HOW READY IS NIGERIA FOR 2030? EXPLORING AWARENESS AND KNOWLEDGE OF THE SDGS AMONG SECONDARY SCHOOL TEACHERS IN ISEYIN, OYO STATE

Adeniyi Michael ADEDUYIGBE,
University of Ibadan
adeniyiadeduyigbe@gmail.com

Abstract: *This study investigates the awareness and knowledge of the Sustainable Development Goals (SDGs) among secondary school teachers in Iseyin Local Government Area of Oyo State, Nigeria. Grounded in the global 2030 Agenda for Sustainable Development, the research adopts a descriptive survey design to evaluate how well-equipped teachers are to integrate sustainability concepts into classroom instruction. A total of 100 teachers from ten public secondary schools were selected using stratified and simple random sampling techniques. Data were collected through a structured questionnaire and analyzed using frequency counts, mean scores, and standard deviations. Findings reveal that while teachers demonstrate a relatively high level of general awareness of the SDGs, gaps remain in their practical knowledge and exposure to SDG-related training and resources. The study underscores the need for targeted professional development, curriculum enhancement, and policy support to strengthen sustainability education at the grassroots level. Implications for educational stakeholders and future research are discussed.*

Keywords: *sustainable development goals (SDGs); teacher awareness of SDGs; education for sustainable development (ESD); 2030 agenda; sustainability education.*

Introduction

Increased demands have been placed on the development of our environment and society, necessitating the need for Sustainable Development Goals (SDGs) that will enhance societal progress. The United Nations defined sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (United Nations, 2015, as cited in Fischer et al., 2022; Gómez-Gómez & García-Lázaro, 2023). Thus, sustainable development encompasses environmental concerns

and economic, social, and cultural dimensions (Fischer et al., 2022; Oltra-Badenes et al., 2023). Sustainable development is more complex than general development, particularly in addressing the needs of the poorest and adapting to modern societal demands (Fischer et al., 2022; Nasim et al., 2023). The dimensions and indicators of sustainable development are interwoven, reflecting both qualitative and quantitative aspects and highlighting the importance of all societal, environmental, and human resources. The three main dimensions—environmental, economic, and social—are widely recognized as the core of sustainable development (Peedikayil et al., 2023; Oltra-Badenes et al., 2023).

Knowledge obtained through education is vital to achieving sustainable development, as it fosters a sense of responsibility among citizens to nurture and sustain societal growth (Bourn et al., 2017; Gómez-Gómez & García-Lázaro, 2023). Integrating education, training, and policies to promote sustainability is broadly advocated (Fischer et al., 2022; Oltra-Badenes et al., 2023). Nigeria has adopted and implemented the SDGs through notable initiatives like the National Social Investment Program (NSIP) and efforts to align national education policy with SDG indicators. For sustainable development to be effectively achieved, education must play a central role. National and international summits have emphasized the need for reorienting education systems as a key to sustainability (Rieckmann, 2018; Fischer et al., 2022; Gómez-Gómez & García-Lázaro, 2023).

Ignorance and lack of relevant education continue to contribute to Nigeria's development challenges, highlighting the need for compulsory education, curriculum reforms to include sustainability education, and the establishment of monitoring bodies (Bourn et al., 2017; Khalid et al., 2022; Nasim et al., 2023). Teachers, as key stakeholders, are responsible for ensuring that students acquire values and skills aligned with education's goals. Teachers are described as role models and agents of change, contributing to social development and character building (Fischer et al., 2022; Peedikayil et al., 2023; Gómez-Gómez & García-Lázaro, 2023). Globally, several countries and institutions have taken steps to integrate SDGs into their education systems, and university-led initiatives in Sub-Saharan Africa are emerging (Fischer et al., 2022; Oltra-Badenes et al., 2023).

Despite these efforts and Nigeria's formal adoption of the SDGs, studies have shown that many teachers are not adequately aware of the goals or how to implement them in classroom settings (Khalid et al., 2022; Gómez-Gómez & García-Lázaro, 2023; Nasim et al., 2023). Teacher awareness and knowledge are critical for successful SDG integration in schools. Teacher awareness of SDGs influences both

their teaching methods used in the classroom and the creation of good school environments that promote SDGs (Bascopé et al., 2019; Khalid et al., 2022; Peedikayil et al., 2023; Gómez-Gómez & García-Lázaro, 2023). Therefore, this study seeks to investigate the awareness and knowledge of teachers regarding sustainable development in secondary schools in Iseyin Local Government Area of Oyo State. This is crucial, given the teacher's central role in shaping future generations and the apparent knowledge gap that may hinder SDG integration into education.

Justification for the Study

Sustainable development has become a global priority, with countries, including Nigeria, committing to the United Nations' 2030 Agenda (United Nations, 2015, 2019, as cited in Fischer et al., 2022; Gómez-Gómez & García-Lázaro, 2023). Education has been identified as a powerful driver of the SDGs, capable of raising awareness, fostering critical thinking, and promoting behavior aligned with sustainability (Rieckmann, 2018; Bascopé et al., 2019; Fischer et al., 2022; Oltra-Badenes et al., 2023). Teachers play a vital role in transmitting the knowledge, skills, and attitudes needed to achieve this transformation (Bourn et al., 2017; Peedikayil et al., 2023; Gómez-Gómez & García-Lázaro, 2023).

While Nigeria has launched several programs to support the SDGs, such as policy realignments and investment initiatives, there is a significant gap in implementation at the grassroots level, particularly in semi-urban and rural communities (Khalid et al., 2022; Nasim et al., 2023). In places like Iseyin Local Government Area, empirical data on teachers' SDGs awareness and knowledge remains limited. This lack of data is an issue, as teachers' understanding and motivation are essential to effectively embed sustainability principles in teaching and learning (Fischer et al., 2022; Oltra-Badenes et al., 2023; Gómez-Gómez & García-Lázaro, 2023).

Furthermore, research shows that many Nigerian teachers are not adequately trained on sustainable development or equipped to apply it pedagogically (Khalid et al., 2022; Nasim et al., 2023). Without such awareness, efforts to build student competencies in sustainability and global citizenship may be undermined (Fischer et al., 2022; Bourn et al., 2017; Gómez-Gómez & García-Lázaro, 2023). By examining the awareness and knowledge of SDGs among secondary school teachers in Iseyin, this study aims to generate evidence that informs policy, professional development, and curriculum design (Rieckmann, 2018; Bascopé et al., 2019; Oltra-Badenes et al., 2023). Findings from this study will also be useful to stakeholders such as school administrators,

local education authorities, and NGOs in crafting targeted interventions that promote SDG literacy among educators (Fischer et al., 2022; Khalid et al., 2022; González Bravo & Vivar Quintar, 2022). Ultimately, the study contributes to Nigeria's national efforts toward building a more informed, responsible, and sustainable society (United Nations, 2019; Bourn et al., 2017; Nasim et al., 2023).

Research Questions

1. What is the level of teachers' awareness of the concept of Sustainable Development?
2. What is the level of teachers' knowledge about the concept of Sustainable Development?

Methodology

Research Design

The study adopted descriptive survey design. Descriptive Survey design is used for this study because it aims at collecting data and describing them in a systematic manner, the characteristics features or facts about a given population (Creswell and Cresswell 2018). The descriptive research design was therefore suitable to ascertain the level of awareness and knowledge of sustainable development among teachers in Iseyin Local Government, Oyo State, Nigeria (Qualtrics 2020).

Sampling and Sampling Technique

The sample of the study comprised ten (10) public secondary schools selected across the Iseyin Local Government Area of Oyo State, Nigeria. The sampling technique used for selecting the schools was stratified random sampling, ensuring that schools were chosen to reflect a fair representation across the local government area. From the selected schools, simple random sampling was employed to select the respondents. Specifically, ten (10) teachers were randomly selected from each of the ten schools, making a total of one hundred (100) teachers as the study population. Simple random sampling gives all elements in the population an equal chance of being selected, thereby ensuring that every teacher in each selected school has the same probability of participating in the study. (Creswell and Cresswell 2018)

Research Instrument

The research Instrument used for this study was a structured questionnaire. The questionnaire was divided into three (3) sections. Section A of the questionnaire focuses on the demographic information of the respondents, such as gender, qualification, etc. Section B focuses on questions that seek to measure teachers' level of awareness of sustainable development; it consists of 20 items on a four-point Likert

scale of Strongly Agree, Agree, Disagree, and Strongly Disagree. Section C consists of questions that seek the opinion of respondents on their knowledge of sustainable development, It has 20 items on four Likert scale of Strongly Agree, Agree, Disagree, and Strongly Disagree

Validity and Reliability of the Instrument

To determine the content and face validity of the questionnaire, the questionnaire was presented to experts in the field of the study, who made sure that the construct of the instrument measures what it is intended to measure in terms of clarity, precision, and comprehension. Corrections were made regarding the feedback. The questionnaire was administered to a small sample of teachers who were not part of the study sample to determine the reliability. Data collected were analyzed using Cronbach's Alpha, and the result yielded 0.85 coefficients, which implies that the instrument is fit for the study.

Method of data analysis

Data collected were analyzed using frequency count, percentage score, mean, and standard deviation. Relevant tables were used to present the results.

Result

Research Question 1: What is the level of teacher awareness of the concept of Sustainable Development?

Table 1: Teachers' Awareness of the Sustainable Development Goals (SDGs)

S/N	ITEMS	SA	A	D	SD	Mean	Std. D
1	Have you heard about the Sustainable Development Goals (SDGs)	32 (32.0%)	64 (64.0%)	2 (2.0%)	2 (2.0%)	3.26	0.59
2	I have attended conferences and workshops about the SDGs	19 (19.0%)	44 (44.0%)	28 (28.0%)	9 (9.0%)	2.73	0.88
3	The SDGs are meant to end in the year 2030	29 (29.0%)	38 (38.0%)	17 (17.0%)	16 (16.0%)	2.80	1.04

4	SDGs should be incorporated into all levels of education, especially secondary schools.	42 (42.0 %)	53 (53.0 %)	4 (4.0%)	1 (1.0%)	3.36	0.61
5	The successful implementation of SDGs depends on teachers' ability to teach the sustainability concept.	42 (42.0 %)	49 (49.0 %)	4 (4.0%)	5 (5.0%)	3.28	0.77
6	Reducing water consumption is required to achieve the SDGs	22 (22.0 %)	33 (33.0 %)	27 (27.0 %)	18 (18.0 %)	2.59	1.03
7	Education on self-defence against natural disasters is essential for sustainable development.	58 (58.0 %)	39 (39.0 %)	3 (3.0%)	0 (0%)	3.55	0.56
8	Sustainable development requires maintaining the diversity of living things (preserving biological diversity).	36 (36.0 %)	52 (52.0 %)	11 (11.0 %)	1 (1.0%)	3.23	0.68
9	Integration of	38	56	5	1	3.31	0.6

	SDGs into the school curriculum will enhance their implementation.	(38.0%)	(56.0%)	(5.0%)	(1.0%)		2
10	Sustainable development requires a culture in which disputes are settled amicably through dialogue.	44 (44.0%)	46 (46.0%)	5 (5.0%)	5 (5.0%)	3.29	0.78
11	SDGs will ensure a healthy life and promote well-being for all at all ages	45 (45.0%)	49 (49.0%)	3 (3.0%)	3 (3.0%)	3.36	0.69
12	The school has a significant impact on achieving the SDGs.	37 (37.0%)	60 (60.0%)	2 (2.0%)	1 (1.0%)	3.33	0.57
13	In order to promote sustainable development, businesses must treat their suppliers, customers, and employees with respect.	39 (39.0%)	48 (48.0%)	13 (13.0%)	0 (0%)	3.26	0.68
14	Fair distribution of	33	57	6	4	3.19	0.72

	products and services among people worldwide is necessary for sustainable growth.	(33.0 %)	(57.0 %)	(6.0%)	(4.0%)		
15	Good education must be available to everyone in the globe in order to achieve sustainable development.	40 (40.0 %)	52 (52.0 %)	7 (7.0%)	1 (1.0%)	3.31	0.6 5
16	I know what the SDGs are all about	29 (29.0 %)	58 (58.0 %)	10 (10.0 %)	3 (3.0%)	3.13	0.7 1
17	I have heard about the importance of peace, justice, and strong institutions towards achieving SDGs.	44 (44.0 %)	50 (50.0 %)	5 (5.0%)	1 (1.0%)	3.37	0.6 3
18	Have you ever engaged in discussions or activities related to sustainable development in your community	27 (27.0 %)	44 (44.0 %)	25 (25.0 %)	4 (4.0%)	2.94	0.8 3
19	Are you familiar with the conservation	29 (29.0 %)	50 (50.0 %)	16 (16.0 %)	5 (5.0%)	3.03	0.8 1

	of life on land and underwater ecosystems for sustainable development?						
20	Do you know the importance of inclusive and equitable quality education in achieving SDGs?	35 (35.0 %)	53 (53.0 %)	11 (11.0 %)	1 (1.0%)	3.22	0.68
Weighted average= 3.18							

Table 1 presents the frequency distribution of teachers' awareness of the SDGs. The highest-rated item was the need to educate people on how to safeguard themselves from natural disasters ($\bar{x}$ = 3.55), followed closely by awareness of peace, justice, and strong institutions ($\bar{x}$ = 3.37), and the integration of SDGs into all educational levels, especially secondary schools ($\bar{x}$ = 3.36). Other highly rated items are the role of schools in achieving the SDGs ($\bar{x}$ = 3.33) and the significance of inclusive education ($\bar{x}$ = 3.31). The lowest-rated items were attendance at SDG-related conferences and workshops ($\bar{x}$ = 2.73) and awareness of water conservation as a sustainability strategy ($\bar{x}$ = 2.59). With an overall weighted mean of 3.18, above the benchmark of 2.50, it can be concluded that the level of teacher awareness of the SDGs is relatively high.

Research question 2: What is the level of teacher knowledge about the concept of Sustainable Development?

Table 2: Teachers' Perceptions and Pedagogical Practices Toward Sustainable Development Education

ITEMS	**SA**	**A**	**D**	**SD**	**Mean**	**Std D**
Teachers should have a solid understanding of the economy, environment and society as the	57 (57.0%)	43 (43%)	0 (0%)	0 (0%)	3.57	0.49

key principles of sustainable development.						
Teachers need to incorporate sustainability concepts into their lesson plans across various subjects.	33 (33.0%)	57 (57.0%)	10 (10%)	0 (0%)	3.23	0.62
Teachers should address global issues related to sustainability through their teaching.	41 (41.0%)	57 (57.0%)	2 (2.0%)	0 (0%)	3.39	0.53
Innovative teaching strategies can help educators engage students in sustainable development topics.	39 (39.0%)	59 (59.0%)	2 (2.0%)	0 (0%)	3.37	0.53
I can effectively assess students' understanding of sustainable development concepts using the necessary assessment techniques.	28 (28.0%)	70 (70.0%)	2 (2.0%)	0 (0%)	3.26	0.49
Collaboration among teachers can lead to a more comprehensive approach to teaching sustainable	49 (49.0%)	47 (47.0%)	3 (3.0%)	1 (1.0%)	3.44	0.61

development.						
The three facets of social, economic, and environmental challenges should be covered by educators in their sustainable development classes.	41 (41.0%)	56 (56.0%)	3 (3.0%)	0 (0%)	3.38	0.55
Teachers can empower students to take action on sustainability issues within their school and community.	39 (39.0%)	52 (52.0%)	7 (7.0%)	2 (2.0%)	3.28	0.68
Differentiation of instruction can help teachers meet the diverse learning needs of students when teaching about sustainable development.	34 (34.0%)	58 (58.0%)	4 (4.0%)	4 (4.0%)	3.22	0.71
School administrators should support and promote teachers' efforts in teaching about sustainable development.	47 (47.0%)	49 (49.0%)	4 (4.0%)	0 (0%)	3.43	0.57
Teachers should be aware of common misconceptions about sustainable development.	42 (42.0%)	51 (51%)	7 (7.0%)	0 (0%)	3.35	0.61

Teachers may face challenges when integrating sustainability into their teaching practices.	34 (34.0%)	59 (59.0%)	6 (6.0%)	1 (1.0%)	3.26	0.61
Real-world examples of schools successfully implementing sustainable practices can inspire teachers	41 (41.0%)	49 (49.0%)	8 (8.0%)	2 (2.0%)	3.29	0.70
There are ample resources available for teachers to enhance their knowledge of sustainable development	15 (15.0%)	58 (58%)	15 (15%)	12 (12%)	2.76	0.85
Incorporating local or indigenous knowledge can enrich lessons on sustainable development for teachers.	29 (29.0%)	61 (61.0%)	6 (6.0%)	4 (4.0%)	3.15	0.70
I believe that sustainable development education should be a priority in teacher training programs.	39 (39.0%)	56 (56.0%)	3 (3.0%)	2 (2.0%)	3.32	0.63
Greenhouse gas emissions can be decreased by using more renewable	24 (24.0%)	55 (55.0%)	18 (18%)	3 (3%)	3.00	0.74

resources.						
Social justice, economic expansion, and environmental preservation are essential elements of sustainable development.	51 (51.0%)	41 (41.0%)	8 (8.0%)	0 (0%)	3.43	0.64
I am aware that by 2030, the SDGs are supposed to be accomplished.	33 (33.0%)	55 (55.0%)	6 (6.0%)	6 (6.0%)	3.15	0.78
I understand that sustainability means providing for current needs without sacrificing the capacity of future generations to provide for themselves.	46 (46%)	50 (50.0%)	3 (3.0%)	1 (1.0%)	3.41	0.61
Weighted Average= 3.28						

Table 2 shows the frequency distribution on the extent of teachers' knowledge of sustainable development. Teachers should have a solid understanding of the economy, environment and society as the key principles of sustainable development ($\bar{x}$ = 3.57) was ranked highest by the mean score, followed by collaboration among teachers can lead to a more comprehensive approach to teaching sustainable development ($\bar{x}$ = 3.44), and school administrators should support and promote teachers' efforts in teaching about sustainable development ($\bar{x}$ = 3.43). Other items with high mean scores include environmental protection, economic growth, and social equity as key components of sustainable development ($\bar{x}$ = 3.43), the need for teachers to address global issues related to sustainability in their lesson ($\bar{x}$ = 3.41), and the need for teachers should address the three dimensions of social, economic, and environmental issues in their lessons ($\bar{x}$ = 3.38). The least rated items were Increased use of renewable resources can reduce greenhouse gas emissions ($\bar{x}$ = 3.00) and There are ample resources available for teachers to enhance their knowledge of sustainable development ($\bar{x}$ =

2.76). The table shows a weighted mean of 3.28, which is above the benchmark mean of 2.50, indicating that teachers possess a high level of knowledge about the concept of sustainable development.

Discussion

The findings of this study revealed a relatively high level of awareness and knowledge of Sustainable Development Goals (SDGs) among secondary school teachers in Iseyin Local Government Area of Oyo State, Nigeria. With a weighted mean of 3.18 for awareness and 3.28 for knowledge, the data suggest that while a general familiarity with SDG concepts exists, some thematic areas, particularly water conservation and the availability of sustainability teaching resources, remain underrepresented. These results align with global trends recognizing sustainability education as a key component of teacher competencies and professional preparation (Fischer et al., 2022; Rieckmann, 2018; Oltra-Badenes et al., 2023).

Teachers demonstrated a strong conceptual orientation toward SDGs priorities, especially those promoting social equity, environmental protection, and economic resilience. For instance, high ratings were observed for statements emphasizing the importance of peace, justice, and institutional integrity, reflecting alignment with SDG 16 (United Nations, 2015). Similarly, respondents acknowledged the foundational role of inclusive education, reinforcing SDG 4, which seeks to equip learners with the values and competencies necessary for a sustainable future (Bourn et al., 2017; Fischer et al., 2022). This confirms earlier assertions that when teachers are effectively sensitized to sustainability frameworks, they can serve as powerful catalysts for instilling transformative learning and critical thinking in students (Peedikayil et al., 2023; Gómez-Gómez & García-Lázaro, 2023).

However, this study also revealed significant gaps. Notably, only 19% of teachers reported attending SDG-related conferences or workshops. Moreover, specific sustainability practices, such as reducing water consumption, received low familiarity ratings. These results echo concerns raised by Khalid et al. (2022) and Nasim et al. (2023), who highlighted the disparity between theoretical awareness and practical application among educators. This disconnect points to the critical need for sustained professional development, as awareness alone does not equate to instructional competence or classroom implementation (Bascopé et al., 2019; González Bravo & Vivar Quintar, 2022).

The teachers' knowledge scores further emphasized an understanding of the interdependent nature of sustainable development's three core dimensions—environmental, economic, and social (mean = 3.57). This demonstrates a positive orientation towards pedagogical integration.

Yet, similar to findings by Khalid et al. (2022), participants expressed concerns about structural barriers, including insufficient training, limited access to localized instructional materials, and inadequate institutional support, which hinder effective SDG implementation. Although collaboration, curriculum integration, and real-world application were valued by teachers in this study, actual participation in sustainability-focused activities outside the classroom was notably low. This reflects observations by Fischer et al. (2022) and Oltra-Badenes et al. (2023), who argue that teacher education for sustainable development (TESD), while gaining traction globally, remains inconsistently executed and often lacks localized relevance. There is, therefore, a strong case for establishing structured professional learning communities and mentoring programs that promote inquiry-based, participatory, and action-oriented approaches, as emphasized by Rieckmann (2018) and Peedikayil et al. (2023).

Another pressing challenge highlighted by this study was the relatively low awareness of available teaching resources. Access to relevant teaching materials, digital content, and contextualized sustainability modules remains a critical gap. As shown in similar research (Khalid et al., 2022; Nasim et al., 2023), this scarcity can inhibit teachers' ability to implement effective sustainability education. The role of institutional stakeholders—school leaders, education ministries, and non-governmental organizations, in creating enabling environments for resource access and SDG integration cannot be overstated (United Nations, 2019; Gómez-Gómez & García-Lázaro, 2023).

In summary, teachers in Iseyin demonstrate commendable awareness and foundational understanding of the SDGs. However, the findings reinforce the need for systemic interventions, including targeted in-service training, curriculum reform, increased access to localized resources, and institutional frameworks that support sustainable pedagogical practice. Aligning these initiatives with both national priorities and global sustainability targets will be essential to achieving the transformative potential of education for sustainable development.

Conclusion

In conclusion, the study revealed that secondary school teachers in Iseyin Local Government Area possess a commendable level of awareness and foundational knowledge of SDGs, particularly regarding their integration into educational practices and societal development. However, the findings also highlighted significant gaps in experiential exposure, such as limited participation in workshops and inadequate access to relevant teaching resources. These shortcomings suggest that while teachers recognize the importance of sustainability education,

their ability to implement it effectively remains constrained by systemic and institutional factors. To maximize the contribution of educators to the 2030 Agenda for Sustainable Development, these issues must be resolved by thorough teacher preparation, improved curricula, and more policy support.

Recommendations

Based on the findings of this study, the following recommendations are proposed to enhance the integration of SDGs in secondary school education. First, educational authorities at the state and national levels should prioritize continuous professional development programs focused on sustainability education to equip teachers with the necessary competencies for effective SDG integration. To improve teachers' conceptual and practical knowledge of sustainable development, frequent workshops, seminars, and in-service training should be held. Second, curriculum developers should ensure that sustainability content is explicitly embedded across subjects at the secondary school level, with clear pedagogical guidelines and resources for implementation. Third, collaboration between schools, local government, non-governmental organizations (NGOs), and community stakeholders should be encouraged to support sustainability initiatives both within and beyond the classroom. Lastly, schools should establish sustainability-focused committees or clubs that engage both teachers and students in real-world sustainability projects, thereby promoting experiential learning and community impact.

Limitations and Future Directions

While this study provides valuable insights into teacher awareness and knowledge of sustainable development in Iseyin Local Government Area, several limitations should be acknowledged. First, the study was geographically limited to one local government area within Oyo State, which may restrict the generalizability of the findings to other regions with different socio-economic and educational contexts. Second, the data collection relied on self-reported responses through questionnaires, which could contain errors or social desirability bias in self-assessment. Third, the study employed a quantitative descriptive design, which, while useful for measuring levels of awareness and knowledge, does not capture deeper qualitative insights into teachers' experiences, motivations, or challenges. Future research could adopt mixed-method approaches and expand the geographical scope to offer a more thorough comprehension of SDGs integration in Nigerian education.

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