

Sustainable development goal four (SDG 4) in Ghana: Can second cycle school libraries play a role?

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Abstract

School libraries have a strong commitment to achieving Sustainable Development Goal (SDG) four. The United Nations SDG four aims to ensure inclusive and equitable education and promote lifelong learning opportunities for all. Librarians are in the right position to foster the attainment of the SDGs. Therefore, this study sought to investigate how school libraries in high schools attain SDG four at the Presbyterian Boys' Senior High School, Benkum Senior High School, and Kwabenya Senior High School. This study was guided by the Partnership Relationships Model. This study adopted a quantitative approach and survey research design to select 257 out of the total population of 2574 using a stratified sampling method. Statistical analyses were performed using the Statistical Package for Social Sciences. The study found that most respondents had a basic level of knowledge of what constitutes SDG four. The Chi-square test showed that there is a relationship between school libraries and SDG four in Kwabenya Senior High School, unlike in Presbyterian and Benkum Senior High Schools. The findings can be explained by the fact that in Kwabenya, the school library plays a critical role by supporting teaching and learning in schools, but in Presbyterian and Benkum, school libraries only provide training for teachers and learners. The study concluded that it is important for school management to assist the school library through the provision of training and supporting teaching and learning to learners in attaining SDG four with available resources. The study recommended the following, awareness creation of SDG four through workshops, provision of training, and enhancement of collection to support the teaching and learning of learners.

Keywords

sustainable development goals (SDGs), sustainable development goal (SDG) four, libraries, school libraries, learners (students), Ghana.

Introduction

The concept of sustainable development was established at the United Nations with the goal of accomplishing a set of applicable objectives that balance the three elements of sustainable development: ecological, social, and economic (Kuwornu, 2017). The new improvement plan is based on the SDGs. In

September 2015, the United Nations (UN) dispatched seventeen (17) SDGs extensively characterized, long-term objectives addressing worldwide social,

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financial, and environmental moves that should be overcome in the next 15 years (United Nations, 2015). The United Nations (2015) portrayed SDGs, also called Agenda 2030, as inseparable and incorporated, adjusting the monetary, social, and environmental elements of sustainable development.

SDG four aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (UNESCO, 2016; United Nations, 2019). Obtaining quality education is the foundation of enhancing people's lives and sustainable development (Nworie et al., 2018). The goal four aims to provide equal access to affordable vocational training, eliminate gender and wealth disparities, and achieve universal access to quality higher education (United Nations, 2019).

In the attainment of SDG four, school libraries play a critical role, as individuals are given access to information to promote access, equity, and quality education. According to Ogunbote and Odunewu (2008), school libraries provide resources and an environment inside the educational systems, where students can find and build up their capacities, where educators can enhance their aptitudes and find a wide scope of learning resources. Therefore, the authors intend to find out how school libraries are working to help achieve SDG four in the Presbyterian Boys', Benkum, and Kwabenya Senior High Schools libraries in Ghana.

Statement of the problem

School libraries form an integral part as far as SDG four is to be achieved. Lonsdale (2003) pointed out that adequate school libraries inspire learners, arouse learning and creativity, and support educators in embracing an expansive scope of teaching procedures, which helps to promote the quality of education received by learners.

However, despite the relevance of school libraries in SDG four, a study by Salahuddin and Aminuzzaman (2011) indicated that the quality of higher education in Bangladesh has been deteriorating steadily in some areas. A preliminary observation by the authors at the three selected schools revealed that despite the schools' management efforts to increase infrastructure (especially the library) and equip learners in their academic performance, low-quality learning among the learners of the Presbyterian Boys', Benkum and Kwabenya Senior High Schools still exists. This aids the authors in gathering quantitative data from respondents in order to investigate how

school libraries in high schools attain SDG four at Presbyterian Boys', Benkum, and Kwabenya Senior High Schools.

Objectives of the study

The aim of the study was to investigate the role that second cycle school libraries play in attaining SDG at Presbyterian Boys', Benkum and Kwabenya Senior High Schools in Ghana. The specific objectives of the study were to:

1. determine the level of knowledge of SDG four among Presbyterian Boys', Benkum, and Kwabenya second cycle school libraries;
2. investigate the roles of school libraries towards the attainment of SDG four;
3. establish the relationship between school libraries and SDG four in the selected second cycle school libraries.

This study provides a basis for the adoption of relevant policies in the second-cycle education sector especially the libraries for SDG four in Ghana, which helps to promote lifelong opportunities for all by 2030. This study is divided into five sections. Section 2 presents a review of the relevant literature. Section 3 discusses the research methodology, and Section 4 presents a discussion of the results. Finally, Section 5 presents the conclusion and recommendations.

Theoretical framework

The theoretical framework guided this research. It guides the methodology or method in which the research plans to find answers to the research questions. This study adapted the Partnership Relationships Model proposed by Tachie-Donkor et al. (2019).

This theory states that attaining SDG from the senior high school level demands effective partnerships and collaborative efforts among various actors including school libraries, educational systems, and stakeholders. This implies that the library must collaborate with stakeholders to provide access to information resources in many formats for all school children within the educational system. The educational system must ensure that children and all stakeholders participate fully in inclusive quality education so that every learner's needs are met, thereby attaining SDG four. The outcomes include inclusive education, quality education, and life-long learning skills (Tachie-Donkor et al., 2019) (Figure 1).

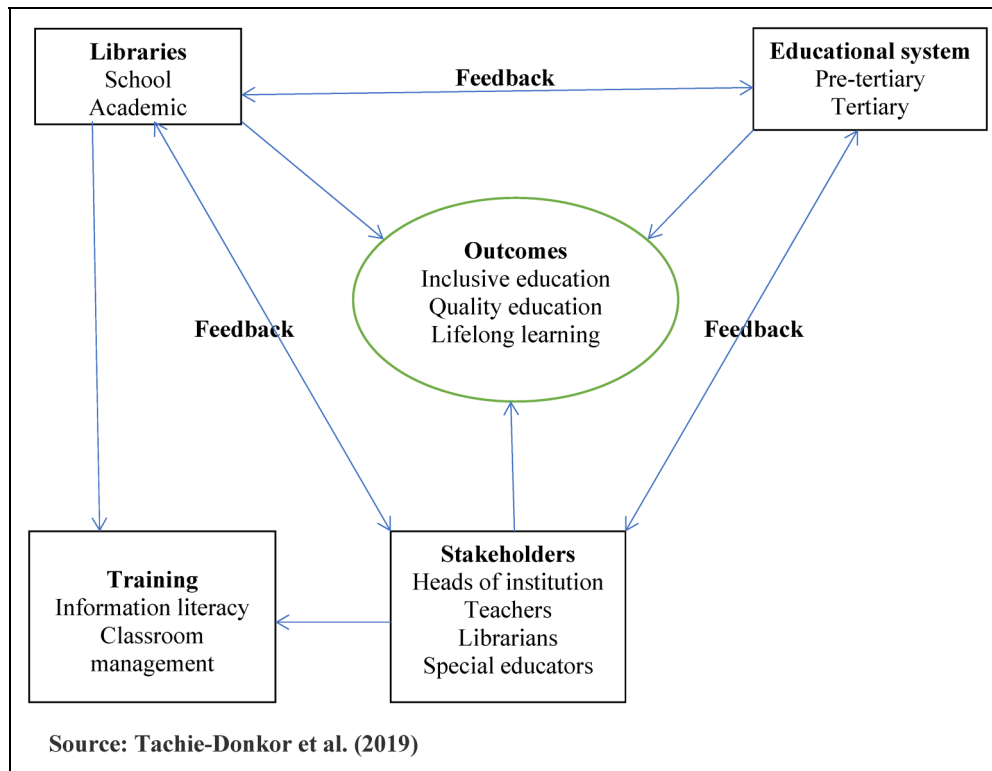


Figure 1. Partnership relationships model.
Source: Tachie-Donkor et al. (2019)

Application of the theory to the study

The model is relevant to the study because it accounts for the knowledge of SDG four which ensures quality education, and the role school libraries are playing towards the attainment of SDG four. This model established that all stakeholders such as librarians, teachers, head teachers, and education must come onboard to achieve SDG four of ensuring quality education in second cycle schools. Also, this model indicates how feedback from libraries, educational systems, and stakeholders leads to the effective implementation of SDG four. As a result of this feedback, training programmes must be organized by libraries and stakeholders in order to ensure SDG four includes inclusive education, quality education, and lifelong learning. Therefore, this model is important because it is an effective way to attain SDG four in many ways, including offering access to quality education to learners.

Literature review

The authors reveal relevant literature pertaining to this study. The literature was reviewed under the following sub-headings: knowledge of SDG four, roles of school

libraries in the attainment of SDG four, relationship between school libraries and SDG four.

Knowledge of SDG four

SDG four aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all boys and girls to complete pre-school and secondary education by 2030 (UNOOSA, 2022). The main goal was to provide equal access to high-quality education. Quality education, according to UNESCO (2014), depends on the reason that educational aims are met and purposes satisfied, with quality viewed as how social orders characterize the purpose of education. Few studies have been conducted on the awareness and knowledge of SDG four. A study by Atta-Obeng and Dadzie (2020) found that respondents knew that goal four focused on education, but could not tell the details of SDG four. On the other hand, Madsen (2013) indicated a rising awareness that education can play a significant role in confronting the challenges of the 21st century. SDG four strives to offer equal and equitable education and create opportunities for continuous learning (Saini et al., 2022).

Libraries are, therefore, in the right position to assist learners in becoming lifelong learners through knowledge creation (Kumar et al., 2015; O’Kelly et al., 2015). For libraries to provide quality education, there is a need for information services, proper library infrastructure, facilities, and library resources to support the school curriculum for quality education (Mahwasane, 2017). Therefore, it can be established that quality education in SDG four is achieved through knowledge creation of resources available to learners. This implies that various stakeholders such as librarians, headteachers, and learners need to create awareness and knowledge of SDG four in the school library.

Roles of school libraries towards the attainment of SDG four

School libraries are a type of library in basic and secondary schools, with the aim of supporting learning abilities and quality education in schools (Ifijeh et al., 2016). The activities of the school library are important for the teaching and learning process of schools (Shonhe, 2019). The school library provides staff and other professionals with various routes to find and utilize information to update them during this irregular information period (Moreira, 2010). The school library fills a reason for educating and learning in schools and furnishes learners with in-depth knowledge of the available materials. In meeting quality education, the school library provides print and electronic materials such as encyclopaedias, dictionaries, periodicals, textbooks, storybooks, and e-books to support learning and recreational activities of the school (Mahwasane, 2017; Tachie-Donkor et al., 2019). These resources must be made available in the school library for learners and teachers to use it.

The librarian must assist learners in acquiring the necessary information literacy skills on how to use school libraries and make sure to market library resources to learners so that they will become aware of the resources available in the library (Mahwasane, 2017). Also, Tachie-Donkor et al. (2019) indicated that teachers and librarians have the power to expose learners to quality reading materials for educational purposes, inculcating information literacy skills into them to develop the requisite skills. It is therefore important for libraries, institutions, and other stakeholders to organize training programmes on information literacy and lifelong learning skills for learners (Tachie-Donkor et al., 2019). These critical roles that school libraries play are geared toward meeting SDG four.

Relationship between school libraries and SDG four

School libraries help learners to educate themselves as well as build knowledge and understanding to make informed decisions and work hard to solve problems. It is therefore important for schools to have libraries in order to promote literacy, numeracy and reading culture among the young generations (Mulkeen and Chen, 2008). The school library provides resources for a wider and deeper understanding of learners in various schools in order to achieve SDG four (Mkumbo, 2016).

Abata-Ebire et al. (2018) confirmed that libraries ought to provide information literacy skills and long-life learning for clients by instructing and enlightening them who have relevant skills, including specialized and professional skills for business, decent jobs, and entrepreneurship. On the other hand, Allam (2017) indicated a strong relationship between quality education and SDGs. Allam (2017) indicated that quality education can bring big changes in the planning, policy making, and implementation of the SDGs.

In summary, the authors discussed SDG four, which ensures quality education for all the learners. Awareness must be created regarding this goal and the library is an agent for this awareness creation. Thus, the school library plays a major role in attaining SDG four by paying vital attention to clients and ensuring their development. In this manner, school libraries need to provide resources in print, electronic, and non-print forms for learners and teachers, thereby attaining SDG four. The school library must provide these resources to relevant stakeholders, which will aid the school library in playing a critical role in attaining SDG four.

Methodology

The study adopted a quantitative approach and survey research design. The survey research design helped the authors to gather quantitative data from a sample of the population. The target population for this study was Form Three Senior High School Students (S.H.S. 3) of the Presbyterian Boys’, Benkum, and Kwabenya schools studying various courses comprising of General Arts, Business, General Science, Home Economics, Agricultural Science, Visual Art, and Technical Skills. The total population of students for Presbyterian Boys’, Benkum, and Kwabenya Senior High Schools was 1007, 1144 and 423 respectively totalling 2574 (Table 1). The justification for selecting these schools was the fact that these three senior high schools are public schools; they all emphasize quality

Table 1. Population and sample size of form three senior high school students (S.H.S. 3) of the presbyterian boys', Benkum, and Kwabenya schools.

Programme (Form three)	Population			Sample Size		
	Presbyterian Boys'	Benkum	Kwabenya	Presbyterian Boys'	Benkum	Kwabenya
General Arts	180	448	94	18	45	9
Business	172	178	45	17	18	5
General Science	624	255	100	62	26	10
Home Economics	-	150	81	-	15	8
Visual Arts	31	78	43	3	8	4
Agricultural Science	-	35	-	-	4	-
Technical skills	-	-	60	-	-	6
Total	1,007	1,144	423	100	115	42
Grand total		2,574			257	

Source: Field data (2020)

education, and they are “A, B, and C schools” according to the ranking of the senior high schools.

The authors chose the sample size of learners by referring to the sampling ratios proposed by Neuman (2014) that, for equal accuracy, he proposed 10% ideal for the population above 1000 as compared to 30% of numbers below 1000. In this manner, the authors selected a sample size of 257, which is 10% of 2574 respondents from the second-cycle schools. This study used a stratified sampling method. A stratified sampling method was used to select Form Three Senior High School Students (S.H.S. 3). Stratified sampling is a type of sampling in which individuals are divided into strata (groups), and selection is made on each stratum by simple random sampling. A stratified sampling method was used to divide the population into several types (Shi, 2015). In this study, the stratum represents each course, namely, General Arts, Business, and General Science among others. This means that out of every form, a specific number of respondents were selected to participate in the study. This gives all subsets of the sample frame equal selection probabilities. To allow for an equal representation of learners from each stratum, a formula proposed by Jawale (2012) was used to select a specific number of respondents:

$$\text{Stratified sampling} = \frac{\text{Population for each stratum}}{\text{Population size for stratum}} \times \text{total sample size}$$

The questionnaire was the main instrument used for the data collection. The choice of the questionnaire was informed by the large amount of information that can be collected from a large number of people within a short time, and the results of the questionnaire can be

quickly and easily quantified using software. The authors developed a questionnaire for all senior high school students. The development of the questionnaire was influenced by the review of relevant literature related to the study. The questionnaire consisted of a combination of closed and open questions. The questionnaire was structured into five sections: Section A was the demographic information including gender, age, and programme of study; Section B was the level of knowledge of SDG four; Section C was the role of the school library in attaining SDG four; and Section D includes the relationship between school libraries and SDG four.

The authors pretested the questionnaire before collecting data in the field. The authors pretested the instruments to identify and rectify flaws and clarify the errors in the instruments. The questionnaire was pretested at Accra Girls and St. Johns' Grammar Senior High School by conveniently selecting five (5) third-year students from each school. The authors used these schools because they had characteristics similar to those of the present study.

The questionnaire was self-administered after permission was granted by the three selected schools. First, the authors explained the purpose of the research before administering the questionnaire to respondents. With the help of the school prefect, the questionnaire was distributed to the respondents and collected after completion. Respondents used an average of ten (10) minutes to answer the questions. The authors administered 257 questionnaires to respondents in the field, of which 227 were fully completed and returned, giving a response rate of 88%.

Statistical Package for Social Sciences (SPSS) version 25 was used to analyse quantitative data.

Table 2. Demographics of respondents.

Demographics	Presbyterian Boys'		Benkum		Kwabenya	
	Freq.	%	Freq.	%	Freq.	%
Gender						
Male	80	100.0	28	26.7	7	16.7
Female	-	-	77	73.3	35	83.3
Age						
Below 17 years	24	30.0	2	1.9	2	4.8
17-20 years	56	70.0	100	95.2	32	76.2
21-24 years	-	-	3	2.9	8	19.0
Programme						
General Arts	14	17.5	45	42.9	9	21.4
Business	17	21.2	15	14.3	5	11.9
General Science	46	57.5	23	21.9	10	23.8
Home Economics	-	-	14	13.3	8	19.1
Visual Arts	3	3.8	6	5.7	4	9.5
Agricultural Science	-	-	2	1.9	-	-
Technical Skills	-	-	-	-	6	14.3
Total	80	100.0	105	100.0	42	100.0

The SPSS is the most widely used statistical software for analysing quantitative data in the Social Sciences. The results of the study are presented in the form of frequency tables, charts, and chi-squared test.

Ethical consideration

A brief explanation of what the authors needed the data for was provided. The respondents were assured of confidentiality before the questionnaires were sent to them. Regarding anonymity, the respondents were not required to provide their names on the questionnaires. Finally, the authors adhered to the University of Ghana code of ethics for conducting the research, and all references are acknowledged.

Results and discussion

This section provides the results and a discussion of the findings from the three senior high schools. It includes demographic information, respondents' knowledge of SDG four, the role of libraries in achieving this goal, and the relationship between school libraries and SDG four.

Demographic information

Demographics are important because they provide a broad understanding of the various characteristics of a population. This information helps various stakeholders make decisions concerning the population, which can have a profound impact on the life of the

individual. With regards to this study, demographic information includes gender, age, and programme of study. Their responses are captured in Table 2.

As shown in Table 2, the findings revealed that all the respondents from the Presbyterian Boys' (100%) were males, while the majority of the respondents from Benkum (73.3%) and Kwabenya (83.3%) were females. This finding disagrees with that of Gyesi (2016), who indicated that more males engage in his study than females. It can also be established from the table that the majority of the respondents from Presbyterian Boys' (70.0%), Benkum (95.2%), and Kwabenya (76.2%) fall within the age range of 17–20 years. This finding slightly disagrees with that of Yeboah et al. (2017), who found that the majority of respondents were between 15 and 17 years old. Finally, the findings revealed that the majority of the respondents from Presbyterian Boys' (57.5%) and Kwabenya (23.8%) offered the General Science programme while the majority of the respondents from Benkum (42.9%) offered the General Arts programme. This finding is consistent with that of Yeboah et al. (2017), who indicated that the majority of students offered Science and General Arts. The findings show that learners who engaged in the study were from the Science and General Arts classes.

Student's level of knowledge of SDG four

Generally, the students' level of knowledge of SDG four is important because it promotes quality

education and lifelong learning opportunities for all students by 2030. This section sought knowledge of SDG four and a rating of the level of knowledge.

Knowledge of SDG four

Knowledge about SDG four helps to access SDG four in the school and the resources available in the school library to achieve SDG four. Therefore, respondents were required to rate their level of knowledge of SDG four. Their responses are shown in Figure 2.

From Figure 2, the findings revealed that 54 (67.5%) of the respondents from Presbyterian Boys' had not heard about SDG four. In the case of Benkum and Kwabenya, 82 (78.1%) and 30 (71.4%) respondents, respectively, indicated that they did not have knowledge of SDG four. It can therefore be established that most of the respondents from the Presbyterian Boys', Benkum, and Kwabenya have not heard about SDG four. This clearly shows that respondents had basic knowledge of SDG four. This is not surprising because knowledge of SDG four is mostly acquired at the tertiary education rather than at the middle-level schools. Alternatively, it is also important for awareness to be created in high schools before learners reach the tertiary level. This is because awareness created at an early stage assists learners in supporting the quality education that the United Nations intends to achieve by 2030. This finding disagrees with that of Atta-Obeng and Dadzie (2020), who found that respondents knew that goal four focused on education. The difference in these findings is attributed to the study participants; thus, the

present study used second-cycle learners, whereas Atta-Obeng and Dadzie's (2020) study used librarians. It is an indication that librarians are taught SDG four in library schools, and as such, there is the need to promote it to learners, thereby achieving quality of education. According to Filho et al. (2019), level of awareness is the foundation of accomplishment, and without sufficient awareness there can be no optimal achievement. However, Madsen (2013) indicated a rising awareness that education could play a significant role in confronting the challenges of the 21st century. This lack of awareness makes it difficult to achieve quality education in schools. It is therefore important for the school library to provide the necessary materials on SDG four for learners to know their right of quality education that the UN intends to achieve by 2030.

Rating the level of knowledge

Respondents were asked to rate their level of knowledge of SDG four. Their responses are depicted in Figure 3.

As seen in Figure 3, 59 (73.8%) of the respondents from the Presbyterian Boys' indicated their level of knowledge of SDG four as basic, 66 (62.9%) of the respondents from Benkum indicated their level of knowledge of SDG four as basic, and 26 (61.9%) of the respondents from Kwabenya indicated basic level of knowledge. Therefore, it can be seen from the findings that Presbyterian Boys', Benkum, and Kwabenya all have a basic level of knowledge of SDG four. The basic forms of knowledge of SDG four indicate that more awareness must be created by the school library. Awareness can be created through the provision of

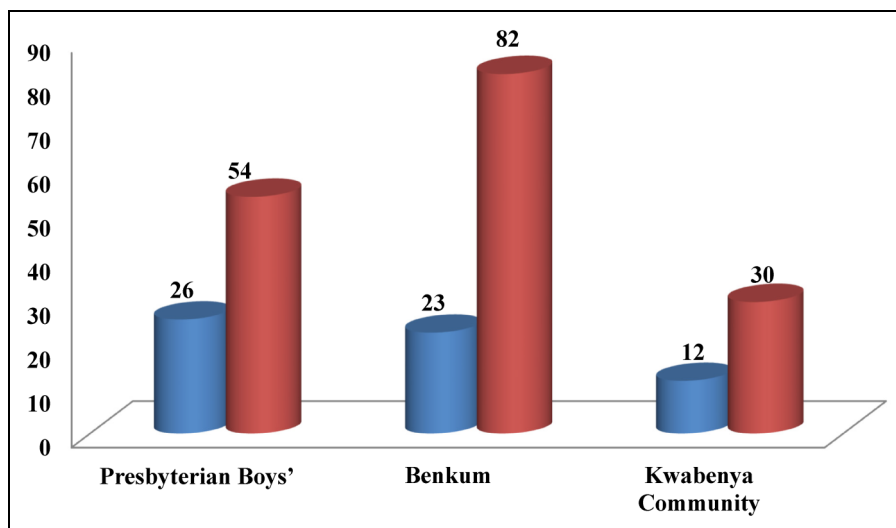


Figure 2. Knowledge of SDG four (N=227).

materials on SDG four in the school library and library staff, encouraging learners to read these materials. This level of awareness creation will aid all stakeholders in promoting the quality education that the UN intends to achieve by 2030.

Role of school library in attaining SDG four

The authors asked a further question to solicit information from respondents as to the role the school library is playing in attaining SDG four. Respondents' responses are captured in Table 3.

From Table 3, it can be deduced from the results that the 37 (46.3%) majority of the respondents in Presbyterian Boys' indicated providing training for teachers and learners as the role of school libraries in attaining SDG four. Additionally, the results from Benkum indicated that 90 (85.7%) respondents chose the provision of training to learners as the role of the school library. Regarding Kwabenya, 22 (52.4%) respondents indicated the role of the school

library as supporting teaching and learning in schools. In summary, while most of the respondents from Presbyterian Boys' and Benkum indicated the provision of training to learners as the role of school libraries in attaining SDG four, most of the respondents from Kwabenya indicated that they support teaching and learning in schools.

The results revealed that the library played a critical role in ensuring SDG four through the provision of training and supporting teaching and learning to learners. This implies that school libraries are very important to the lives of learners. It can also be inferred that school libraries provide training and support teaching and learning on the use of the resources needed to ensure SDG four in the school. Libraries, institutions, and other stakeholders must organize training programmes on information literacy and lifelong learning skills for learners (Tachie-Donkor et al., 2019). This training will expose learners to quality reading materials for educational purposes and inculcate information literacy skills to develop the requisite skills (Tachie-Donkor et al., 2019). Also, Baro and Eze (2016); Tachie-Donkor et al. (2019) supported the view that the library plays a critical role in the life of patrons through training on resources. However, the result is inconsistent with that of Dzandza (2017), who testified that none of the staff in all three libraries are aware of the roles their libraries can play to help attain SDGs. This was attributed to the fact that school libraries were not providing any services targeted at achieving the SDGs. This implies that awareness creation will help the school library play its role in ensuring SDG four. It can therefore be deduced that the school libraries continued to play their roles in ensuring the betterment of learners through training on the available resources on SDGs.

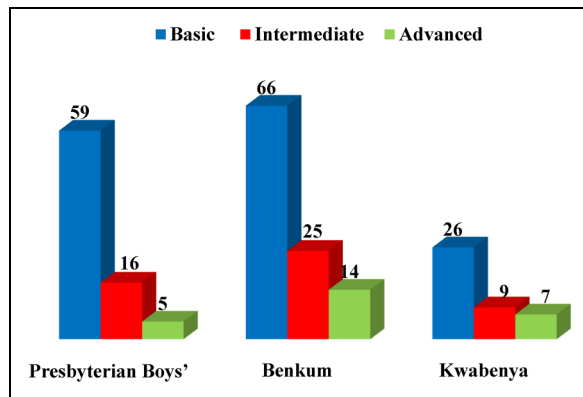


Figure 3. Rating the level of knowledge.

Table 3. Role of the school library.

Role of school libraries	Presbyterian Boys'		Benkum		Kwabenya	
	Freq.	%	Freq.	%	Freq.	%
Provision of training for learners	37	46.3	90	85.7	4	9.5
Provision of quality library materials	6	6	6	5.7	5	11.9
Information literacy skills	14	17.5	2	1.9	3	7.1
Supporting teaching and learning in schools	15	18.8	1	1.0	22	52.4
Collaborate with teachers to embed information literacy across curriculum	-	-	3	2.9	4	9.5
Provision of guidance and counselling	-	-	-	-	-	-
Provision of quality library space or environment for research	-	-	2	1.9	1	2.4
Support learner independent learning	1	1.3	1	1.0	3	7.1
Total	80	100.0	105	100.0	42	100.0

Table 4. Resources provided and used by learners to attain SDG four.

Resources and Used by Learners	Presbyterian Boys'		Benkum		Kwabanya	
	Yes Freq. (%)	No Freq. (%)	Yes Freq. (%)	No Freq. (%)	Yes Freq. (%)	No Freq. (%)
Books	71 (88.8%)	9 (11.3%)	70 (66.7%)	35 (33.3%)	35 (83.3%)	7 (16.7%)
Newspapers	66 (82.5%)	14 (17.5%)	70 (66.7%)	35 (33.3%)	16 (38.1%)	26 (61.9%)
Magazines	55 (68.8%)	25 (31.3%)	42 (40.0%)	63 (60.0%)	22 (52.4%)	20 (47.6%)
Computers	44 (55.0%)	36 (45.0%)	36 (34.3%)	69 (65.7%)	22 (52.4%)	20 (47.6%)
E-books	26 (32.5%)	54 (67.5%)	11 (10.5%)	94 (89.5%)	14 (33.3%)	28 (66.7%)
Charts/maps/globes	39 (48.8%)	41 (51.2%)	40 (38.1%)	65 (61.9%)	14 (33.3%)	28 (66.7%)
Dictionaries/encyclopedias	61 (76.3%)	19 (23.8%)	65 (61.9%)	40 (38.1%)	31 (73.8%)	11 (26.2%)
Printed pamphlets	38 (47.5%)	42 (52.5%)	43 (41.0%)	62 (59.0%)	23 (54.8%)	19 (45.2%)
DVDs	10 (12.5%)	70 (87.5%)	11 (10.5%)	94 (89.7%)	10 (23.8%)	32 (76.2%)
Electronic/online databases	30 (37.5%)	50 (62.5%)	24 (22.9%)	81 (77.1%)	20 (47.6%)	22 (52.4%)
Handbooks	32 (40.0%)	48 (60.0%)	35 (33.3%)	70 (66.7%)	25 (59.5%)	17 (40.5%)
Other Reference materials such as manuals, calendars	47 (58.8%)	33 (41.2%)	53 (50.5%)	52 (49.5%)	21 (50.0%)	21 (50.0%)

Resources provided and used by learners to attain SDG four

A resource is a source of information. Respondents were asked to indicate the resources provided by the school library and used by learners to attain the SDG four. Their responses are depicted in Table 4.

Table 4 reveals that 71 (88.8%) of the respondents from Presbyterian Boys' indicated that the library provides books in attaining SDG four. In relation to Benkum, the findings showed that 70 (66.7%) of the respondents indicated that the library provided books and newspapers in SDG four, whereas the majority of the respondents from Kwabanya indicated that the school library provided books (83.3%). The results revealed that most of the respondents in the Presbyterian Boy's and Kwabanya SHS indicated books, while most of the respondents from Benkum indicated both books and newspapers as resources provided and used by learners. The choice of print resources is attributed to the fact that they are the most dominant resources in school libraries. This also means that electronic resources are very expensive for middle-level schools to subscribe to. This finding corroborates that of the Department of Education (2009), who revealed that school libraries need to facilitate quality education among learners and teachers by providing print, electronic, and non-print materials. This means that the provision of more print resources than electronic and non-print resources is essential for ensuring quality education. This is also an indication that school libraries must provide current materials for learners to use. This result is consistent with that of Dzandza (2017) on the

“preparedness of Ghana's school libraries towards the achievement of the SDGs: a study of senior high schools in the Akwapim North District”. It was found that all libraries have print materials of over thousand in the subject area that is being taught in schools. Therefore, school libraries play a critical role in attaining SDG four through the provision of materials.

Relationship between school libraries and SDG four

School libraries ensure the attainment of SDG four through the provision of resources. This implies that the school library is the independent variable and SDG four is the dependent variable. A chi-square test was performed to examine the relationship between the school library and SDG four in the three schools. Table 5 captured the chi-square test:

The findings from the chi-square test (Table 5) establish the relationship between the school library and SDG four from Presbyterian Boys'. The chi-square test value of 10.978, d.f 10, and a probability value of 0.359 indicate that there is no significant relationship between the school library and SDG four. The authors used the Chi-Square test to establish the relationship between the level of knowledge of SDG four and school libraries in Benkum. The chi-square test value of 10.627, d.f of 12, and a probability value of .561 (Table 5) prove that there is no significant relationship between the school library and SDG four. In relation to Kwabanya, the chi-square value supports it with a value of 22.533, d.f of 12, and p-value .032 shown in Table 5 meaning that the

Table 5. Chi-square analysis of the school libraries and level of knowledge of SDG four.

		Value	Degree of freedom (Df)	Probability (P-value)
Presbyterian Boys'	Pearson Chi-square	10.978	10	.359
	Number of Valid Cases	80		
Benkum	Pearson Chi-square	10.627	12	.561
	Number of Valid Cases	105		
Kwabanya	Pearson Chi-square	22.533	12	.032
	Number of Valid Cases	42		

school library contributes to SDG four. That is, there was a significant relationship between the school library and SDG four.

The findings revealed that there is no relationship between school libraries and SDG four in Presbyterian and Benkum, but there is a relationship in Kwabanya. This means that school libraries did not necessarily affect the achievement of achieving SDG four in Presbyterian and Benkum, but not Kwabanya. This can be attributed to the fact that the knowledge of SDG four is basic. Most importantly, school libraries play a critical role in Kwabanya by supporting teaching and learning in schools. This means that the school library promotes SDG four through its activities. In Presbyterian and Benkum, the situation is different because of the role the school library plays in providing training for teachers and learners. This means that training alone will not facilitate or influence the school library's role in achieving SDG four since it is limited in scope. This finding in relation to Kwabanya is consistent with those of Tachie-Donkor et al. (2019). They indicated that school and academic libraries play a critical role in attaining SDG four. This finding is inconsistent with that of Allam (2017), who explored the relationship between quality education and the SDGs. It was found that there is an important relationship between quality education and the attainment of other sustainable development goals. Allam's (2017) study was attributed to the fact that national and international agencies related to the 17 goals of sustainable development and found that the quality of education can bring changes to SDGs in relation to their planning, policy-making, and implementation.

Theoretical interpretation of the theory to the work

This study adopted the Partnership Relationships Model proposed by Tachie-Donkor et al. (2019). The theory states that attaining SDG from senior high school level demands effective partnerships and collaborative

efforts among the various actors including school libraries, educational systems, and stakeholders.

This study provides some evidence of the Partnership Relationships Model in the context of SDG four in second-cycle school libraries in Ghana. The study indicated that learners had a basic knowledge of SDG four. Another significant contribution of the model was the school library played its role by providing training and supporting teaching and learning to learners. Also, the study made contribution by indicating that there is no relationship between the school library and SDG four in Presbyterian and Benkum, but there is a relationship in Kwabanya.

Conclusion

The authors investigated how libraries in high schools attain SDG four at Presbyterian Boys', Benkum, and Kwabanya Senior High Schools. The level of knowledge of SDG four is very important for achieving quality education. It is therefore prudent for school libraries to provide the required resources to all stakeholders. This role will facilitate the activities of school libraries in playing a critical role in attaining SDG four through the provision of training and supporting teaching and learning to learners. Therefore, it is important for school management to assist the school library in attaining SDG four.

Recommendations

The following recommendations are put forward based on the results and conclusions.

First, the study revealed that most respondents had basic knowledge of SDG four. Therefore, learners need to learn more about SDG four through workshops, seminars, media, newspapers, and internet. There is the need for awareness creation of SDG four through various media platforms of schools, communities, and reading clubs, for teachers to consciously give learners assignments on SDGs and SDG four that require them to go to the library to

learn more about it. This will go a long way to inculcate learners' lifelong learning habits and ensure quality education. This can easily be possible by the Ghana Education Service, adding the SDGs, especially goal four, to the syllabus, which will force teachers to teach and learners to learn more about it. The findings revealed that more awareness of SDG four must be achieved in Kwabenya than in Benkum and Presbyterian Boys'.

In addition, there is the need to train more learners in the use of library resources to aid quality education. Training should include the use of print and internet sources. This means the library must have computers connected to the Internet to be used to train learners on how to use library resources for their studies. It is therefore necessary for the library staff to consult with school management to integrate Information Technology Literacy contents which will be used to train every learner in the schools. The training should be centred on SDG generally and SDG four particularly.

Finally, there is the need for management to enhance collections to support teaching and learning. Quality education requires current resources, and as such, new books serve as a motivation for learners to go to the library. Alternatively, SDG four needs a lot of investment for it to come into realisation. Therefore, the government should support libraries in the acquisition of print and electronic collections. It is also important for school management to raise funds for the purchase of current and up-to-date materials to ensure the attainment of SDG four. In addition, the library must have a shelf of related materials on the SDGs displayed to the learners. This is an opportunity for library staff to create awareness of the SDGs. Updated resources, both in print and electronic resources, must be provided to all three libraries to support the teaching and learning of learners in schools.

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