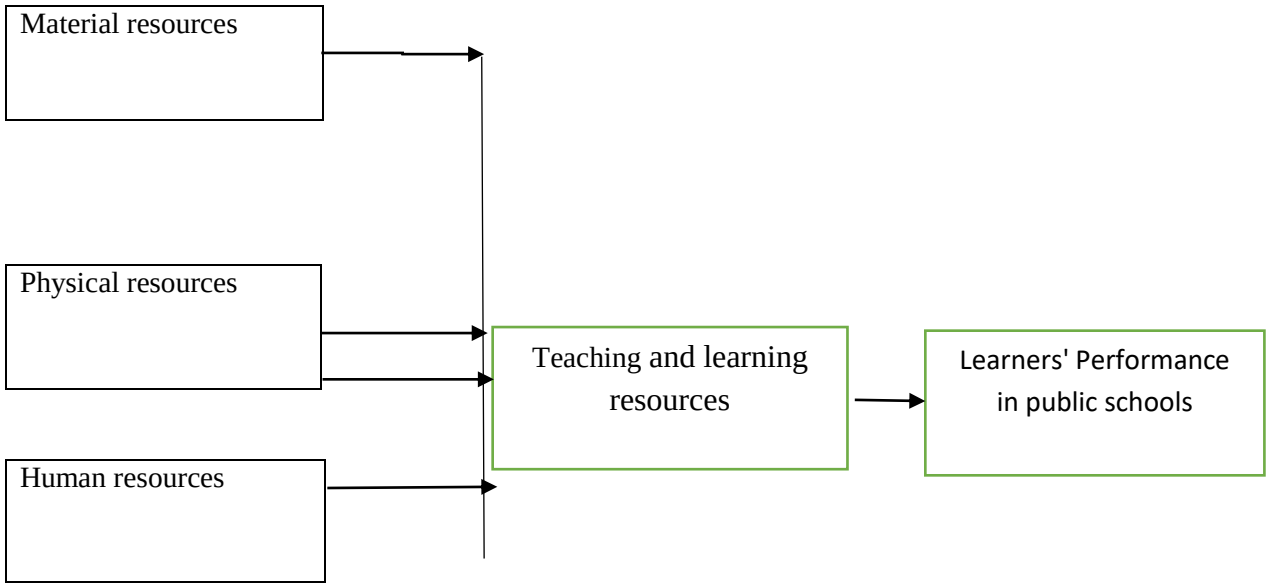

Figure 1: Conceptual Framework
Source: Compiled by authors (2023)

The conceptual framework presented above depicts the impact of teaching and learning resources on the performance of public school learners. The independent variables are adequate teaching and learning materials and physical facilities, while the dependent variable is qualified teachers' ability to influence learning outcomes. Textbooks, teachers' guides, reference books, models, excursions/field trips, charts, calculators, computers, and the Internet are among the teaching and learning materials. Their accessibility enables learners to complete assignments and adequately cover the curriculum, resulting in improved academic results. Desks and chairs, dormitories, dining halls, offices, laboratories, libraries, agriculture rooms, home science rooms, computer rooms, playgrounds, stores, toilets/latrines, and recreational facilities all contribute to the creation of a learning environment. Some of these have an immediate impact on curriculum implementation. A school with adequate physical facilities is more likely to achieve better educational outcomes than one without such facilities. Teachers and other human resources are thus expected to use the teaching-learning materials and physical facilities available to achieve the set goals and improve learning outcomes.

Theoretical and Literature Review

Theoretical Framework

This study is based on several relevant theories. This study's theoretical foundation is provided by human capital theory, social capital theory, and socioeconomic status theory. Using these theoretical frameworks, the study aims to provide a comprehensive understanding of the relationship between school resource utilization and learner achievement in South African public schools. These theories provide different lenses through which to examine the complex dynamics and factors that influence this relationship, considering both internal and external factors influencing resource allocation and utilization.

Human Capital Theory

Human Capital Theory is a theoretical framework that examines the relationship between education and economic outcomes (strober,1990). It posits that individuals acquire knowledge, skills, and abilities through education and training, which in turn enhances their productivity and earning potential in the labor market. Strober (1990) also suggests that investments in education, including school resources and quality teaching, contribute to human capital development and subsequently lead to improved learners' achievement (Strober, 1990). This study focuses on school resources to identify and analyse the various types of resources available in public schools, such as funding, facilities, teaching materials, technology, and qualified teachers. These resources are critical for providing a high-quality education that promotes student learning and achievement.

Social Capital Theory (SCT)

Social Capital Theory, developed by Bourdieu (1984) and further expanded by Putnam (1984), focuses on the significance of social relationships, networks, and community support in influencing individual and collective outcomes. Applying Social Capital Theory to the investigation of the relationship between school resource utilization and learners' achievement in South African public schools can provide valuable insights into the social dynamics and connections that impact educational outcomes.

Socioeconomic Status Theory (SST)

Socioeconomic status theory highlights the influence of socioeconomic factors on learners' achievement (Agnew, Matthews, Bucher, Welcher & Keyes, 2008). It suggests that resource Utilisation may interact with socioeconomic status to impact educational outcomes. (Agnew et al, (2008) emphasizes the need to examine the differential effects of resource utilisation on learners' achievement based on socioeconomic backgrounds. The theoretical framework integrates these theories and concepts to provide a comprehensive understanding of the relationship between school resource utilisation and learners' achievement. (Agnew et al, (2008) helps to guide the research design, data analysis, and interpretation of findings, facilitating a deeper exploration of the factors and mechanisms underlying the relationship between resource utilisation and learners' achievement in South African public schools.

Empirical Review

An empirical review typically entails a systematic search and analysis of previously published empirical studies, research articles, reports, and other relevant sources that have investigated the relationship between school resource Utilisation and learners' achievement in South African public schools. Conduct a thorough search of academic databases such as Google Scholar, ERIC, or Scopus to find relevant empirical studies published in peer-reviewed journals, dissertations, conference papers, and

reports. Use keywords and phrase combinations like "school resource utilisation," "learners' achievement," and "South African public schools."

The Link Between Educational Resources and Learners' Achievement at School

The link between educational resources and learners' achievement at school has been widely studied and acknowledged in educational research (Albert, & Beatty, 2014; Arum, 2015, Molaudzi, 2021). Numerous studies have explored the relationship between the availability, quality, and Utilisation of educational resources and their impact on student achievement. Resources play a crucial role in promoting teaching and learning by providing support, enhancing instructional quality, and creating conducive learning environments (Arum, 2015).

Instructional Materials: Resources such as textbooks, workbooks, digital content, and teaching aids provide essential materials for teachers to design and deliver effective lessons (Le Roux, 2002). These materials help teachers present information, illustrate concepts, and engage students in active learning. Well-designed instructional materials facilitate understanding, stimulate critical thinking, and promote student engagement (Albert & Beatty, 2014).

Technology and Multimedia: Technology resources, including computers, tablets, interactive whiteboards, and educational software, have transformed teaching and learning. Technology can enhance instructional delivery, provide interactive learning experiences, and facilitate access to vast digital resources. Multimedia resources, such as educational videos and simulations, can make complex concepts more accessible and support different learning styles (Tam, 2015; Arum, 2015).

Laboratories and Equipment: Science laboratories, computer labs, and specialized equipment offer hands-on learning experiences and enable students to apply theoretical knowledge. These resources promote inquiry-based learning, experimentation, and the development of practical skills. Access to well-equipped laboratories and appropriate equipment enhances the quality and effectiveness of Science, Technology, Engineering, and Mathematics (STEM) education.

Library and Information Resources: Libraries provide students with access to a wide range of books, reference materials, research databases, and online resources. These resources support independent learning, research skills development, and the cultivation of a reading culture. Libraries also offer spaces for quiet study, collaboration, and exploration, fostering a stimulating learning environment.

Facilities and Infrastructure: Adequate infrastructure, including classrooms, libraries, laboratories, and recreational areas, is essential for creating a conducive learning environment. Well-maintained and comfortable facilities contribute to student well-being, concentration, and engagement. Infrastructure that supports inclusive education, such as ramps, accessible washrooms, and assistive technologies, ensures that all students can fully participate in teaching and learning.

Teacher Professional Development: Resources for teacher professional development, such as workshops, training programs, and mentoring support, are critical in enhancing teaching quality. Continuous learning opportunities enable teachers to acquire new instructional strategies, improve subject knowledge, and stay abreast of educational research and best practices. Effective teacher professional development positively impacts student learning outcomes.

Utilisation of Resources in Education

The utilisation of resources in education can be categorized into three main types: physical resources, financial resources, and human resources.

Physical Resources

Physical resources refer to the tangible assets and facilities available in educational institutions (Atmaja, Zaroni, & Yusuf, 2023). They include classrooms, libraries, laboratories, technology infrastructure, and other learning spaces. The utilisation of physical resources involves:

- Efficient space allocation: Ensuring that classrooms, libraries, and laboratories are effectively utilized by scheduling classes, study periods, and other activities to optimize their use.
- Maintenance and upkeep: Regular maintenance and upkeep of physical facilities to ensure they are safe, functional, and conducive to teaching and learning.
- Equipment and supplies management: Proper management of equipment, teaching aids, and supplies to ensure their availability, functionality, and appropriate use by teachers and students.

Financial Resources

Financial resources refer to the funding and financial assets allocated to educational institutions (Atmaja, Zaroni, & Yusuf, 2023). This includes government funding, tuition fees, grants, donations, and other financial sources. The utilisation of financial resources involves:

- Budget planning and allocation: Developing budgets that align with educational goals and priorities, allocating funds to various resource categories, and ensuring that financial resources are distributed equitably.
- Cost-effective procurement: Efficiently procuring educational materials, equipment, technology, and services, considering quality, cost, and long-term sustainability.
- Financial accountability: Establishing systems and processes to monitor and track financial transactions, ensuring transparency, and responsible use of resources.

Human Resources

Human resources refer to the people involved in education, including teachers, administrators, support staff, and other personnel (Blair & Raver, 2014). The utilisation of human resources involves:

- Teacher assignment and workload management: Assigning teachers to appropriate subjects and grade levels, considering their qualifications and expertise, and ensuring manageable workloads.
- Professional development: Providing opportunities for professional development and training to enhance teaching skills, subject knowledge, and pedagogical approaches.
- Collaboration and teamwork: Encouraging collaboration among teachers, administrators, and support staff to share resources, knowledge, and best practices, fostering a supportive learning environment.
- Recruitment and retention: Attracting and retaining qualified and motivated educators through effective recruitment strategies, competitive compensation packages, and a positive work environment.

Lai (2015) states in general, that optimizing the utilisation of physical, financial, and human resources in education requires careful planning, monitoring, and ongoing assessment. Educational institutions should regularly evaluate the effectiveness and efficiency of resource Utilisation to identify areas for improvement and make informed decisions to enhance teaching and learning outcomes.

Research Design and Methodology

Research Design

The research is based on the positivism paradigm and employs a quantitative research design to investigate the relationship between school resource utilisation and learners' achievement (Ngcobo, Mafini & Okoumba, 2022). This design enables the collection of numerical data that can be statistically analysed to conclude. The study also employed a cross-sectional survey design, with a structured research questionnaire used to collect data from the selected respondents in a single snapshot of time.

Sample Selection

The study's target population included five education districts in Limpopo Province, South Africa. This included principals, teachers, school governing bodies (SGBs), and department heads. The sample was chosen using a combination of clustering and purposive techniques. Schools were organized into clusters based on their districts. Following that, four key professionals with relevant information were selected from each cluster using the purposive sampling technique. Principals, educators, SGBs, and department heads were among the professionals surveyed. Because the field of study was technical and required individuals with the necessary information in each situation, the purposive sampling technique was used (Mouladzi, Netshidzivhani & Mamokhere, 2022). The final sample consisted of 68 public secondary schools selected from 1354 public secondary schools with various profiles, backgrounds, and quintiles (1-to-5) from five (5) districts (Capricorn, Vhembe, Mopani, Sekhukhune, and Waterberg).

Data Collection Procedure

Data on school resources and learners' achievement were collected as part of the study. Methods for gathering data include:

a. **Surveys/Questionnaires**: Data for the main survey were collected via email, with respondents providing the researcher with their email addresses after signing the consent form to participate in the survey. A questionnaire with open and closed-ended questions was developed and distributed to principals, educators, department heads, and SGB members. There were four types of questionnaires: those for principals, educators, department heads, and school governing body members. The questionnaires included a section that requested basic demographic information such as the respondent's gender, length of service, and qualifications, as well as demographic characteristics of their school, such as school enrolment and resource allocation. After screening the questionnaires, 222 (82 percent) usable questionnaires were retained from a total of 271 questionnaires emailed to respondents. Schools were polled to gather information on resource availability, Utilisation, and management practices. The survey also included questions about the availability of textbooks, teaching materials, technology, infrastructure conditions, and teacher qualifications.
b. **Academic Records**: Student achievement records, such as test scores or examination results, were collected from schools to measure learners' achievement. This data was obtained from existing school records.

Ethical Implication: The study was carried out after the Central Research Ethics Committee at the University of Pretoria granted permission to collect data. Respondents were informed that their participation in the study was entirely voluntary and that they could withdraw at any time without consequence. Respondents remained anonymous, and their confidentiality was maintained by not revealing their identities anywhere in the study. Respondents received no monetary compensation for taking part in the study.

Limitations of the Study: The study acknowledged potential limitations such as sampling biases, self-reporting biases, or the inability to establish causation due to the correlational nature of the research design. Furthermore, the study focused on predictors of learner achievement and school resource provisioning in ordinary public secondary schools, excluding primary, special, and independent schools.

Validity and Reliability

To determine face validity, the questionnaire was reviewed by two University Statisticians who are experts in the field. The feedback from the two panels was used to modify the questionnaire to establish face validity. To establish content validity, a pilot study with a conveniently selected sample of 30 respondents was conducted. The feedback from the pilot sample was used to make additional changes to the questionnaire. The pilot sample was excluded from the main survey. The construct validity was determined using Pearson's correlations. Positive correlations between the constructs were found in the correlation analysis results, indicating acceptable construct validity (Roberts and Priest, 2006; Rourke and Anderson, 2004). To test the predictive validity, regression analysis was used. The results of the regression analysis revealed statistically significant relationships between the constructs, indicating that the scales have sufficient predictive validity. To assess reliability, the Cronbach alpha coefficient was used. All measurement scales had alpha values greater than the recommended threshold of 0.7, indicating that the study's reliability was satisfactory.

Data Presentation and Analysis

The information gathered was entered into an Excel spreadsheet. Once the data was gathered, statistical analysis techniques were used to investigate the relationship between school resource Utilisation and learners' achievement. Any inconsistencies, missing values, or outliers were removed from the data. Ascertain that the data is in an analysis-ready format. Data was imported into IBM SPSS version 29 and analysed using descriptive statistics, correlation, and regression to investigate the relationship between school resource utilisation and learners' achievement.

Scale Descriptive Statistics

Table 1 displays the descriptive statistics for the research constructs, including mean scores, standard deviations, and data normality measures. The mean values were intended to assess construct levels in Limpopo province public schools.

Table 1: Descriptive statistics of research constructs

Dimension description	Sample size (n)	Mean Statistic	Std. Deviation Statistic	Skewness		Kurtosis	
				Statistic	Std. Error	Statistic	Std. Error
Physical resource	166	20.83	4.345	-1.167	.188	1.219	0.375
Financial resource	166	10.92	3.013	.124	.188	-1.016	0.375
Human resource	166	18.55	9.492	.415	.188	-.279	0.375
Learners' achievement	166	43,32	12,482	.794	.190	-.042	.377
Scale 1=Strongly disagree; 2= disagree; 3= Neutral; 4= Agree; 5= Strongly agree							

Table 1 shows that respondents agreed with the items on the Lickert scale, with a mean score ranging from 10.92 to 43.32. As a result, respondents were generally pleased with the level of physical, financial, human resource, and learners' achievement. Skewness and Kurtosis statistics were within the

expected ranges (-2 to +2) for Skewness and (-3 to +3) for Kurtosis (Ngcobo, Mafini, & Okoumba, 2022; Mardia, 1974), indicating that the data were normally distributed.

Scale Accuracy Assessment

The study's hypothesis is tested using structural equation modeling (SEM). SEM is a method for determining the direct or indirect causal relationships between research constructs (Kelloway,1995). Two phases are used when using the SEM technique. The first step is to test for scale accuracy, followed by a path analysis test of the hypothesis. In testing for scale accuracy, this study considered two critical parameters: validity and reliability. Table 2 shows the results of the scale accuracy assessment.

Correlation Analysis

In this study, Pearson correlations were used to test the strength and direction of relationships between the research constructs. According to Table 2, not all research variables have significant positive correlations. The strongest positive correlation (r = 0.639; p <0.001) was found between FR and LA, while the lowest correlation was found between PR and LA (r = -0.048; p =0.542) and between HR and LA had the weakest correlation (r = -0.074; p = 0.346). The results show that there is a significant difference between FR and LA, but not between PR and LA or HR and LA. This means that if one of these constructs increases or decreases, the others will follow suit. This means that changing one construct influences the others, either positively or negatively.

Table 2: Correlation analysis of the variables

		Physical resource (PR)	Financial resource (FR)	Human resources (HR)	Learners achievement (LA)
Physical resource (PR)	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	166			
Financial resource (FR)	Pearson Correlation	0,047	1		
	Sig. (2-tailed)	0,547			
	N	166	166		
Human resources (HR)	Pearson Correlation	-0,083	,163*	1	
	Sig. (2-tailed)	0,285	0,036		
	N	166	166	166	
Learners' achievement (LA)	Pearson Correlation	-0,048	,639**	-0,074	1
	Sig. (2-tailed)	0,542	<,001	0,346	
	N	164	164	164	64

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Regression Analysis

Tolerance and the Variance Inflation Factor (VIF), which are both considered measures of the impact of collinearity amongst the constructs in a regression model, were evaluated in the current study, and should ideally be Tolerance > 0.1 and VIF 10 (O'Brien, 2017:673). All independent variable values

were within recommended limits, indicating that multicollinearity was not a serious threat. The first multiple regression analysis investigated whether PR, FR, HR, and LA were predictors of attitudes toward lean culture.

Table 3: Regression analysis of learners' achievement

					Collinearity Statistics	
	Adjusted R	**Beta (β)**	**t**	**p-level**	**Tolerance**	**VIF**
(Constant)	0.447	0	5,028	<,001		
Physical resource (PR)		-0,093	-1,576	0,117	0,989	1,011
Financial resource (FR)		0,672	11,271	<,001	0,972	1,028
Human resources (HR)		-0,187	-3,131	0,002	0,967	1,034

$R = 0.669$; $R^2 = 0.447$; $F = 43.162$; Mean square= 3786.160; standard deviation = 12.482; n=166; $p<0.001$.

PR (Tol = 0.989, VIF = 1.011), FR (Tol = 0.972, VIF = 1.028), and PR (Tol = 0.967, VIF = 1.034) were all significant predictors of learners' achievement, as shown in Table 3. The three variables of learners' achievement (PR, FR, and HR) served as predictor variables (independent variable). The prediction model included learners' achievement as a dependent variable. Investigating the relationship between resource Utilisation and learners' achievement. The regression analysis revealed an R^2 of 0.447, indicating that resource adoption and Utilisation at the high school in Limpopo province account for nearly 45% of the variation in learners' achievement.

Discussion of Study Findings

The findings of a study on the relationship between school resource utilisation and learners' achievement in South African public schools provide useful information on the subject. To achieve this purpose, three hypotheses were put forward. The first hypothesis (H1) proposed that there is no link between physical resources and student achievement ($r = -0.048$; $p> 0.01$). Moreover, in the regression analysis, a physical resource was also not statistically significant in predicting learners' achievement ($\beta = -0.266$; $t= -1.576$; $p=0.117> 0.01$). The second hypothesis (H2) indicated that there is a positive relationship between financial resources and learners' achievement. This hypothesis was supported by a positive correlation observed between financial resources and learners' achievement ($r = 0.639$; $p < 0.01$). Also, analysis of the regression model shows that financial resource was statistically significant in learners' achievement ($\beta=2.798$; $t= 11.271$; $p<0.001$). The third hypothesis (H3) stated that there is a negative relationship between physical resources and learners' achievement. This hypothesis was supported because there was a weak negative correlation that existed between human resources and learners' achievement ($r= -0.074$; $p> 0.01$). Regression analysis indicates that human resource problems were statistically significant in predicting learners' achievement ($\beta =-0.245$; $t=-3.131$; $p=0.002$). The findings of the study provide important insights into the factors that contribute to student performance and have significant implications for educational policies and practices. The study employed a quantitative research design and collected data from a representative sample of public schools in South Africa. Various school resources such as textbooks, teaching materials, teacher qualifications, and infrastructure were measured and their relationship with learners' achievement was analysed using statistical techniques. The results of the study revealed several key findings. Firstly, there was a positive relationship between the availability and utilisation of school resources and learners' achievement. Schools that had better access to resources and effectively utilized them tended to have higher student achievement levels. This finding

underscores the importance of resource allocation and management in promoting better educational outcomes (Molaudzi, Netshidzivhani, Mamokhere, 2022). Secondly, the study found significant disparities in resource allocation across schools in South Africa (Cobb-Clark, & Jha, 2016; Molaudzi, Netshidzivhani, Mamokhere, 2022). Schools in disadvantaged areas often had limited access to resources, including textbooks, qualified teachers, and adequate infrastructure. These resource disparities contribute to the achievement gap between students from different socio-economic backgrounds, perpetuating educational inequality (Cobb-Clark, & Jha, 2016). Additionally, the study identified teacher qualifications as a crucial factor influencing learners' achievement. Schools with a higher percentage of qualified teachers tended to have better student performance. Cobb-Clark, & Jha, (2016) emphasizes the importance of investing in teacher training and professional development programs to enhance teaching quality and student outcomes.

Conclusion and Recommendations

Based on the study's findings, several recommendations are proposed to enhance the education system. First, there should be a concerted effort to ensure a fair distribution of resources among schools, particularly those in disadvantaged areas, prioritizing the provision of textbooks, teaching materials, technology, and infrastructure to create an inclusive and conducive learning environment. Schools are advised to implement effective resource management practices, such as proper infrastructure maintenance, regular inventory checks, and strategic planning to align resources with educational goals. Investing in comprehensive teacher training programs and continuous professional development opportunities is crucial, with a focus on enhancing teacher qualifications and pedagogical skills, especially in schools in disadvantaged areas. The establishment of a robust monitoring and evaluation system at both school and policy levels is recommended, conducting regular assessments to measure resource utilization and its impact on learners' achievement, thereby enabling evidence-based decision-making and targeted interventions. Lastly, the study advocates for educational policy reforms in South Africa, emphasizing the need to address resource disparities, improve allocation mechanisms, and promote accountability in resource management. Additionally, policy initiatives should aim to attract and retain qualified teachers in underserved areas. In conclusion, the study provides empirical evidence supporting the positive relationship between school resource Utilisation and learners' achievement in South African public schools. The findings highlight the need for equitable resource allocation and effective utilisation to address educational disparities and improve student outcomes. Additionally, the study underscores the significance of teacher qualifications in promoting learners' achievement.

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