

Learning Infrastructure and Delivery of Education: A Case of Zambia's Private Teachers' Training Colleges

Lewis Bwalya Chilufya, Rosemary Muma Mulenga, Allen Ngoma

Religious Studies Education, Kwame Nkrumah University

Abstract: This article is based on a study that investigated the impact of infrastructure on the delivery of quality education in teachers training colleges in Zambia, particularly Lusaka district. The study had been guided by three objectives: (i) to investigate the state of infrastructure in selected private teacher training colleges in Lusaka, (ii) to identify the sources of funding for infrastructure development in selected private colleges in Lusaka, and (iii) to assess the extent to which the infrastructure of private teaching colleges influences quality academic environment. Largely, the study sought to ascertain whether the state of infrastructure and the learning environment in private teacher training colleges is supporting the provision of quality education. The study design which was used was Convergent Parallel Design (CPD) which led to collection and analysis of both quantitative and qualitative data. On the basis of the collected data, reviewed literature, and their analysis, this article has established that the state of private teachers training Colleges in Lusaka is not good, which entails that quality service delivery has been compromised. It thus recommended that Government should introduce a policy where private Colleges pay less tax on imported materials that are meant to improve on the learning infrastructure and standards in the country.

Keywords: Infrastructure, Private, Teacher Training Colleges, Funding, Quality Education

I. INTRODUCTION

The education sector in Zambia has recorded phenomenal growth since its liberalization in 1992 (Ministry of Education, 2000). The liberalization of the economy and other sectors, such as education, was in line with the new political, economic and social dispensation ushered in with the re-introduction of multi-party democracy in 1991. Notwithstanding, one of the major changes that came out of liberalization in the educational sector included the establishment of private primary and secondary schools as well as private teacher training colleges and universities. As of 2018, Zambia already had a total of one hundred and six private colleges and universities affiliated to the Teaching Council of Zambia (TCZ, 2018), and that number has since grown exponentially. Their numbers are far much more than the public universities and colleges that offer training for teachers in the country.

This article focuses on the effects of private teacher training colleges' infrastructure development on the quality of education. In this respect, it brings under spotlight the

prevailing legal framework with regard to the higher education systems in Zambia, and examines the state of infrastructure in the country's private teachers' colleges. To this end, it is informed by an earlier research which was conducted in selected private teacher training colleges in Lusaka district of Zambia whose overarching purpose was to investigate the impact of infrastructure or lack of it in the delivery of quality education among trainee teachers in private teacher training colleges. This underlying study had sought to ascertain whether the state of infrastructure and the learning environment in private teacher training colleges supported the provision of quality education. As such, the study was premised on the view that quality infrastructure of learning institutions facilitates better instruction and improves students' performance.

II. THE LEGAL FRAMEWORK OF THE HIGHER EDUCATION SYSTEM IN ZAMBIA

The higher education system in Zambia is guided by legislative Acts of Parliament, national policy documents, and specific institutional strategic plans. Generally, the Higher Education Act of 2013 lays down some of the benchmarks each higher learning institution ought to adhere to. Furthermore, the same Act of 2013, under section 17, stipulates what private higher learning institutions should do in order to promote quality education delivery. Among the measures they are required to take include having an operational plan, proposed education level or course of study and the premises where the private higher education institution is to operate in Zambia, including the facilities and resources. This Act clearly states that private universities should have facilities and resources that promote learning. The infrastructure of higher learning institutions included, *inter alia*, well-equipped lecture theatres, modern laboratories for science or engineering related courses, tutorial rooms, hostels, sanitation facilities, open fields for recreation, well-stocked libraries and Information Communication Technology (ICT) centres. In this light, quality education thus focuses on the whole person—"the social, emotional, mental, physical, and cognitive development of each student regardless of gender, race, ethnicity, socioeconomic status, or geographic location. It prepares the child for life, not just for testing" (<https://palnetwork.org>).

However, despite setting out standards that higher learning institutions should meet, there have been concerns over poor service delivery. For instance, in May 2018, the Teaching Council of Zambia closed ten educational colleges on the Copperbelt province of the country for failing to meet standards and for not being licensed to practice (Daily Mail, 2018). The standards which were aggregated in this respect included those set out by the Higher Education Act of 2013 such as adequate lecture theatres, health centre, sanitation facilities and well-stocked libraries. These closures, in any case, seemed to indicate that the growth of the educational sector had brought with it challenges particularly in adherence to the set standards by the institutions offering teacher training programmes. It is against this background that this study was conducted in order to establish a deeper understanding on the effects of infrastructure with regard to delivery of effective education in selected teacher training colleges of education in Lusaka.

III. THEORETICAL PERSPECTIVE ON INFRASTRUCTURE IN PRIVATE TEACHER COLLEGES IN ZAMBIA

From the outset, it must be stated that there is limited literature on the state of private teachers' colleges in Zambia. Most of the articles that address this subject predominantly contain extracts from the media whose authenticity might compromise the scholarly analysis of the study. However, Government reports, through the media, has been a valuable resource in analysing the state of private teachers' colleges in Zambia.

Mudenda (2016), in the Zambia Daily Mail newspaper, published an article with special focus on the equality of education in which he noted the need to provide education in a clean environment. He stated that young people's right to education is promoted through hygienic environment, well-built infrastructure (which includes toilets, bathrooms), internet for research purpose, well-stocked libraries as well as well-maintained hostels and common rooms that have pay Television connections. He further contended that all these facilities would help to generate a ranking position for institutions. He concluded that while most colleges may appear to be safe, appearances can be deceiving; various measures should thus be taken or put in place to have conducive conditions for both intellectual and physical development of learners.

Similarly, in his motivation theory, Herzberg (2007) had argued that creation of optimal motivation occurs not just when hygiene conditions are in place. His theory was based on two factors, namely, hygiene and motivation. He used the term "hygiene" to describe factors that cause dissatisfaction in a work place or college, organization, quality of leadership, working conditions and the environment itself. The motivation factor, on the other hand, focused on work itself, responsibility and achievement. According to Herzberg, these two factors can make a person to work harder. As such,

Herzberg theory is in line with the effect of infrastructure on delivery of quality education.

Arguably, it would be difficult to motivate students to learn when the environment they are in lacks proper infrastructure that support learning. For one to achieve quality education, he or she needs to be motivated by the infrastructure at college. However, when hygiene factors are missing or inadequate, this state of affairs can cause serious dissatisfaction leading to poorly developed graduates and lowly paid lecturers since colleges would not manage to attract many students. Hygiene factors are all about making the student secure, comfortable, happy at college and there necessary in driving the learning morale of students.

The Times of Zambia (2018), a government-owned print media, asserted that parents who want to see their children excel in their academic life, their number one concern when considering which university or college their child should attend is quality education. It further stated that parents are fully aware that campus life is a very important factor for many of those who make it to these higher learning institutions. Similarly, OSISA Zambia (2013:29) is reported to have asserted that "the quality of education delivery is quite poor, for many of the institutions that are in a state of disrepair, with broken down workshops and laboratories, the quality of teachers entering these institutions is highly questionable as the quality of service tend to be compromised as far as academic performance is concerned due to lack of adequate teaching and learning aids".

However, even if academic activities and supporting environment in a college are of high standards, there is still need to provide certain infrastructure that is supposed to support the full growth of the learners. An ideal college should have facilities in place for learners to exercise both their bodies and their minds. Those that can enhance the student's well-being include indoor sports courts, outdoor sport courts, outdoor sports pitches, athletic tracks, swimming pools and gyms, among others. Dudek (2000) explains that school infrastructure includes classrooms, laboratories, halls, open fields, games equipment, dormitories and sanitation facilities. Furthermore, other studies, like the one that was done in Haiti by Errol, Helen, Lawrence and Clara (2006), revealed that it is crucially important to have infrastructure that support the needs of students with special learning disabilities.

The inclusion of students with special needs in mainstream education has been a major cause of concern for many governments around the world. It is a national and international development matter that is supported in national legislation and in statements and reports that have been issued by international bodies such as the United Nations and Council of Europe (Ochiko, 2020).

Some studies have indeed indicated that the co-curricular infrastructure also plays a significant role in the learning process in colleges. The co-curricular infrastructure

includes fields, music rooms, theatre rooms, among others. They enable students to participate in different activities which help them to develop physically, socially mentally and emotionally (Smith, 1997). The location and availability of adequate playing fields and necessary equipment are also necessary for talent development. As such, Duke (2000) has argued that co-curricular infrastructure should be well-located and well-structured for nurturing talents in students.

Stephens and Schaben (2002) contended that modern approaches to education emphasize holistic development of the students. It is believed that unless balancing both the curricular and co-curricular activities is done, the very purpose of education would be left unrealized. Studies have further demonstrated that extracurricular activities that are well-organized and supported by the management of learning institutions do promote academic performance in students. In the perception of Marlon and Booth (2007), the goal of infrastructure in education is to increase school attendance of students, enhance staff motivation and improve academic achievements of students.

A student, at one point or the other during their college educational journey, would also likely require the attention of a medical professional. As such, well-constructed campuses also have medical centres with well-qualified doctors and nurses, besides other supporting staff. Matters of safety and security, too, require proper infrastructure within the campus.

Kress (2003) observes that technology also changes what students do in the classroom and therefore the need to re-adjust the education to equip colleges and Universities with necessary technological apparatus to promote e-learning. In contrast to the times when students had to go to a library to look up information in dusty reference books, today's students can access almost any type of needed information instantaneously at any time using the internet and other information communication technologies (ICT). As such Kress argues for the modernization of education by equipping it with necessary technologies.

It, therefore, follows that effective teaching can only take place where there is adequate and appropriate infrastructure. This is because infrastructure has a strong influence in the teaching and learning processes. According to Crampton (2009), expansion and success of education relies on infrastructure which affects the quality of the learning environment and students' achievement.

IV. FINDINGS ON THE STATE OF INFRASTRUCTURE IN THE PRIVATE COLLEGES IN LUSAKA

Through reliance on a Convergent Parallel Design (CPD), an understanding of the state of infrastructure in private colleges of Zambia was established to inform this article. It involved collecting, analysing and interpreting two independent strands of quantitative and qualitative data at the same time in a single phase. In this vein quantitative data was collected from the respondents in the selected teacher training colleges, located

in Lusaka, by means of using structured questionnaires that gave numerical findings. The target population contained the District Education Board Secretaries (DEBS), lecturers, educational planning officers, students, college management officials from each institution and officials from the Teaching Council of Zambia (TCZ) who were responsible for the accreditation of colleges.

The data collection phase was guided by three research questions which are as follows:

- i. What is the state of infrastructure in selected private teacher training Colleges in Lusaka?
- ii. What are the sources of funding for infrastructure in private teacher training Colleges in Lusaka?
- iii. How does the infrastructure of private teaching colleges influence a quality academic climate?

College management officers and Teaching Council inspector revealed that the state of infrastructure in some colleges of education was good. Some of the college management officers stated that their colleges had the right infrastructure to support learning. Some others revealed that their colleges were still in infancy as most of the necessary infrastructure was still being put in place, further expressing optimism that the institutions would soon improve following the constant visits made by TCZ and the robust investment reportedly rolled out.

The Teaching Council Inspectors also submitted that in some colleges there was visible development as far as school infrastructure was concerned. One Inspector submitted the following:

In most colleges we have accredited as a council the infrastructure is good. The challenge is that the council only accredits colleges of education but registration is done by PACRA this is what the act provides. We are currently reviewing the Teaching Council Act, we are hoping that we can be given the powers to register colleges of education. I must also mention that you have heard on the news that we closed some of the colleges of education due to poor infrastructure and failure to adhere to other prescribed standards (In-depth Interview, 2019).

The students who were asked on the state of infrastructure in colleges gave out mixed reactions as seen in Figure 1.

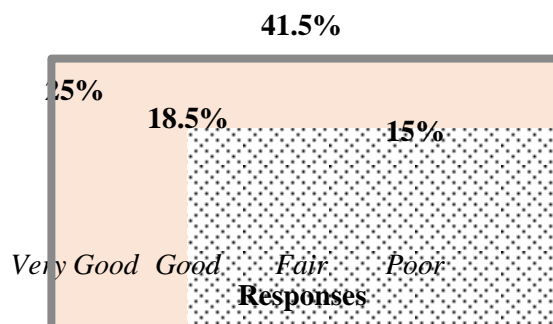


Figure 4: Percentage distribution of the information from students

The findings above indicated that 41.5 percent of respondents felt that infrastructure of colleges was fair, followed by 25 percent of the participants who thought that their colleges had “very good” infrastructure while 18.5 percent felt that the infrastructure was “good”. Fifteen percent indicated that the state of infrastructure of their colleges was “very poor”.

Respondents who stated that their colleges were not in a good state cited lack qualified lecturers who could deliver to the expectation of students. Still other participants submitted that in terms of infrastructure, their colleges did not have all the necessary structures to support learning. They mentioned lack of facilities for special education students which, according to them, were discriminatory to students living with disabilities. The study further revealed that the state of infrastructure in some private colleges of education was good especially those colleges accredited by the Teaching Council of Zambia.

However, the legal aspect in terms of registration of private colleges, has proved to be a drawback on the part of the TCZ as the institution is unable to make sure that the colleges are inspected from the time they are set up to see whether the infrastructure is good enough to start enrolling the students. Currently, TCZ only accredits colleges of education but registration is done by PACRA, the Registrar of Companies and Societies. This means that TCZ cannot ensure that colleges meet the basic minimums before registration is done, unlike now when they come in after registration to inspect.

It is worth noting that at the time this study was being conducted, the Teaching Council Act was being reviewed so that the Council could be given powers to register colleges of education. However, it was undoubtedly clear that if TCZ had the mandate to register institutions of higher learning it would be enabled to make sure that the colleges have the infrastructure before they started to enrol in order not to inconvenience learners with closure of institutions due to poor infrastructure and failure to adhere to other prescribed standards.

The sources of funding for infrastructure development in teachers’ private training colleges came from different sources. Tuition was the biggest source of funding with 45 percent representation followed by the bank loans which accounted for 33 percent while shareholders and donors stood at 11 percent. This data was presented by college management officials.

As for the impact of infrastructure on learning and teaching in private teachers’ colleges, the college management officers and the Teaching Council inspectors were asked on this matter. Three themes emerged from their responses, namely, motivation, easy delivery of concepts and attraction to more students.

It was noted by these officials that the availability of infrastructure is cardinal for proper delivery of lessons in

institutions of higher learning. One Teaching Council inspector submitted to this effect:

As a council our main aim is to maintain standards in colleges and schools because we want colleges to produce fully baked graduates. Hence, good infrastructure enables effective delivery of concepts to student teachers who will in turn become good teachers (In-depth Interview, 2021).

College management officers further revealed that a college with good infrastructure markets itself to would-be clients. One notable submission in this respect read as follows:

Good infrastructure is essential for imparting knowledge and skills in trainee teachers. For instance, since the college has a computer laboratory, students are able to have hands on experience and as a result this attracts students to enrol in our colleges (In-depth Interview, 2021).

It was also noted by one of the college management officials that private colleges strive to have good infrastructure, which also in their view acts as an ‘advert’ to the would-be students.

For us as a private institution we market our colleges using our infrastructure. Students are attracted on how big and attractive the college looks like. That is why if we had funds, we would ensure that all the facilities are made available to the students (In-depth Interview, 2021).

This view was echoed severally by respondents.

Just as the previous studies have indicated, even this study found that good infrastructure acts as a motivating factor not only to students but also to lecturers. Additionally, the study showed that good infrastructure makes learners and lecturers feel motivated in the sense that they find all what they need within the college premises and that enables them to work hard.

V. DISCUSSION AND RECOMMENDATIONS

The study established that the state of private teacher training colleges in Lusaka was not good, which entails that quality service delivery was compromised. In terms of funding for infrastructure development in private colleges, the study revealed that the major sources of income came from tuition fees as well as bank loans. Basically, however, the findings showed that budgets of these colleges were not adequate to support infrastructure development. As such, it became plausible to argue that the lack of budget funds for the development of education requires a search for other sources of funding for infrastructure facilities in education. It is important, therefore, that private colleges of education follow this model by partnering with the business community who can fund infrastructure development in order to improve learning.

The study further revealed that despite the problem of lack of infrastructure such as student dormitories, computer labs, libraries, lecture theatres and other necessities, private colleges of education in Lusaka have continued to provide training to teachers as they are able to rent nearby facilities to use them for specific subject areas where they are lacking. It was found that most of the private teacher training colleges have limited infrastructure in the form of laboratories, adequate number of computers, hostels and other facilities that support learning. Furthermore, lecturers were compelled to use the locally available materials to ensure the effective delivery of concepts to students.

The study also established that there was a causal link between infrastructure of private teaching colleges and quality academic climate. In a similar context, Teixeira, Amiroso and Gresham (2017) had undertaken a research in the UK and found that environmental and design elements of school infrastructure together explained 16 percent of variation in primary students' academic progress. This research showed that the design of educational infrastructure affected learning through three interrelated factors: naturalness (for instance, light, air quality), stimulation (e.g. complexity, colour), and individualisation (e.g. flexibility of the learning space). Bray, Clarke, and Stephens (2002) had earlier concluded that quality education is fruitful when there is adequate quantity and quality of physical infrastructure; and that unattractive school buildings, crowded classrooms, non-availability of playing ground and surroundings that have no aesthetic beauty can contribute to poor academic performance.

The study also observed that lack of adequate infrastructure demoralizes students and lecturers and hinders the colleges from effective delivery of concepts. Moreover, the lack of adequate facilities is among the probable causes of student's poor performance in examinations. Besides, it acts as a barrier for future enrolments in colleges as good infrastructure act as a marketing tool for private colleges of education. This is notwithstanding the fact that there is limited scholarly literature on private teacher training colleges in Zambia regarding the association between infrastructure and students' performance.

Thus, the findings of the study upon which this article is based may propel colleges to devise deliberate strategies on how to deliver knowledge and skills to learners in private colleges of education where they are forced to hire facilities to enable them to teach certain skills. This would entail that the owners of private teacher training colleges ought to improve the infrastructure to enable them produce fully baked graduate teachers because as the study revealed there were serious concerns about the poor state of infrastructure in the private teacher training colleges that were surveyed in Lusaka.

Having discussed the findings of the study and comparing them with the already existing literature, it comes to the fore that there is need for private teachers training colleges need to devise deliberate strategies on how to deliver

knowledge and skills to learners, given the poor state of their infrastructure. As observed, this is inevitable because there is a correlation between infrastructure in these colleges and the quality of academic climate, a claim which has also been supported by other scholars. It is thus our proposal that private colleges get around this issue by devising partnership models with corporate entities to create and bolster working relationship with them. They need to find ways to incentivize the corporate world to support development of quality learning infrastructure for them to offer improved standards of academic excellence. The Government can also do well to consider introducing a policy that would enable private colleges pay less tax on imported materials that are meant to improve on the learning infrastructure and standards in the country. TCZ must be given powers to register colleges of education so that only those colleges which have adequate infrastructure should be registered and accredited. As things stand, TCZ only accredits colleges of education, but registration is done by PACRA. Once this is changed, it would entail that TCZ would be able to ensure that colleges meet the basic minimums before registration in is done, unlike now when their role come in after registration.

VI. CONCLUSION

This article has revealed that infrastructure development is an integral part of the delivery of quality education in teachers' colleges of education. As such, infrastructure in private colleges of education in Zambia requires a lot of attention as the study's findings attest to the fact that the colleges do not have adequate infrastructure for teaching and learning purposes. Furthermore, existing literature demonstrates, on this front, the valuable role that infrastructure plays in the delivery of quality educational whose focus is on the holistic development of the students.

REFERENCES

- [1] Booth, S. (1997). Phenomenology, Learning and Teaching. *Journal of Higher Education and Research Development*. Vol.1.135-15.
- [2] Bray, M, Clarke, P, and Stephens, D. (2002). Education and society in Africa. Braamfontein
- [3] Crampton, F. E. (2009). Spending on school infrastructure: Does Money Matter? *Journal of Educational Administration*, 47(3), 305-322.
- [4] Dudek, M. (2000). Architecture of Schools: The New Learning Environments, Oxford: Architectural Press.
- [5] Errol, D., Helen, H., Lawrence, I. and Clara, W. (2006). Teachers' Attitudes toward Students with Disabilities in Haiti, *International Journal of Special Education Vol 21 no.32*.
- [6] Herzberg, F. (2007). The Motivation to Work. New York: Wiley House International, Vol. 34, No. 1, pp. 9- 6.
- [7] Higher Education Act of 2013. <https://www.parliament.gov.zm/> accessed on May 13, 2021.
- [8] Marlon, F. and S. Booth (2007). Learning UNCI Awareness. New Jersey. Lawrence Erlbaum Associates, Mahwali.
- [9] Ministry of Education, 2000. <https://www.moge.gov.zm/> accessed on May 13, 2021.
- [10] Mudenda, E (2018). Providing Education in Clean Environments. *Zambia Daily*. www.dailymail.co.zm/ Accessed on July 3, 2021.

- [11] Ochiko, Francis (2020). Teachers' attitudes towards inclusive education in selected public primary schools in Teso South Sub-County, Busia County, Kenya. <http://ir.mu.ac.ke:8080/jspui/handle/123456789/3609/> Accessed on August 20, 2021.
- [12] OSISA Zambia (2013). The Status of Education In Zambia Report. <http://www.betuz.org.zm/Accessed on August 19, 2021>.
- [13] Smith, B.O. (1997). Fundamentals of Curriculum Development. New York: World Bank Company.
- [14] Stephens, L. J., and Schaben L. A. (2002). The Effect of Interscholastic Sports Participation on Academic Achievement of Middle Level School Students. *ERIC.NASSP Bulletin*, v86 n. 630, 34-41.
- [15] Teaching Council of Zambia Guidelines, Act No .5, 2013, Laws of Zambia
- [16] Teixeira, J., Amiroso, J. and Gresham J. (2017). Why Education Infrastructure Matters for Learning. blogs.worldbank.org/education/ Accessed on February 1, 2021.
- [17] Times of Zambia (2018). <https://www.times.co.zm/> Accessed on June 12, 2021.
- [18] Zambia Daily Mail (2018). <http://www.daily-mail.co.zm/> Accessed on June 12, 2021.
- [19] What is Quality Education? <https://palnetwork.org/> Accessed on September 25, 2021.