

**LITERACY AND SUSTAINABLE HEALTH PRACTICES AMONG PUPILS IN
CALABAR SOUTH LOCAL GOVERNMENT AREA OF CROSS RIVER STATE,
NIGERIA**

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ABSTRACT: *Literacy has emerged as an approach to achieving the United Nation's sustainable development Goals (SDGs) on good health and wellbeing for all ages and in all societies. It comes as a core purpose of public health having a far reaching agenda to include school children in order to ensure sustainable health practices within populations. However, literacy on health seems to be inadequate and excludes pupils. The situation poses a risk to the actualisation of the objective on good health and wellbeing in developing societies. This survey was conducted to examine the influence of literacy on sustainable health practices among pupils in Calabar South Local Government Area of Cross River State, Nigeria. Leaned onto the social constructivist and social inclusion postulations, three research questions and null hypotheses were formulated to guide the study. 200 respondents were randomly selected from the population within the research location. Data was pooled from participants via the literacy and health practices questionnaire (LHPQ). The Independent t-test statistic was applied to analyse data. Findings showed that functional, interactive and critical literacy have significant influence on sustainable health practices among pupils. The recommendations reflect the adoption of inclusive strategies to enable pupils co-create knowledge and co-partner with adults on health literacy to enhance health practices in the context.*

KEYWORDS: *literacy, sustainable health practices, pupils, Calabar South*

INTRODUCTION

Literacy as a method for pupils to participate in sustainable health practices is a current construct within public health community. It appears as a social empowerment strategy to develop the skills of children to be able to engage in activities that can maintain a healthy living. Literacy is generally about pupils having appropriate information to guide decisions and actions. Literacy arises from learning to read, write, calculate and comprehend given information. As it relates to health it is called 'health literacy'. Health literacy is used in this article synonymously with the independent variable in the research title to ensure some level of clarity in the work. The construct is the degree to which children can access, understand, process and evaluate relevant information to facilitate correct decisions on health practices (D'Eath, Barry & Sixsmith, 2012; Chinn & McCarthy, 2013; Nutbeam, 2015; University of London (UCL) Institute of Health Equity, 2015, World Health Organisation - WHO, 1998, 2016). Literacy, as a means to help pupils evolve sustainable health practices, has also become an issue of interest in Nigeria. A need has emerged to develop strategies to provide a foundation for improving and sustaining health practices for a better condition of life for all, and to reduce health inequalities in the country. Sustainable health practices is a broad concept. Subsuming within the broad definition are issues such as maintenance, continuity,

empowerment and institutionalization of health practices - to benefit pupils including those in Calabar South, Nigeria. All of these work together to ensure comprehensive health practices.

On the other hand, the idea of health is conceptualised by WHO (1948) as a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity. A later view from Ikoh (2014) refers to the notion as the overall wellbeing of a child. These perspectives broadly encapsulate personal and environmental health. Sustainable health practice likely results from literacy on health issues. It points to the performance of pupils as they engage in health practices on account of the level of information available to them about health. In this sense, literacy is critical to the engagement in sustainable health practice by pupils.

The acquisition of literacy is one way to tackle foundational challenges to sustainable health practices in Nigeria. Having the ability to read, calculate and write helps some children to make informed decisions to tackle hunger and diseases. It is a tool by which children develop the knowledge, skills, attitude etc to promote personal health, protect the environment from harm, provide health services to the community and have the confidence to appropriately respond to uncertainties. Literate children have functional capacity to provide health education and services to advantage society. Contributions from children is part of capacity building foundationally for members to be able to perform effective health practices to enhance the quality of living in the community.

LITERATURE REVIEW

The paper is located around the context of the 9th Global conference in Shanghai, China on Health Promotion with an objective on health literacy (WHO, 2016) serving as a knowledge based strategy to achieve the United Nation's sustainable development goals (SDGs) on good health and wellbeing for all ages including children (United Nations, 2016, 2017). Aligned to the vision, the United Nations Educational Scientific and Cultural Organisation – UNESCO (2016) has adopted literacy as a driver of sustainable development in the world. Implicit in this initiative is that there is a provision of opportunities and possibilities for empowerment and engagement of all in literacy skills to be able to enhance health practices in societies. Challenges in public health have occasioned a shift in responsibility empowering pupils to also develop literacy skills through organised education as an approach to contribute to sustainable health practices. The strategy evolved perhaps from the confidence reposed on the ability of school children to perform knowledge-based activities connected to good health in various environments e.g. home, school and community (Nutbeam, 2015). Such knowledge involves language, numerate, written and analytical skills to provide help to different populations on health matters. The ability to offer services is a function of the level of education, or put specifically, the level of literacy of the child to identify a health problem, create a patient-friendly technique and atmosphere to solve it.

Nigeria has integrated health literacy into its educational system. There is a subject called Health and Physical Education in public primary schools in Nigeria (Federal Republic of Nigeria, 2008). In some cases it is referred to as Human Kinetics and Health Education. The contents of this academic course covers relevant topics on health and physical education. The health education aspect enables pupils to learn about personal health, food nutrition, environmental health etc. In the physical education part of the course children have the opportunities to learn the different ways of performing body exercises. For instance, they learn and participate in athletics, soccer, basketball, table tennis, judo and also in leisure games e.g. ludo, scrabble, etc. Acquisition of knowledge of

these issues occurs via contact with teachers during classroom lessons involving writing, reading and practical.

Literacy, in this case, helps the children to access available information and to develop sustainable health practices of same. It implies that illiteracy hinders the child to access information on health issues and the way the person can enhance health practices. Emerging as a sustainability health practice strategy, health literacy also serves to alleviate inequalities in the opportunities available to engage in health related issues to advantage children. The involvement of children portends a radical change that thus opens the space for active participation of all in improving good health in the society. Pupils have the chance to go on a life-long course to generate, assess and communicate information as a measure to foster, enhance and maintain good health in various settings (D'Eath et al, 2012).

The need for children to acquire literacy as a means to ensure sustainable health practice tends to be comprehensive by pursuit. Having children who are literate about health practices gives a broader spectrum for combating diseases and potential injuries to the natural environment etc. This can serve as a response to Parker's (2000) concern that low literacy in a population is associated with a low range of poor health. Treatment of and recovery of illnesses, prevention of diseases are better as children can also benefit from the health information available within the social space. A valuable feature of this approach is that pupils can actively partake in solving health problems by themselves or negotiate health care interventions and relevant programmes (Martensson & Hensing, 2011). Within this is an environment for interaction involving children to address health problems. It is a broadness of interaction that also acknowledges pupils as agents for sustaining good health. This gives a reflection of a review in public health agenda that not only targets the financial aspect of health system, but also the non-financial part.

Allowing children access of participation as a technique to sustain health practices is an idea that challenges the perception about childhood regarding children as having not developed adequate language, cognitive and motor skills to work as functional citizens. A concern can possibly arise to argue that children have yet to develop the organs for effective communication skills. Implicit within this medical perspective is the argument that pupils will misunderstand health information, apply medications incorrectly, misinterpret health information, make wrong decisions on health issues and may not be able to offer proper advice on health matters. Even Martensson & Hensing (2011) have noted in their research that studies on health literacy is less common among specific population group, especially vulnerable people e.g. children. The issue is linked to the perception about childhood. This is resulting in low health literacy among children in Nigeria. Although it is good not to underestimate the abilities of children in this regard, professionals may want to be adherent to professional ethics and so exercise caution in the way health information is communicated to under aged people. Besides, stake holders could raise the issues of reliability, validity and credibility concerning the information children provide to help resolve and maintain good health within populations (*cf.* Chinn & McCarthy, 2013). Even children themselves can express some doubts in their abilities as well. This affects the acceptability of this measure.

Drawing from the work of health literacy researchers in the west e.g. D'Eath et al. (2012), Chinn & McCarthy (2013), Nutbeam (2015) and some colleagues in sub-Saharan Africa like Muhanga & Malungo (2017), the engagement of pupils in health literacy is a measure to scale up the possibilities for creating sustainable health practices in different populations. Its relevance is in view of the cultural diversity in Nigeria and the reach of health information within communities. It helps to distribute basic competencies on health far and wide to reach vulnerable areas. It is an all-inclusive

approach standing as a core of the agenda on public health. That demonstrates the importance of respecting the autonomy of pupils and legitimising their roles to assist in the improvement of health services. These health literacy researchers mentioned above have classified the concept of health literacy into three components: functional (or basic), interactive (or communicative) and critical literacy.

Functional health literacy (FHL) was however first mentioned in Simonds (1974) in a paper entitled *Health education as a social policy*. The formulation of Simonds is that FHL is a way by which people develop basic literacy skills to help promote and improve good health in the society. Parker, Baker, Williams & Nurss (1995) have also documented about the concept. Since then other researchers such as the ones mentioned earlier and Adams, Stocks, Wilson & Hill (2009) have extended it into their work as well as a concept that applies in public health practices. Its connection to the present research is that FHL forms part of basic health education enabling children to acquire relevant skills to actively contribute towards better health throughout life (*cf.* Rocha, Rocha & Lemos, 2017). Pupils show some social vulnerability during developmental periods and they may be exposed to health risks. FHL is a preventive and protective factor that helps children who are risk to better manage personal and ecological health. Given that it is a foundational means of acquiring literacy to sustain health practices, FHL is a continuous process. It cuts across when the child is well, is at risk of getting sick and is sick or is participating in a project to prevent and/or promote community health (Santos, Portella, Scortegagno & dos Santos, 2015). The children, through this mode, are able to make informed decisions about food, feeding habit, physical fitness, body and environment care.

According to Nutbeam (2015), interactive health literacy (IHL) is an advanced skill useful for sustaining health practices. It is a more social aspect of health literacy involving communicating and sharing health information among people. It derives from information gathering, processing and distribution to foster and maintain health practices within populations (Chinn & McCarthy, 2013). Children, in this case, work in interpersonal situations to share mutually beneficial health related information. For instance children can belong to clubs where they meet to discuss about issues on health practices. Also, they can work in great confidence with information providers about good health e.g. professionals and allied workers. IHL is a more distributive aspect of health literacy as the broadness of information arising therefrom can benefit a large population of children. The engagement of children in IHL is also collaborative. Pupils work together in peer coaching situation with an objective on sharing information that enhances and maintains health practices in context.

On the other hand, Sykes, Wills, Rowlands & Popple (2013) have reviewed critical health literacy (CHL) in connection to the debate on health literacy. Sykes et al. formulation on the definition of the concept aligns with that of Nutbeam (2015) that critical literacy is a more advanced level of cognitive and social abilities to access and process information to promote and sustain health. CHL seems to be an emerging issue in the development of health literacy. Being a critical part of health literacy it entails a rigorous and systematic exploration and analysis of data to support good health within populations. In relation to the role of pupils, it implies creating situations where they can engage in critical and reflective thinking about practices that can support sustainable health services. CHL takes pupils beyond the basic competencies of writing and reading on health issues. It motivates them to develop their cognitive skills further to be able to examine the issues of reliability, authenticity etc and use the information to have greater control over events and situations regarding the wellbeing of the individual and community (Chinn & McCarthy, 2013; Nutbeam, 2015). The understanding is that within this notion of CHL pupils can begin to raise critical questions to understand health related issues available to them with the purpose of improving

and sustaining personal and environmental health. Aligning to the work of Nolet (2009), Stibbe & Luna (2009) and Berstschy, Kinzli & Lehmann (2013), cited in Oghenekohwo & Frank-oputu (2017) ones pupils gain literacy that can sustainably support health practices, it is possible to achieve the empowerment within their capacity to (a) approach the society with a critical lens, (b) advance knowledge to others, (c) make informed decisions (d) contribute to rethinking interpersonal, intragroup, intergroup conception of health related matters in environment and society.

Statement of the problem

Literacy provides opportunities for pupils to develop skills to access, understand, process and share information to enhance and sustain health practice within populations. The government, schools and agencies are committing huge resources to enhance her educational system so as to increase, including health literacy within the national universal basic education programme to benefit children in public primary schools.

However, a considerable number of pupils in Calabar South Local Government Area, Nigeria are illiterate and grappling with how to effectively engage in health practices. For instance, some pupils in primary six in the area tend not to be able to read, write and calculate and that affects sustainable health practices among them. Others do not have the ability to communicate or critically examine available information in ways that can support both personal and community health. It poses a risk to the achievement of agenda three of the SDGs on good health and wellbeing in the area. This has raised concerns among educators, parents and government in that regard.

Purpose of the Study

The research examined how literacy influenced sustainable health practices among primary school children in Calabar South LGA of Cross River State, Nigeria. It particularly looked at the way:

1. Functional literacy influences sustainable health practices among pupils;
2. Interactive literacy influences sustainable health practices among pupils; and
3. Critical literacy influences sustainable health practices among pupils.

Research Questions

These research questions were developed for the study:

1. How does functional literacy influence sustainable health practices among pupils?
2. How does interactive literacy influence sustainable health practices among pupils?
3. How does critical literacy influence sustainable health practices among pupils?

RESEARCH HYPOTHESES

The following null hypotheses were formulated to guide the study:

1. Functional literacy has no significant influence on sustainable health practices among pupils.
2. Interactive literacy does not significantly influence sustainable health practices among pupils.
3. Critical literacy does not significantly influence sustainable health practices among pupils.

RESEARCH METHODOLOGY

The focus of the research suggests an application of quantitative measures. The quantitative methodology was consequently adopted as a suitable approach for data generation and analysis, underpinned by the empiricist/positivist paradigm (Creswell, 2003; Baxter & Babbie, 2004; Muijs, 2004; Fraenkel & Wallen, 2006; Williams, 2007; Isangedighi, 2011) to be able to test stated research hypotheses. It enabled a standardised procedure of generating numerical data and performing statistical analyses of same to achieve an objective form of reporting the findings. Such an empirical method looked at how participants construct meanings about literacy and sustainable health practices among pupils within the research site. The idea of 'construction of knowledge' is connected to the constructivist postulation emanating from the work of Piaget (1970) and Vygotsky (1978) and this formulation is in consequence used as a theoretical framework of the study.

Constructivism is the notion that knowledge does not exist independent of the learner; rather the learner constructs knowledge, morality and value via active engagement with the events that occur within the person's sociocultural context (Vrasidas, 2000). Some assumptions of constructivism, according to Jonassen (1992a), Cobb (1994), Philips (1995) and Vrasidas (2000) is that symbols such as literacy skills are products of culture and they are used to construct reality including sustainable health practices; human thought is imaginative and develops out of perception, sensory experiences, and social interaction. Pupils, for example, are able to perform sustainable health practices by actively engaging in reading, calculating and writing to make meanings from the available information on health issues, sometimes they do this in collaboration with capable others e.g. professionals, parents, siblings, teachers, peers etc. These agents contribute to initiate elementary processes of learning about literacy to favour sustainable health practices. However, the interpretation the children make from the processes determines how they are able to apply the knowledge to execute sustainable health practices within the context. A broader theoretical underpinning of the research is the notion of social inclusion as defined by World Bank (2013) and supported by Woodcock (2013). Social inclusion is a formulation that generally abhors institutional exclusion, thus provides opportunities for the inclusion of all people regardless of background to actively make contributions to social reforms. By extension the postulation is about the inclusion of children in the public health agenda to work as co-partners with adults to develop literacy to be able to also improve and sustain health practices.

However, given that the general research strategy is quantitative, a survey (Creswell, 2003) was consequently preferred as an appropriate research design to facilitate examination of the issue using paper and pen questionnaire (Gable, 1994; Singleton & Straits, 2002; Muijs, 2004) to collect numerical data from participants belonging to different backgrounds in the research location. A total of 3,523 participants were in 24 state primary schools in the research location (Cross River State Universal Basic Education Board - CRSUBEB, 2015). Participants were primary age children including boys and girls in primary (grade) 6. The involvement of pupils was informed by the overall research title focusing on primary age children in relation to how literacy skills enabled them engage in sustainable health practices. Primary 6 pupils are aged between 11 and 12+ years. Quite a number of children of this age and stage can read and write in English, and as such are also likely to provide plausible information to support the research.

The author contacted staff of CRSUBEB to use their official records to help identify 10 public primary schools in Calabar South to participate in the study. Real names of the schools were pseudomysed for ethical consideration. 200 pupils, representing over five per cent of the total population, drawn from 10 public primary schools were recruited via a simple random sampling

procedure (Muijs, 2004; Teddlie & Yu, 2007). 20 pupils, comprising 10 boys and 10 girls, were selected from each school. The sample was drawn so as to be representative of the 10 schools and genders to which the participants belonged.

The literacy and health practices questionnaire (LHPQ) was the source employed to generate quantitative data from the research respondents. Participants within the research site are familiar with questionnaires. LHPQ contained two main sections: A: bio-data, including participant age, gender and name of school, and B: response section. Section B was further split into three subsections to cover stated research hypotheses. 15 question items were developed and further distributed so that the subsections had five questions each. Since the subjects were pupils, it raised concerns about their levels of ability to complete the questionnaire. As such, the items in the questionnaire were worded in a simple and clear language so that the respondents could read and understand. Respondents were required to answer either 'Yes' or 'No' to indicate their agreement to each of the items. This strategy was to make it easy for them to complete the questionnaire to affect reliability of data.

The author is research active. After carefully designing the LHPQ, it was passed onto psychometric experts to check for content validity. The tool was then trialled with 20 pupils including girls and boys in one public primary school within the research site. Data generated from the pilot study was subjected to reliability test via the Cronbach alpha reliability coefficient. The researchers were unfamiliar with digital analysis of data via the predictive analytic software (PASW). Data was analysed manually. Cronbach alpha reliability coefficient gave an output of .788 and a range of < 1. With this result LHPQ passed the reliability test and therefore was used as a suitable data source for the primary research. Findings of the study were being generalised to the entire research population.

In line with ethical protocols, officials of CRSUBEB, school heads, selected pupils and their class teachers were informed about the research to avoid conducting the study covertly. Also, access to data and participants was negotiated with these gatekeepers. The participants were informed about their roles and rights during the research so as to avoid participation by coercion. Furthermore, participants were assured of the confidentiality of their data and anonymity of their names and that of their schools in line with data protection policy. Consequently, their identities were covered in pseudonyms.

The word *influence* that occurred in the research hypotheses stated above implied the adoption of the independent t-test as an appropriate statistic to analyse data. T-test was consequently employed to analyse data collected for each of the three research hypotheses at .05 probability level. Summary of data analysis is presented in tables 1, 2 and 3:

Table 1: independent t-test analysis of functional literacy and sustainable health practices among pupils.

Variable	N	\bar{x}	SD	df	t^{cal}	t^{crit}	P
Functional literacy	200	14.01	6.18	198	5.81	1.86	<.05
Sustainable health practices among pupils	200	12.04	5.45				

Confidence interval = 95%

From table 1, t^{cal} (5.81) was higher than t^{crit} ($t = 1.86$; $df = 198$; $CI = 95\%$; $P < .05$). The null hypothesis that stated that functional literacy has no significant influence on sustainable health practices among pupils is overruled; alternative hypothesis is retained. It suggests that functional literacy has significant influence on sustainable health practices among pupils. It means that pupils that are functionally literate are likely to engage in sustainable health practices.

Table 2: independent t-test analysis of interactive literacy and sustainable health practices among pupils.

Variable	N	\bar{x}	SD	df	t^{cal}	t^{crit}	P
Interactive literacy	200	10.13	5.23	198	5.04	1.86	<.05
Sustainable health practices among pupils	200	12.04	4.84				

Confidence interval = 95%

Data on table 2 indicated that t^{cal} (5.04) was higher than t^{crit} ($t = 1.86$; $df = 198$; $CI = 95\%$; $P < .05$). The null hypothesis that stated that interactive literacy does not significantly influence sustainable health practices among pupils is rejected; alternative hypothesis is upheld. It suggests that interactive (or communicative) literacy has significant influence on sustainable health practices among pupils. It means that pupils that have communicative literacy are likely to engage in sustainable health practices.

Table 3: independent t-test analysis of critical literacy and sustainable health practices among pupils.

Variable	N	\bar{x}	SD	df	t^{cal}	t^{crit}	P
Critical literacy	200	10.60	5.32	198	5.10	1.86	<.05
Sustainable health practices among pupils	200	9.76	4.88				

Confidence interval = 95%

Data on table 3 illustrates that t^{cal} (5.10) was greater than t^{crit} ($t = 1.86$; $df = 198$; $CI = 95\%$; $P < .05$). The null hypothesis that stated that critical literacy does not significantly influence sustainable health practices among pupils is jettisoned; alternative hypothesis is retained. It suggests that critical literacy has significant influence on sustainable health practices among pupils. This surmises that pupils that have critical literacy are likely to engage in sustainable health practices.

SUMMARY OF FINDINGS

Results obtained from data analysis as shown on the tables above are as follows:

1. Functional literacy has significant influence on sustainable health practices among pupils ($t^{cal} = 5.81$; $t^{crit} = 1.86$; $df = 198$; $CI = 95\%$; $P < .05$).
2. Interactive literacy has significant influence on sustainable health practices among pupils ($t^{cal} = 5.04$; $t^{crit} = 1.86$; $df = 198$; $CI = 95\%$; $P < .05$).
3. Critical literacy has significant influence on sustainable health practices among pupils ($t^{cal} = 5.10$; $t^{crit} = 1.86$; $df = 198$; $CI = 95\%$; $P < .05$).

DISCUSSION OF FINDINGS

The outcome of data analysis for the first hypothesis suggests that functional literacy has significant influence on sustainable health practices among pupils. Children who possess the basic literacy abilities of reading, writing and calculating are likely to perform active participation in activities that can improve and maintain good health for both personal and community gains in Calabar South. The result supports Rocha, Rocha & Lemos, (2017) argument that functional literacy constitutes an aspect of health education by which children are enabled to develop primordial skills to contribute to better life. This aspect of literacy as stated earlier has a continuous process lasting a life time. According to Santos, Portella, Scortegagno & dos Santos (2015) it goes from when the child is well, is at risk of getting sick and is sick or is participating in projects to prevent and/or promote community health. Functional literacy is a skill that helps children make informed decisions to enhance and sustain personal and environmental health activities.

Result of data analysis for the second hypothesis indicates that interactive literacy has significant influence on sustainable health practices among pupils. Interactive literacy is a way of communicating ideas and information to help promote good health within populations in the context. It is a more social aspect of health literacy. Children are social beings. They like to play and talk with one another in and outside the school. Drawing from the argument of Chinn & McCarthy (2013), interactive literacy implies a situation where children collaborate with others including peers, parents, siblings, teachers and professionals to share ideas targeted at improving the wellbeing of the society, including Calabar south. Information on health practices, in this sense, is distributive, having a far reach within populations. According to Nutbeam (2015), it is an advanced skill in sustaining health practices. It is likely to help children advance their basic skills as to be able to assist in providing health services that are sustainable.

Findings from data analysis for the third hypothesis shows that critical literacy has significant influence on sustainable health practices among children. This aspect of literacy spurs the children to push themselves further more to develop skills for critical thinking to be able to have a deeper understanding of available information on health. It involves a thorough and rigorous exercise where pupils can have greater control over events and situations regarding the health of the individual and community (Chinn & McCarthy, 2013; Nutbeam, 2015). Pupils who are able to demonstrate critical literacy can seek to ascertain the evidence, source of the evidence, whether the evidence is credible

or weak in connection to health practices. Opportunities for expressing critical literacy is a recognition of the abilities of children to co-create knowledge in order to assist to foster and sustain health programmes. It deviates from ideas and practices that underestimate the work of children in this respect as partners in society development.

Recommendations

The following recommendations were made to further bolster the role of children to improve and sustain health practices in the context:

1. Health literacy needs to be integrated into the contents of Health Education for pupils to develop sustainable health practices skills;
2. Basic Health literacy clubs should be formed in primary schools to provide a platform for pupils to meet with peers, professionals, governments etc to discuss and share ideas about health practices that can improve and sustain health and wellbeing within their environments;
3. Learner voice has to be given legitimacy in the context as an approach to democratise schooling in primary schools so that relevant authorities can recognise and value the views of pupils about the engagement of pupils on improvement and sustainability of health practices;
4. There should be a basic health literacy bulletin to serve as a print media for the public to read published articles from pupils on strategies to enhance and sustain health practices.

These suggestions point at the adoption of inclusive strategies so as to welcome the roles of children to co-create knowledge and co-partner with adults to develop measures to improve and sustain public health. The application of inclusive approaches is about removing inequities, thus widen access and use of information to enhance and sustain health practices to favour pupils. Detailed analyses about ensuring equitable access of all to social services via inclusive practices is well documented in UNESCO (1990), Peters (2004), Dei (2005), Ainscow, Dyson & Kerr (2006), Ajuwon, (2008), It aligns with the notion of social inclusion contained in WHO (2013). From this postulation, it is implicit that the implementation of public health services is inadequately serving the needs of vulnerable people e.g. children, within the population in the context. Going forward, inclusive health literacy programmes tend to provide the opportunity for change. This is likely to create an enabling environment for school children to also develop health literacy skills to make contributions in ways that can facilitate achievement of the UN's SDGs on good health and wellbeing for all in developing societies.

CONCLUSION

From the findings above, it is indicative that literacy significantly influences sustainable health practices among primary age children in the research location. Health literacy is about creating a knowledge based economy where information on health is both accessible and co-created by a wider population, including school children to promote and maintain practices that support good health and wellbeing in communities. Literate pupils, for example, have the possibility of engagement, empowerment and contribution to raise health practices to benefit individuals and the larger society. This initiative is a radical change from a practice which is dominantly performed by adults to one that is inclusive, welcoming the active participation of children as partners with adults to improve the health system in developing societies. It is a far-reaching approach that goes deeper into the grass roots to also empower and engage minors to functionally provide foundational basis for sustaining health activities in societies.

REFERENCES

- Adams, R. J. Stocks, N. P., Wilson, D. H., Hill, C. L. (2009). Health literacy: a new concept for general practice? *Australian Family Physician*, 38(3), 144-147.
- Ainscow, M., Dyson, A. & Kerr, K. (2006). *Equity in education: mapping the territory: The first annual report of the Centre for Equity in Education*. Manchester, UK: University of Manchester, Centre for Equity in Education.
- Ajuwon, P. M. (2008). Inclusive education for students with disabilities in Nigeria: benefits, challenges and policy implications. *International Journal of Special Education*, 23(3).
- Berstschy, F., Kinzli, C. & Lehmann, M. (2013). Teacher's competencies for the implementation of educational offers in the field of education for sustainable development. *Sustainability*, 5, 5067-5080.
- Baxter, L. A. & Babbie, E. R. (2004). *The basics of communication research*. New York: Wadsworth/Thomson.
- Chinn, D. & McCarthy, C. (2013). All aspects of health literacy scale (AAHLS): developing a tool to measure functional, communicative and critical health literacy in primary healthcare settings. *Patient Education and Counselling*, 90, 247-253.
- Cobb, P. (1994). Where is the mind? Constructivist and socialcultural perspectives on mathematical development. *Educational Researcher*, 23(7), 13-20.
- Creswell, J. (2003). *Research design: Qualitative, quantitative and mixed methods approaches (2nd ed.)*. Thousand Oaks, CA: SAGE Publications.
- Cross River State Universal Basic Education Board, Calabar (2015). *School enrolment and staff disposition*.
- D'Eath, M., Barry, M. M., Sixsmith, J. (2012). *Rapid evidence review of interventions for improving health literacy*. Stockholm: ECDC
- Dei, G. J. S. (2005). The challenge of inclusive schooling in Africa: a Ghanaian case study. *Comparative Education*, 41(3): 267-89.
- Federal Republic of Nigeria (2008). *National Policy on Education*. Abuja: National Educational and Research Development.
- Fraenkel, J. R. & Wallen, N. E. (2006). *How to design and evaluate research in education*. New York: McGraw-Hill.
- Gable, G. G. (1994). Integrating case study and survey research methods: an example in information system. *European Journal of Information Systems*, 3(2).
- Ikoh, N. F. (2004). Language and reading in early childhood education. In Obinaju, Q. I. (Ed.), *early childhood education. Theory and practice*. Calabar: BON Universal Ltd.
- Isangedighi, A. J. (2011). *Essentials of research and statistics in Education and Social Sciences*. Calabar: Eti Nwa and Associates.
- Jonassen, D. H. (1992a). Objectivism versus constructivism: do we need a new philosophical Phillips, paradigm? *Educational Technology Research and Development*, 39(3): 5-14.
- Martensson, L. & Hensing, G. (2011). Health literacy: a heterogeneous phenomenon: a literature review. *Scandinavian Journal of Caring Sciences*.
- Muhanga, M. I. & Malungo, J. R. S. (2017). The what, why and how of health literacy: a systematic review of literature. *International Journal of Health*, 5(2), 107-114.
- Muijs, D. (2004). *Doing quantitative research in Education with SPSS*. London: Sage Publications.
- Nutbeam, D. (2015). *Defining, measuring and improving health literacy*. *HEP*, 42(4).
- Obioha, U. P. (2010). Medical practice, human experimentation and the sanctity of life. *Sophia*, 12(2).

- Oghenekohwo, J. E. & Frank-oputu, E. A. (2017). Literacy education and sustainable development in developing societies. *International Journal of Educational and Literacy Studies*, 5(2).
- Parker, R. M. (2000). Health literacy: a challenge for American patients and their health care providers. *Health Promotion International*, 15, 277–291.
- Parker, R. M., Baker, D. W., Williams, M. V., & Nurss, J. R. (1995). The test of functional health literacy in adults: A new instrument for measuring patients' literacy skills. *Journal of General Internal Medicine*, 10, 537-541.
- Peters. S. (2004). *Inclusive education: an EFA strategy for all children*. Washington, DC: World Bank.
- Phillips, D. C. (1995). The good, the bad, and the ugly: the many faces of constructivism. *Educational Research*, 24(7), 5-12.
- Piaget, J. (1970). *Genetic epistemology*. New York: Columbia University Press.
- Rocha, P. C., Rocha, D. C. & Lemos, S. M. A. (2017). Functional health literacy and quality of life of high-school adolescents in state school in Belo Horizonte. *CoDAS*, 29(4):e20160208 DOI: 10.1590/2317-1782/20172016208
- Santos, M. I. P. O., Portella, M. R., Scortegagno, H. M. & dos Santos, P. C. M. (2015). Functional health literacy from the perspective of gerontological nursing: an integrative literature review. *Rev. BRas. Geriatr. Gerontol., Rio de Janeiro*, 18(3), 651-664
- Simonds, S.K. (1974). Health education as social policy. *Health Education Monograph*, 2(1) (Suppl), 1-10.
- Singleton, R. A. & Straits, B. C. (2002). Survey interviewing. In Gubriem, J. F. & Holstein, J. A. (Eds.), *Handbook of interview research: Context and method* (pp. 59-82). Thousand Oaks.
- Stibbe, A. & Luna, H. (2009). Introduction. In Stibbe, A, & Luna, H. (Eds.), *The Handbook of Sustainability Literacy Skills for a Changing World*. Cornwall, UK: Green Books Ltd.
- Sykes, S., Wills, J., Rowlands, G. & Popple, K. (2013). Understanding critical health literacy: a concept analysis. *BMC Public Health*, 13(150).
- Teddlie, C. & Yu, F. (2007). Mixed methods sampling: a typology with examples. *Journal of Mixed Methods Research*, 1(7).
- UNESCO (1990). *World declaration on education for all and framework for action to meet basic learning skills*. New York: UNESCO.
- UNESCO (2016). *Global Education Monitoring Report. Education for People and Planet: Creating Sustainable Futures for All*. UNESCO: Paris.
- United Nations (2016). *The sustainable development goals report*. United Nations: New York. Retrieved from <http://ggim.un.org/documents/The%20Sustainable%20Development%20Goals%20Report%202016.pdf>
- United Nations (2017). *The sustainable development goals report*. United Nations: New York. Retrieved from <https://sdgactioncampaign.org/wp-content/uploads/2017/07/TheSustainableDevelopmentGoalsReport2017.pdf>
- University College, London (2015). Local actions on health inequalities. Improving health literacy to reduce health inequalities. *Practice Resource Summary*. Public Health England.
- Vrasidas, C. (2000). Constructivism versus objectivism: implications for interaction, course design, and evaluation in distance education. *International Journal of Educational*

Telecommunication, 6(4), 7.

Vygotsky, L. S. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.

Woodcock, M. (2013). *Social inclusion: its significance for development theory, research and policy*. World Bank and Harvard University. Paris: UNESCO.

World Bank (2013). *Inclusion Matters: The Foundation for Shared Prosperity*. Washington, DC: World Bank. ISBN 978-1-4648-0010-8.

World Health Organization (1998). *Health promotion glossary*. Geneva: WHO.