

# Reshaping Strategies of University Libraries in Ghana towards Sustainable Development Goal 4

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## Abstract

Ghana has a large and complex higher learning educational system, with an increasing enrolment each year. Given the global significance of the Sustainable Development Goals, this article aims to assess the roles of Ghanaian university libraries in achieving Sustainable Development Goal 4. The article applied a qualitative research approach to examine the strategies deployed by libraries in Ghana and the purposive sampling technique was used to select interviewees. The findings indicate that university libraries in Ghana are at the forefront of providing information and library services to support capacity building. These libraries have ensured inclusiveness to quality education by providing equitable library services, information access, and unbiased information services to all clients without discrimination. The article identified poor public perceptions of these libraries, inadequate funding, and emerging technologies as challenges facing libraries in Ghana. It was revealed that the areas in which information and library services have contributed to Sustainable Development Goal 4 in Ghana are (1) teaching and learning, (2) cooperation and collaboration among stakeholders, (3) promoting sustainable information practices among stakeholders, and (4) information in specific (specialised) contexts. The article concluded that university libraries in Ghana have created an enabling environment, making them increasingly relevant to national and global development. Strategies deployed by these libraries towards Sustainable Development Goal 4 include creating awareness, conducting cutting-edge research, sustaining lifelong learning and quality education, and providing high quality teaching and learning.

**Keywords:** university libraries, academic libraries, lifelong learning, quality education, access to information, SDG 4

## Introduction

Sustainable growth is a programme that deals with individual progress and the needs of the present generation and also those of the future generation (Tyonum and AmarachiEzegu 2015). Sustainable development encompasses a wide range of interrelated environmental, economic, social, and political problems, all within the limits of the natural resources of the earth, and aims to ensure stability and prosperity for all people by 2030. Also, sustainable development provides present and future generations with a better quality of life (Abata-Ebire, Adebowale, and Ojokuku 2018).

The Sustainable Development Goals (SDGs) adopted by the United Nations at the Millennium Summit serve as an instrument in an extensive development planning agenda to end the poor living conditions of Africans (IFLA 2013). The many conditions depriving Africans of fundamental human rights include access to affordable but quality education, shelter, quality healthcare, and security. According to the Economic Commission for Africa (2005), the leaders of the African continent can lessen poverty, increase the quality of life of their citizens, and decrease the cost of living by ensuring that the SDGs serve as good policy instruments for facilitating development in the sub-Saharan region. However, this cannot be achieved as expected if libraries do not play their role in acquiring, organising, disseminating, and preserving quality, relevant, accurate, and timely information.

The SDGs aim to end starvation and poverty by attaining food safety, and by promoting nutrition and viable agricultural practices. It is the goal of the SDGs to ensure good health of citizens from infancy to old age, and quality education with no discrimination, and to promote gender parity and empowerment for females. Above all, the SDGs ensure the availability of good drinking water and proper sanitation; the consistent supply, affordable, reliable, and sustainable energy; available employment opportunities, and resilient infrastructure, among other things (UNRIC 2015).

Onoyeyan and Adesina (2014) argue that the information and library services in Africa have faced issues concerning Africa's contribution to the SDGs. In an attempt to respond to these concerns, university libraries have, first of all, evaluated their contribution towards their various SDGs and the progress of the African continent, and in this regard aligned their institutional strategies to achieve each goal. Adegoke (2015) agree that libraries have become tools for societal development. Therefore, to enhance individuals to live responsibly, the library must be able to meet users' needs at the appropriate time. The library provides its user community with appropriate information and knowledge which dispel ignorance, hence the degree of confusion about the environment is reduced.

Specifically, Onoyeyan and Adesina (2014) argue that university libraries have a role to "assist in finding, using, and interpreting appropriate information that opens up opportunities for learning, literacy enhancement, entertainment, individual research, critical thinking, and ultimately empowerment in an increasingly complex world". In

this vein, university libraries are in the best position to provide such valuable information to help Africans lead gainful lives as they are equipped to acquire, organise, disseminate, and store information (Satsi 2017). Careful scrutiny of literature showed that a significant gap exists in the literature relating to SDGs in West Africa.

Sound policies, technology, and infrastructure are a few of the resources needed to achieve the SDG 4. Aside from the monetary and material resources, the most critical resource needed is the manipulation and combination of existing knowledge, information, and data and also the production of new knowledge and skilled human resources. Therefore, to ensure the efficient and effective generation and use of knowledge to gain a competitive advantage over Africa's national development challenges, an environment that is conducive to knowledge creation should be provided, and the management of its transfer and its application should be efficiently and effectively done with the help of libraries (Kaniki 2008).

Similar to the developed world, developing economies (such as South Africa, Ghana, Nigeria, Angola, Mauritius, and Kenya) have university libraries that support literacy programmes, that provide safe spaces for learning, and that support researchers to reuse research and data to create new knowledge (Atta-Obeng and Dadzie 2020). Nevertheless, the literature on SDGs shows that governments all over the world are eager to reduce knowledge gaps, poverty, and hunger, and to tackle low-quality education, ill health, gender inequality, women empowerment, and environmental degradation (Onoyeyan and Adesina 2014). SDGs respond to the world's most developmental challenges to improve human lives by giving alternatives in several choices. That notwithstanding, information is key to development and therefore requires the provision of relevant, updated, and adequate information on food, health, security, democracy, education, gender equality, and women empowerment (Nishimura, Ogawa, and Sifuna 2015).

More studies in the last few years have concentrated on the awareness of SDGs and the way in which public libraries drive national development (Atta-Obeng and Dadzie 2020) in developing countries. Yet, the contribution of SDGs has scarcely been investigated in Ghana. The University of Ghana has many universities that provide information and library services both on campus and off-campus and to distance stakeholders. University libraries are viewed as tools to enhance lifelong learning opportunities, ensure inclusiveness and equitable quality education but are inhibited by inadequate funding, a lack of facilities, a lack of equipped library staff, and poor public perceptions. Owing to these challenges, the university libraries are disadvantaged concerning the realisation of SDG 4, target 4.7.

Therefore, this article empirically verifies the contribution of university libraries to promoting inclusive and equitable quality education and lifelong learning opportunities in Ghana. In addition, this article hopes to unearth significant evidence on the role of

Ghanaian university libraries in achieving SDG 4. The following questions were used to guide the article:

- In what way does the University of Ghana Library System ensure inclusive and equitable quality education?
- How does the University of Ghana Library System support lifelong learning opportunities?
- What challenges does the University of Ghana Library System encounter in achieving SDG 4?
- What contributions does the University of Ghana Library System make in relation to SDG 4?

## Literature Review

### **What are SDGs?**

In 2016, the SDGs, also termed global goals, came into effect. SDGs are actions to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity. The SDGs have 17 goals, besides hinging on the Millennium Development Goals (MDGs). By extension from the MDGs, the SDGs include new areas such as climate change, economic inequality, innovation, sustainable consumption, peace, and justice. Notwithstanding, the 17 goals are interconnected and involve tackling issues more commonly associated with another (IFLA 2013).

The SDGs work in the spirit of partnership and pragmatism to make the right choices to improve life in a sustainable way for future generations. They provide clear guidelines and targets for all countries to adopt in accordance with their priorities and the environmental challenges of the world. The SDGs are an inclusive agenda, they tackle the root causes of poverty and unite people to make a positive change for both people and the planet. “Supporting the 2030 Agenda is a top priority for UNDP,” said UNDP Administrator Helen Clark. “The SDGs provide us with a common plan and agenda to tackle some of the pressing challenges facing our worlds such as poverty, climate change, and conflict. The UNDP has the experience and expertise to drive progress and to support countries on the path to sustainable development” (Maya, Brett, and Sridhar 2013).

Given the importance of the SDGs, the Commonwealth Education Hub discussed SDG 4 in 2015. A total of 650 participants comprising governmental ministries, academia, development partners, the media, and the private sector took part. The major outcome of the discussions pointed out that the SDGs help to align efforts in the international and national (local and regional) environments. It was argued that the MDGs were more focused on access to the school by males and females and primary access to primary education. Similarly, the SDG discussions raised concerns that fewer

lessons were drawn or learned from the MDGs in formulating the SDGs (Maya, Brett, and Sridhar 2013).

#### **Libraries and SDG 4**

Libraries in educational establishments hold numerous collections in all formats (digital or print or audiovisual) to meet the needs of their users (Aziz et al. 2011, 149). In this article, the term libraries relate to active institutions holding collections of scholars and of an educative nature. Aчитabwino (2007) stipulates that libraries play an essential role in national development through the support they give to the education sector by supplying relevant information in various formats. Forsyth (2005) insists that libraries are integral to community development as they provide access to information in different forms. Dang (2016) stresses that libraries go beyond formal education by encouraging and sustaining literacy while supporting development. Malekabadizadeh, Shokrane, and Hosseini (2009) state that the cooperation and assistance of librarians are a basis for any nation to attain total development. In this way, development becomes possible through the cooperation and provision of useful information in economic, cultural, social, and political spheres.

The libraries, when realising SDGs, have to acquire, organise, disseminate and preserve quality, relevant, accurate, and timely information to help eradicate poverty and hunger, to ensure environmental sustainability, gender equality and women empowerment, to reduce child mortality, to improve maternal health, to combat HIV/AIDS, malaria and other diseases, and to develop global partnerships. However, information is recognised as being integral to the development and has been defined by Rubin (2017) as processed data capable of being communicated. At this stage, it is very important to note that libraries play a key role in disseminating information. Therefore, for any nation to develop there is the need to have and provide relevant and adequate information.

Furthermore, when situating libraries in the context of SDG 4, increased access to information and knowledge underpinned by universal literacy is an essential pillar to sustainable development. In that manner, strengthening Ghanaian libraries ought to advocate equitable access to information and resilient and sustainable library communities (Becker et al. 2012). Again, libraries must go beyond formal education since they encourage and sustain literacy and support development (Adegoke 2015).

Emphasising the functions of libraries, Baro and Eze (2016) argued that libraries assemble information from countless sources and place them under the command of the individual user, thereby supporting and sustaining individual freedom of inquiry and opinion. Moreover, libraries satisfy a fundamental need of society by granting access to organised information (Connaway 2015). Mchombu and Cadbury (2006) asserted that information is a critical and a strategic resource in human development to ensure literacy acquisition and poverty reduction. The rural and urban poor people require access to appropriate information to fight poverty, deprivation, and illiteracy. Therefore, the establishment of libraries rooted in African communities ensures that poor and

marginalised people have access to information. Forsyth (2005) asserts that libraries help to eradicate poverty and hunger through awareness creation. Tise (2009) asserted that librarians merge indigenous knowledge and expertise from developed countries and package them in formats that are meaningful to the local inhabitants in their quest to eradicate poverty.

Meanwhile, libraries help to achieve universal primary education (Tobias et al. 2014). A study by Uhegbu and Igwe (2006) noted that reports from developing countries often indicate that primary school enrolment keeps dropping, sometimes at a disturbing rate. Alokun (1998) also stated that mass illiteracy has been one of the factors militating against the achievement of societal needs and the desire for the rapid socio-economic and political development of any nation. However, Forsyth (2005) showed that a strong library programme can lead to higher student achievement.

Beyond universal primary education, libraries play an imperative role in promoting gender equality and women empowerment. Cheruvalath (2015) opined that the prospects for achieving the SDGs are both directly and indirectly improved by enhancing gender equality. Empirical evidence suggests that developing countries with less gender inequality tend to have lower poverty rates (International Poverty Centre 2008). Furthermore, libraries offer secure environments in which women and girls can obtain the information they need to take charge of their lives and to influence their societies. Therefore, libraries can help to promote gender equality. Hence, women can be empowered by selected resources that focus on the broad areas of women's work and interests.

In reducing child mortality and improving maternal health, libraries are significant. Child mortality relates to the number of children under the age of five that die because of various factors (Uhegbu and Igwe 2006). Thus, Cheruvalath (2015) pointed out that libraries are places in which information can empower communities to reduce child mortality and improve maternal health. This information can be made available in written, spoken, or electronic form. He added that the information could be available in books, pamphlets, and audio, audiovisual or web-based forms.

Although information communication technology (ICT) has been gaining ground and opportunities in university libraries, it still poses a few challenges. A few African university libraries are embracing technology-based library tools, adequate infrastructure (hardware and software), media instructional lessons, development of local content, and Internet connectivity (Jagtar et al. 2015).

Regarding the harnessing of university libraries to the fullest information service role, Opoku-Mensah (2016) opined that providing vital information or knowledge should be a starting point in the transformative agenda of the SDG 4. He argued that university librarians must show consciousness in their role as SDGs are implemented and they must become key agents in supporting the national implementation processes, especially

on the African continent. The combination of knowledge management and library science must agree with the delivery of development information for sustainable development. In so doing, they become both public institutions and development agents – which are radically different from their previous roles.

Yet, the new technology has the potential to change the traditional library services to digital library services. The government of Ghana supports SDG 4 and ICT literacy through distance or open learning and the one-child-per-laptop policy in educational institutions to connect university stakeholders with inclusiveness and quality education (UNESCO 2015). The above initiatives have facilitated the promotion of ICTs in higher learning institutions, open- and distance-learning programmes, and opportunities for technology-enabled digital library services.

### **Inclusive and Equitable Quality Education and University Libraries**

Equal opportunities for all are what sustainable societies aim at achieving. Inclusive education refers to the right of all persons to education, ensuring the presence, involvement, development and above all, equal opportunities of all students (Medina-García, Doña-Toledo, and Higuera-Rodríguez 2020).

According to the recent assessment of equal opportunities by the United Nations (2017), the issue of equity remains a significant challenge in higher learning institutions. It was reported that children from “the richest 20 per cent of households achieved greater proficiency in reading at the end of their primary and lower secondary education than children from the poorest 20 per cent of households. In most countries with data, urban children scored higher in reading than rural children” (United Nations 2017).

In the new Education Strategic Plan (ESP 2018–2030), the emphasis of the SDG 4/Education 2030 agenda as well as the new government’s vision for education on both Senior High School and Technical/Vocational Education and Training was redefined. The free senior high school policy, introduced in 2017 significantly adds to Ghana’s Free Compulsory Universal Basic Education agenda and goes a long way to guarantee general access to all school children (Dupas, Duflo, and Kremer 2017). The statistics of the last three years reveal a dramatic increase in the literacy rates and more girls enrolled in schools. Although remarkable success is being realised, there remains a disparity between quality and access.

Especially in developing countries, libraries do provide the necessary conditions for stakeholders to achieve free access to information and knowledge by providing opportunities to participate actively in national development. Shrem (2012) asserts that resourcing the libraries in developing countries forms the most efficient weapon in the struggle against the digital divide. Fister (2013) briefed faculty and administrators on information literacy.

Libraries must provide access to global information via the Internet. Libraries at all levels are tools for people to obtain better living conditions. University and college libraries in Africa and especially Ghana directly contribute to the goals of reducing inequalities. Libraries are highly recognised as a catalyst for meeting many of the most important development challenges that exist today (Loewe 2012). As governments and the international community increasingly focused on meeting the needs of citizens in middle-income countries, it is crucial to continue to focus on the needs of the most marginalised and disadvantaged. The recent progress report towards SDGs in 2017 stated, “Achieving inclusive and equitable quality education for all will require increasing efforts, especially in sub-Saharan Africa and Southern Asia and for vulnerable populations, including persons with disabilities, indigenous people, refugee children and poor children in rural areas” (United Nations 2017). It is inferred from the report that Ghanaian university libraries require much effort towards ensuring or supporting inclusiveness, equitable quality education, and lifelong learning opportunities.

It is expedient for university libraries to support inclusiveness towards marginalised people such as people with hearing and physical disabilities and who have visual impairment in the university. Adegoke (2015) argued that university libraries can provide information services by preserving all types of instructional material such as projectors, slides, video, audio, microform, and microfilm. People with visual impairment and hearing and physical disabilities can use these instructional materials with the assistance of an audiovisual librarian. Even more, these resources are good for recreational purposes. It is equally critical that education or literacy programmes benefit from the most rigorous research available and reuse data to create new knowledge. Education has a transformational role to play when dealing with all development challenges in the post-2015 era.

### **Lifelong Learning Opportunities and University Libraries**

This section elucidates the way in which libraries support lifelong learning opportunities. Academics accept that lifelong learning is vital for stakeholders of the university. For an evolving environment in the twenty-first century, individuals can locate and access information that supports their daily needs. University libraries are purposeful to acquire, maintain, develop, and accumulate knowledge and a range of learning strategies and technologies to the benefit of academic lifelong learning (Crowie 2010).

Progressive education defined lifelong learning as the need for schools to prepare children for successful lives (Adegoke 2015). It was grounded in a constructivist theory of learning, which holds that learning is a complex process with both internal and external factors that must work together to maximise the learning power of individuals, drawing on the learner’s interests, needs, capacities, and experiences. The contemporary lifelong learning theory identifies the need for change in skills and competencies of

citizens because of the social, political, economic, and technological changes due to globalisation, which necessitates a change in education (Balapanidou 2015).

Although university libraries are confronted with the challenges of responding to the changing nature of higher education, they have to implement dedicated changes to strongly influence the development and revision of teaching methods such as regular, distance, and virtual ICT-based learning, and the research trends of the institution (Crowie 2010).

To realise the 2030 agenda, IFLA underscored the need to strengthen the information sector to advocate equitable access to information and resilient, sustainable library communities (Hamid and Soroya 2017). Given the background, this article seeks to assess the role played by Ghanaian university libraries in realising SDG 4 which states that “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”. It is noted that this goal is an inclusive agenda, in which root causes affecting quality education and lifelong learning opportunities are identified and rectified for the betterment of future generations.

The SDGs improve lifelong learning opportunities for the most marginalised people in society. Across the globe, lifelong learning opportunities are necessary for personal, social, and national development. The Association of College and Research Libraries (ACRL) posited that “academic and research librarians and libraries are indispensable to a thriving global community of learners and scholars” (Kusimo, Felix, and Chidozie 2019). The ACRL argued that academic and research librarians and their colleagues lead initiatives and continually evolve services that provide scholars and learners with the unfettered ability to create, access, and use the knowledge on a global scale. Librarians drive and enable the transformation of libraries, student learning, and scholarly research by building powerful coalitions and collaborations, setting standards, exploring innovative methods and approaches, modelling behaviour, and embedding their results in dynamic user environments (Fernández-Archilla et al. 2020).

Aspin and Chapman (2001) argue that there are three central elements of lifelong learning that enhances education for a more highly skilled Ghanaian workforce and towards a better democracy. These are the elements for economic progress and development, elements for personal development and fulfilment, and elements for social inclusiveness and democratic understanding and activities that are fundamental to building a more democratic polity and set of social institutions (Aspin and Chapman 2001).

To realise these three elements, a substantial reappraisal of the information provision, resourcing, and the goals of libraries is required. This seems to be a major challenge for governments, policymakers, and educators as they seek to conceptualise lifelong learning and articulate policies to realise the aim of “lifelong learning for all”.

Libraries must benefit all members of society as they are fundamental to the need for “lifelong learning for all”. Malekabadizadeh, Shokraneh and Hosseini (2009) believed that engaging libraries was a necessary prerequisite to and continuing part of participation in the institutions of democracy. Ensuring all future citizens’ liberation from ignorance and potential servitude and exploitation is secured by guaranteeing them access to all forms and fields of human knowledge, understanding, and communication in high quality, wide-ranging and dynamic curriculum. Such libraries provide people with the principal means of personal empowerment, emancipated understanding, and informed choice when exercising their duties and responsibilities in a participative or representative democracy.

### **Challenges Facing Libraries in Achieving SDG 4**

University libraries all over the world are faced with several challenges which have affected the achievement of the SDGs. These challenges include inadequate funding, lack of coordination, and lacking constant review of progress, among other things.

**Funding:** In the view of Nworie et al. (2018), libraries are not adequately funded. Connaway (2015) therefore suggested that libraries be well funded for effectiveness and efficiency to support inclusive and equitable quality education and lifelong learning opportunities. Less funding inhabits universities to adequately provide the requisite infrastructure. Gupta and Madhusudhan (2018) stated that appropriate buildings are needed to protect library resources. They added that books, computers, and audiovisual materials are very sensitive and have to be protected from extreme weather conditions and other risks such as floods and fire. In relation to inadequate staffing, Nworie et al. (2018) iterated that many libraries, especially in Africa, do not have qualified and skilled personnel to do the job well. Notwithstanding, poor and inadequate facilities have also become a pertinent issue for university libraries in meeting their SDG 4. Hence the need for university libraries to have sufficient space and facilities to accommodate new types of material such as computers and readers, and also staff.

**Lack of coordination:** In Ghana, the little or no integration of a library approach towards achieving the SDGs is a major challenge. The Commonwealth Education Hub (2015) reiterated the need to integrate efforts in the respective higher learning institution by extension of the educational sector. Examples of the integrated approach may focus on the value of partnerships or collaboration and the role of different stakeholders in building effective models for positive change. The call for an integrated approach aligns with the emphasis placed on cross-dimensional initiatives, and the 2030 Agenda’s focus on a collaborative and integrated approach to development.

**Lacking constant review of progress:** The lack of progress towards the achievement of university goals can hinder programmes or policies towards SDG 4. In Africa, university libraries rarely review their missions periodically and make adjustments in areas of shortfalls (Gichohi 2015). It is therefore important for more effective and

integrated review processes that can propel the achievement of university libraries in academia and by extension of the SDGs.

SDGs have the potential to be hindered if existing programmes or policies are assumed to be working towards SDG 4 without review. This could limit the development of more effective and integrated programmes or policies which would better propel the achievement of SDG 4 (IFLA 2013).

## Theoretical Foundations

In 1916, the Theory of Lifelong learning was propounded by John Dewey. This theory is adopted for this article. In the context of a developing country such as Ghana, this theory is a prerequisite for reshaping university libraries' strategies towards SDG 4. Indeed, the availability of educational opportunities for citizenry is a prerequisite for informed and effective participation in a democratic society (Lind 2018).

The Lifelong Learning Theory posits that lifelong learning is one in which the personal, intellectual, and social development of library users is considered with the goal of preparing library users to be successful lives. To this end, university libraries focus on the need to help students and staff to become lifelong learners and receive inclusive quality education in Ghana. The theory is used to examine library tools used by academic libraries to promote lifelong learning in the University of Ghana Library System. Through libraries established in higher learning institutions, education must benefit all members of society as they are fundamental to the need for "lifelong learning for all". Ezeani et al. (2017) believed that reshaping the university library towards ensuring inclusiveness and equitable quality education was a necessary prerequisite for national development. Situating Ghanaian university libraries to SDG 4, libraries provide individuals with the principal means of personal empowerment, emancipated understanding, and informed choice when exercising their duties and responsibilities in a participative or representative democracy.

## Methodology

The qualitative research approach was employed through interviews and the observation method in this article. The sampled university libraries in Ghana were the Balme Library (main library), the College of Health Science Library, the Business School Library, the Accra City Campus Library, and the School of Public Health Library. These libraries were selected because they were established not less than three decades ago, and they remained well-resourced and highly patronised by stakeholders of the University of Ghana, Legon.

The University of Ghana was ranked first in the university rankings in Ghana and its location in the central business of Accra was the main reason for the selection. The factors that justified the selection of the five libraries at the University of Ghana were based on the aims and objectives of this article, the age of the respective libraries and

the hallmark of SDGs in the library. The participants were the university librarian and the heads of section from the selected libraries, who were working with at least first- and second-degree qualifications and who have had at least twenty years of library experience.

Initially the librarians from the five libraries agreed to participate in this article but one declined because of non-availability. The author officially informed the participants of an arranged set date for the face-to-face interviews. In all, four directors from the selected libraries were sampled. The face-to-face interviews were held in the respective offices of the four participants, and lasted thirty minutes each. The time frame for the data collection was two weeks. The primary data were obtained from the four librarians of the selected libraries. The secondary data included research and technical reports, textbooks, statistical data, and electronic resources (such as Emerald, Sage publications, and Science Direct). These sources provided the author with a sense of direction and information on the subject matter under investigation. Apart from observation, the main research instrument used to collect the data was an interview schedule.

## Results

### **University Libraries Ensuring Inclusiveness in Quality Education**

The article sought to examine the way in which the University of Ghana Library System ensured inclusiveness in quality education. Two of the participants had the following to say:

As part of the libraries' philosophy in UG, we are to provide equitable, and unbiased library and information services to all our clients without discrimination, which we do. So, we provide information for example; not only for the UG community but to the general public and the international community as well. (Participant 1)

Libraries have values and that provide equitable and unbiased (without) discrimination. That is, we provide equal and equitable information. (Participant 2)

### **University Libraries Ensuring Equitable Quality Education**

On the account of ensuring equitable quality education by libraries, three main ideas were revealed by the participants, namely, providing equal and objective data without prejudice to diverse users, increasing access to quality education at all levels, and collecting, organising and disseminating adequate information, resources and facilities.

University libraries have values that provide equitable and unbiased information (without) discrimination. Buttressing the above, irrespective of economic, physical, and otherwise, information not undermined in any way. It is equally shared across. (Participant 2)

Obtaining a quality education is the foundation to improving people's lives and sustainable development. Major progress has been made towards increasing access to

education at all levels and increasing enrolment rates in schools particularly for women and girls. Basic literacy skills have improved tremendously, yet bolder efforts are needed to make even greater strides for achieving universal education goals. For example, the free senior high policy in 2017 has achieved equality in secondary education between girls and boys. (Participant 3)

Libraries are set up to collect, organise and disseminate adequate information, resources and facilities in an environment that is healthy, safe, protective and gender-sensitive. They support all classes of people, professionals and students in learning, knowledge acquisition and research through provision of information resources that cover all areas of human specialties. Libraries are vital components in the information distribution chain because they serve to expand access to up-to-date information in relevant curricula and materials for the acquisition of basic skills, especially in the areas of literacy, numeracy and skills for life. (Participant 4)

### **University Libraries and Lifelong Learning Opportunities**

The researcher sought to explore the way in which Ghanaian university libraries supported lifelong learning opportunities. A few participants shared similar responses to lifelong learning opportunities:

Lifelong learning initiatives in the form of conferences, library orientation, and literacy skills were performed by these libraries. Specific kinds of initiatives such as website development to cater to alumni, searching techniques, and training organised by the Ghana Library Association. (Participant 1).

Lifelong learning opportunities were supported by university libraries in the manner such as free access to information, literary and instrumental services. Others were reference services, exhibitions, library week celebrations, workshops, and seminars. (Participant 3)

The interview response revealed various activities undertaken by librarians in the University of Ghana to support lifelong learning such as:

The creation of reading rooms, the training on search strategy, debate programmes, reading clubs, and training on research publications develop lifelong learners. Again, the paper revealed that Communication and Information Literacy Skills teaching, training programs, and library orientations for new students were also done for the student within these institutions. In addition, providing access to both print and electronic resources makes it easier for patrons to access information whenever the need arises. (Participant 4)

The results imply that university libraries occupy a significant position in advancing lifelong learning opportunities and linking libraries to the improvement of academic performance (teaching, learning and research) in higher learning institutions.

## **Challenges Facing University Libraries in Realising SDG 4**

In this segment, the participants were asked to explore the challenges encountered by Ghanaian university libraries in achieving SDG 4. Following the responses below, it was clear that university libraries faced different challenges when supporting and implementing SDG 4:

Poor public perception about libraries is not encouraging, inadequate funding, lack of support for library projects and lack of collaboration from stakeholders. (Participant 1)

E-learning as new technology has not yet benefited the entire university campus. In the Balme Library, the media commons could have recorded lectures and play them later for user consumption. Again, the perception of the library is still in a cold light. Other challenges, inadequate funding, lack of support for the project (SDG 4) and collaboration of stakeholders (especially lecturers). (Participant 2)

It was observed by the third interviewee that

... university libraries in achieving SDG 4 have been challenged by inadequate library programmes such as information literacy, inadequate library instructions, and an inadequate blend of local–foreign content, inadequate community health programmes and education on civil and basic human rights, non-existing partnership with other agencies to promote changes needed to meet the SDGs and inadequate libraries or information centres rooted in local communities. (Participant 3)

Participant 4 refers to

... public perception about libraries is not encouraging, hence limited funding for needed library projects. The situation affected management to roll out services that could have highly benefited the users. For instance, equipping the Braille library with needed logistics is non-existing. The library now relies on benevolent organisations to support.

## **Contribution by University Libraries to SDG 4**

All the librarians affirmed some level of contribution by university libraries to SDG 4. The following quote summarises the various contributions to the four main themes:

From time immemorial, libraries have been at the forefront of providing access to information. According to Buckland (1992), the purpose of the library is to provide a service and that service is information access. So, we continue to do that. So, we have libraries spread over with resources to support teaching and learning. For the Balme Library, we have on display SDG as part of marketing SDGs. (Participant 1)

According to Participant 3,

libraries have existed prior to SDG goals and that university libraries provide free access to information, support to capacity building within the university by ensuring that

needed content (soft/hard copies) for lifelong learning is populated. Apart from the mentioned, the respondent opined that in tandem with policymaking, the libraries are mandated to support the SDG 4.

## Discussions of the Findings

### **Ensure Inclusiveness and Equitable Quality Education**

The results of the article revealed that libraries are critical in ensuring inclusiveness and equitable quality education in Ghana.

According to Rashid (2017) and Abascal et al. (2016), there are ICT facilities that ensure inclusiveness to quality education through access to information resources and services in libraries. Although other scholars opined that ICT can be a barrier to people with disabilities, ICT has more potential to enhance information delivery. Through assistive or adaptive technologies such as wheelchairs, lifts, standing frames, gait trainers, augmentative communication devices, ICT enhanced inclusiveness to quality education by bridging people with disabilities and abled people (Gelastopoulou and Kourbetis 2017).

The report by UNESCO (2016) on the post-2015 agenda of SDG 4 revealed that Goal 4 was captured in the Education Sector Medium Term Plan (2014–2017) in Ghana. It tends to focus on increasing equitable access to and participation in quality education, improving quality teaching and learning and also improving efficient management of education service delivery, thereby indicating Ghana's premier university plans towards achieving SDG 4.

Nworie et al. (2018) asserted that university libraries have effectively contributed to the realisation of the SDG of quality education. Especially with the introduction of ICT and digital platforms in universities, the authors opined that libraries need the support of the parent institution to support and improve library facilities and information services. For instance, the university management can invest in information and library resources covering all subjects and specialties in the university. This of course, becomes a prerequisite for dissemination of information literacy.

Oyemike (2016) corroborated earlier findings on university libraries and inclusive, equitable and quality education. Oyemike (2016) revealed a need to make available relevant information resources that are not limited to quality open-access resources, subscription-based resources and other standard resources found in various libraries. ICT or digital services must not be relegated at all. In recent years, ICT has changed the way information or knowledge is accessed, archived or preserved and shared in all universities in Ghana. Today, digital libraries resources are most necessary in providing timely information to remote and on-campus users. Thus, in recognition of the importance of the digital media in the library of today, libraries in Ghana need to improve on their digital acquisition of e-books and e-journals.

## **Supporting Lifelong Learning Opportunities**

Devlin, and Samarawickrema (2010) posited that “university libraries and librarians have evolved to become facilitators of information and lifelong learning opportunities with an emphasis on service, identifying user needs and communicating solutions. The role of the libraries in the provision of information for development is trite. No nation can be developed without relevant information to drive its developmental sustainability. The business of libraries is the acquisition, organisation, dissemination, and preservation of information for sustainable development”.

With regard to the SDGs, the library has a role to play, and this role is in the field of encouraging lifelong learning. Kusimo, Felix, and Chidozie (2019) correctly noted that libraries have been allocated as the basis of knowledge for some time as they provide data, learning and information spaces for the general population. Unfortunately, the results showed that there are no clear-cut policies explicitly targeting goal 4.7 for the achievement of the SDGs. Goal 4.7 of the SDGs explicitly notes that it will ensure that all learners gain the information and skills required to facilitate lifelong learning by 2030 (United Nations 2016). Thus, the use in the library of displayed posters, exhibitions, and leaflets is not enough to drive this agenda.

According to the results, the librarians clarified that lifelong learning is an ongoing learning process in which they are kept up-to-date in their search to provide a lifelong learner with such generic skills. Efforts by these libraries have shown that, through continuous professional development courses, organisations take advantage of opportunities to update themselves in the field, benefiting both at home and abroad. As suggested by Hamid and Soroya (2017), life-long learning is necessary to meet the demands of the current fast-paced, regularly evolving work environments that require an expanding measure of employee learning and flexibility. The article shows that continuing education for library and information services (LIS) practitioners strengthened their technical knowledge and skills, which in turn helped them gain trust in the development of skills for their customers.

This result is corroborated by Amusan et al. (2012) by providing clear indications from their research that libraries provide access for creation to accurate print and electronic content. The answers collected confirm variables from both models adapted for this article that showed that training assisted by the use of information technology contributes to the growth of lifelong learners.

## **Challenges Facing University Libraries in Pursuing SDG 4**

Challenges confronting university libraries and librarians in pursuing SDG 4 have slowed the promotion of knowledge and skills for lifelong learning and quality education in most developing countries including Ghana.

Studies by Ejechi (2018) and Onoyeyan and Adesina (2014) found similar results of less impact by university libraries on SDGs. Among the many challenges were poor funding, poor infrastructure and facilities, and untrained library professionals. The situation adversely affects the attraction and perception of university libraries in the achievement of sustainable development.

Opoku-Mensah (2016) suggested that “African libraries can be directly linked to the implementation of the SDGs, by providing required information or knowledge as the starting point in the transformative agenda of the SDGs and must be harnessed to its fullest”. On that note, library professionals ought to be conscious when executing their role as key agents for the SDG 4 implementers.

Onoyeyan and Adesina (2014) revealed that an unclear strategy for implementing SDGs greatly slows the pace for meeting the target. He suggested an effective collaboration among identified stakeholders who have a key interest in SDG 4. Another challenge that university libraries face is inadequate financial support which is coupled with equipment and library facilities. These challenges have become an undermining issue for university libraries to meet their goals of providing information for development, actualising quality education, and inclusiveness, and promoting lifelong learning in Ghana.

In Nigeria, Akintoye and Opeyemi (2014) have corroborated earlier findings in this article, attributing SDG 4 shortfalls to the short-term priorities of governments and individuals, corrupt practices and unqualified or unskilled library staff. In Ghana, Atta-Obeng, Boakye, and Kwamena (2017) identified unskilled library users who use digital library tools for independent information searching. Atta-Obeng, Boakye, and Kwamena (2017) attributed these challenges to inadequate library staff, the lack of essential management commitment on trainings, ignorance of what information literacy means, the unwillingness of various departments to collaborate for effective development of such initiatives, erratic Internet supply, and inadequate technological infrastructure.

### **Contributions of University Libraries towards the SDG 4**

The result showed that librarians in higher learning institutions are well informed on their vital role to play in making the SDGs a reality in Ghana with regard to the role of libraries in the actualisation of the SDGs. From these findings, it is evident that the library, as a major source of information serving a wide variety of information seekers, is not only critical but also vital to promoting the production of knowledge and building a knowledge culture that is essential to the actualisation of the SDGs. Corroborating the study by Anasi, Ukangwa, and Fagbe (2018), the results confirm that university libraries play a role in providing timely access to information for all that is essential to research, learning, and teaching.

Although library services differ regarding the information needs of the users, Nworie et al. (2018) contend that university libraries facilitate learning, knowledge acquisition,

and research for all groups of individuals, practitioners, and students through the provision of information and library services. In the knowledge delivery chain, libraries are important components because they serve to expand access to up-to-date information in specific curricula and materials for the acquisition of basic skills, especially in the fields of literacy, numeracy, and life skills. According to Anyaoku (2017), librarians are equipped to provide information and are unrivalled in the creation of information tools for access to information. Today, most libraries are hybrid libraries in which information resources are available in print and electronic formats.

## Conclusion

University libraries play a role in the development of global partnerships in acquiring, packaging, organising, and disseminating knowledge, skills, and experience needed to promote national and sustainable development in Ghana.

The reviewed literature contributes to the development of the SDGs and the role of the library in the universities in Ghana. The literature identified gaps in implementing the SDGs in Ghana. Global partnerships, therefore, include the ability for all to access and contribute information, ideas, and knowledge essential in an inclusive information society (Atta-Obeng and Dadzie 2020). This implies that, by enabling access to information in all formats across geographical, cultural, linguistic, and political frontiers, libraries foster understanding and communication, and this brings together some of the ideas for the facilitation of global development.

Salient issues that emerged from this article were the areas of information services that include teaching and learning, cooperation and collaborations among stakeholders, promoting sustainable information practices among stakeholders, and information in specific (specialised) contexts. The findings of the article have proved that there is a significant relationship between libraries and the SDGs.

In conclusion, libraries must strive to provide information or knowledge to sustain lifelong learning and quality education in Ghana and to facilitate more lifelong learning opportunities for all. Again, university libraries as indispensable entities must deliver on short-, medium-, and long-term strategies by constant reviews towards the achievement of SDG 4 and even towards the other 16 SDGs.

The novelty in this article was that university libraries have become hybrid spaces, integrating new activities supported by networked digital technologies (Anasi, Ukangwa, and Fagbe 2018). In addition, university libraries are technology centres capable of bridging digital gaps and accelerating the achievement of SDGs (Fernández-Archilla et al. 2020) in higher learning institutions. Knowledge services are available in university libraries in Ghana and enable individuals to communicate with various social groups and then connect with different creative and community activities (Fernández-Archilla et al. 2020).

## The Way Forward

It is crucial for students with special needs to build their knowledge of the educational curriculum so that they do not regard themselves as outcasts of society. An inclusive curriculum should be applied to give students with special needs a chance. Provision of information professionals such as speech therapists, physiotherapists and occupational therapists should be considered in fields specific to people with mental disabilities. In regular schools, the government should promote the training of special teachers who will enable and encourage children with special needs to go to regular schools.

Effective collaborations are critical to enhancing lifelong learning, inclusiveness, and quality education in Ghana. The key stakeholders such as university library management, university libraries, public libraries, the Ministries of Education and Gender, library staff, and university faculties must effectively coordinate to realise SDG 4 in Ghana. Mere awareness creation of the SDGs is not enough; university libraries could assign specific roles to each stakeholder, with constant monitoring and evaluation. After the review, corrections and new benchmarks are set for the stakeholders.

In terms of providing resources, the government, funders, and other stakeholders must adequately equip the university libraries with the required resources such as space, financial resources, staffing, hosting local forums, and partnering with other agencies to enhance development. Finally, it is also important for national goals, needs and priorities to be resourced, hence developing pragmatic programmes and actions to deal with specific library-related infrastructure concerns (inclusiveness, equitable quality education, and lifelong learning).

ICTs have great potential to help bridge the information gap between developed and developing countries such as Ghana, the poor and the rich, reached and unreached clients of the library, and library users with disabilities and able library users in order to achieve SDG 4.

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