

## EARLY CHILDHOOD PRE-SERVICE TEACHERS' AWARENESS AND PERCEPTION OF THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT GOALS

**Christy Owolemi OMOTUYOLE**

*E-mail: dr.christy68@gmail.com*

+234 808 626 7346

**Olumide Olakunle IGE**

*Department of Social Sciences Education*

*University of Lagos, Akoka-Yaba, Lagos, Nigeria*

*olumideige@rocketmail.com*

+234 802 392 4409

### **Abstract**

*This study examined early childhood pre-service teachers' perception and awareness of the 2030 agenda for Sustainable Development Goals: Implications for 21st-century classroom teaching effectiveness in universities in Lagos State. The study adopted the descriptive survey research design. The research population comprised all 586 pre-service student teachers of early childhood education at the University of Lagos and Lagos State University. The study sample was 130 (one hundred and thirty) students selected using a simple random sampling technique. It utilized the researchers-designed Sustainable Development Goals and Early Childhood Education Questionnaire (SDGSECHEQ) was used to collect relevant data virtually after its conversion to a Google Form questionnaire. The reliability test yielded a reliability coefficient of 0.89. The whole data collection lasted six (6) weeks. The collected data were analysed utilizing frequency count, percentage, and mean. Findings from the study showed that the level of early childhood undergraduates' awareness of the 17 Sustainable Development Goals is high. In addition, they had a positive perception of Sustainable Development Goals. Based on these results, one of the core recommendations advanced was that early childhood education lecturers should ensure that the pre-service teachers attend conferences and workshops related to SDGs so that they can increase their knowledge as regards the SDGs. Again, the Universities in Lagos State should strive to increase their capacity and make available expert personnel in the areas of early childhood education and SDG to ensure adequate sensitization of early childhood education on SDG issues.*

**Keywords:** Early Childhood Pre-service Teachers; Perception; Awareness; Sustainable Development Goals

## **Introduction**

Education is a vital transformational tool for national development, social change, and socioeconomic empowerment (NPE, 2013) promoting and improving the individual and society. It has also been described as a systematic process that develops individuals in all aspects – mental, physical, emotional, social, and spiritual (Obasi, Izuagba & Obilo, 2018). The Federal Republic of Nigeria (2013) declares basic education as free, compulsory, basic, universal, and the right of every Nigerian, regardless of gender, religion, social status, and ethnicity. To this declaration, every Nigerian child must attend school to prepare for life in society.

Sustainable Development is the milestone agenda of the 21st century that all world stakeholders are trying to achieve by 2030. The United Nations in September 2015 adopted 17 Sustainable Development Goals (SDGs), with 169 targets after the Conference on Sustainable Development (United Nations, 2015). The SDG agenda, which provides an understanding of 21st-century global concerns touches a wide range of matters including, poverty, hunger, health and well-being, quality education, gender equality, water and sanitation, energy, economic growth, industry, infrastructure; inequality, consumption and production, climate action, and partnerships to achieve the goals (UNESCO, 2016). Rieckmann (2018) observed that the agenda cover themes that affect the daily lives of people of all ages in diverse living conditions and locations represented as the 3Ps, i.e., People, Planet, and Profit (Gil-Doménech & Berbegal-Mirabent, 2018). As a result, the development goals seek to prepare the next generation in matters relating to their lives and emergent global issues. SDGs necessitate the education and training of individuals based on global evolution.

Interestingly, many of the goals of education in Nigeria, specified in section (1), subsection (6) of FRN (2013), include: developing individuals into a morally sound, patriotic, and effective citizens, integrating the individual into their immediate community, providing equal access to quality educational opportunities for all citizens at all levels of education within and outside the formal school system and developing appropriate skills, mental, physical, and social abilities, and competence to empower the individual to live and contribute positively to society, align with the SDGs. The Sustainable Development Goals are universal and apply to everyone. When students get introduced to SDGs, they especially gain insight into critical global challenges, including poverty, education, gender equality, and lack of access to clean and potable water. Many of these concerns are inseparably linked to culture; therefore, students must be educated about the world around them to fully

comprehend the SDGs. We should prepare the next generation to become global leaders that can lead and succeed in our increasingly interconnected world.

Since no educational system can surpass the calibre of its instructors (FGN, 2013), the teacher's role in the education sector is pivotal. According to Adeyemi (2017), teachers are the driving force behind accomplishing all educational programme objectives. Given this same reality, the UN (2015) created the SDGs with a specific focus on the problem of improving the quality of teachers through teacher training initiatives. It suggests that, by 2030, education will be a crucial tool for accomplishing all of the SDGs if teachers, who are the engine of education, are given the proper attention through training. It is important to note, however, that energetic, enthusiastic, motivated, focused, and creative teachers are the ones who can successfully lead the educational system to attain the SDGs. It may be for this reason that the FGN (2013) specifies that the first two goals of teacher education in Nigeria focus on producing highly, diligent, motivated, and effective classroom teachers at all levels of its educational system and encouraging enquiry and creativity in teachers (National Policy on Education, 2013).

In this 21st-century era, teaching and learning are crucial, particularly in the early childhood period. The pre-service teachers who will later take up a job offer to guide young children through learning activities must be well informed of the SDGs early. The reason for this position is that if the intending teachers are acquainted with the relevant 21st-century skills, they will be able to aid the maximal learning of young children under the guiding principles of sustainable development goals. Extant works of literature have not revealed much regarding the early childhood pre-service teachers' perception and awareness of the 2030 SDGs. Nevertheless, previous researchers made significant efforts to raise awareness of the SDGs, particularly concerning other areas. For example, Babalola (2020) assessed the perceptions of Nigerian university students on the attainment of sustainable development goals in a study that found no significant differences in youth perceptions of SDG achievement based on gender. A related study by Omisore, Babarinde, Bakare, and Asekun-Olarinmoye (2017) that assessed the awareness, knowledge, and attitudes toward SDGs in a university found that members of the community with appreciable knowledge of the SDGs were either academic staff or persons enlightened through a personal study of the subject matter. Another study by Obasi, Izuagba, and Obilo (2018) which specifically focused on senior secondary education teachers' role in using education to achieve sustainable development goals revealed that most teachers

are ignorant of the 17 Sustainable Development Goals. The results of another related study (Chisingui & Costa, 2020) which examined teacher education and SDGs concerning future Biology teachers show that the pedagogical curriculum plan and the formative path from the respondents' point of view do not manifestly integrate SDG and its challenges for biology.

Concerning challenges militating against developing countries achieving SDG 4 Targets in Nigeria, Lawrence, Ihebuzor, and Lawrence (2020) identified inadequate education funding, out-of-school children, and neglect of learning environments and facilities as critical areas. Maidou, Plakitsi, and Polatoglou (2019) in a qualitative study involving pre-service early childhood teachers' knowledge, perceptions, and attitudes in Greece found that most pre-service teachers were aware of the SDGs. In China, Yuan, Yu, and Wu (2021) conducted a study on SDGs awareness among Chinese Senior High School students and found that participants' SDGs-related knowledge and information sources are limited. In Indonesia, a study on people's awareness and knowledge of SDGs conducted by Jati, Darsono, Hermawan, Yudhi, and Rahman in 2019 revealed that students' awareness was low. On the contrary, the results of a study by Garca-González, Jiménez-Fontana, and Azcárate (2020) exploring the pre-service teachers' perceptions after exposure to Education for Sustainability training in Spain indicated significant changes in the participant's knowledge of the Sustainable Development Goals.

It may be necessary to reiterate that the literature reviewed so far has proven that education is a crucial factor in achieving each of the 17 Sustainable Development Goals. However, from the reviewed literature it is evident that the focus of this study has not been optimally addressed. This position rests on the fact that the reviewed studies centred more on teachers in other fields while neglecting the basis, which is early childhood education. Hence, the researchers considered it imperative to investigate the early childhood pre-service teachers' perception and awareness of the 2030 agenda for Sustainable Development Goals: implications for 21st-century classroom teaching effectiveness in Universities in Lagos State.

It is widely acknowledged that the quality of the teachers of a nation largely determines the level of its educational system. Teachers play a pivotal role in advancing qualitative teaching and learning in the classroom. In this 21st century, effective teaching and learning are essential, particularly in the early childhood period, which is the foundation for formal learning. This is why the pre-service teachers who will later take up job offers to guide young children through learning activities must be

well informed of the SDGs early enough. The reason for this position is that if the intending teachers are acquainted with the relevant 21st-century skills, they will be able to aid the maximal learning of young children under the guiding principles of sustainable development goals. However, evidence shows that pre-service teachers' level of awareness of SDGs is relatively low (Hermawan, Yudhi, & Rahman, 2019; Yuan, Yu & Wu, 2021). It is concerning that Nigeria will be far behind in the achievement of the 17 goals of the 2030 agenda for the SDGs if the significance of the SDGs is not emphasised enough.

Whilst literature has captured a few efforts on the issue of sustainable development and early childhood education, empirical gaps still exist. Available pieces of literature only covered the perception and attitude of early childhood teachers and students toward Sustainable Development Goals, with less attention paid to their awareness. Moreover, most of the studies were conducted in foreign countries, including Greece, Indonesia, Portugal, and Spain, and only one in Nigeria. To the best of the researchers' knowledge, there is no evidence of studies on early childhood pre-service teachers' perception and awareness of the 2030 agenda for Sustainable Development Goals: implications for 21st-century classroom teaching effectiveness in universities in Lagos State, which the present study focuses on the following; To examine the early childhood pre-service teachers' awareness level of the 17 Sustainable Development Goals; To investigate the early childhood pre-service teachers' perception of Sustainable Development Goals in Universities in Lagos State.

### **Research Questions**

1. What is the early childhood pre-service teachers' awareness level of the 17 Sustainable Development Goals?
2. What is the early childhood pre-service teachers' perception of Sustainable Development Goals in Universities in Lagos State?

### **Methodology**

The study adopted a descriptive survey design. Its population was a total of 586 (five hundred and eighty-six) pre-service teachers comprising 433 (four hundred and thirty-three) early childhood education pre-service teachers of the University of Lagos and 153 (one hundred and thirty-three) early childhood education students of Lagos State University. In all, multistage sampling procedure

was used. This is as a result of the fact that there are no equal number of pre-service teachers in each of the universities. Thereafter, simple random sampling technique was further used to select the participants from each stratum. The total sample size used was 130 (one hundred and thirty). Furthermore, the study involved only the pre-service teachers at the 300 and 400 levels selected upon the assumption that they have been taught courses related to SDGs at the time of the study. To cull relevant data for the study, an instrument titled “Sustainable Development Goals and Early Childhood Education Questionnaire (SDGSECHEQ)” was used. The awareness section of instrument contained seventeen (17) items and the response type used was Not Aware, Somehow Aware, Aware, and Very Much Aware. While the perception section contained eight (8) items and the response type used was the Renis four-point Likert-Scale type of Strongly Disagree (SD), Disagree (D), Agree (A), and Strongly Agree (SA). The instrument was scrutinised by some research experts in the Department of Social Sciences Education, University of Lagos. The experts’ suggestions were used to improve the quality of the instrument. To test the reliability of the instrument, thirty (30) copies of the instrument were administered outside the study target sample. Thereafter, they were subjected to reliability test through the use of Cronbach’s Alpha technique and the test yielded a reliability coefficient of 0.89, indicating a high level of reliability. Since the students were on vacation at the time of conducting the study, the instrument was converted to a Google Form questionnaire, and the data were collected via Google Form. The whole data collection lasted 6 weeks. The collected data were analysed, using frequency counts, percentages, and mean, to answer the research questions.

## **Results**

**RQ 1:** What is the early childhood pre-service teachers’ awareness level of the 17 Sustainable Development Goals?

**Table 1:** *Early Childhood Pre-Service Teachers' Awareness Level of the United Nations' 17 Sustainable Development Goals*

The United Nations' Sustainable Development Goals (SDGs) seek to ...	VMA	A	SA	NA	Mean
End poverty in all its forms everywhere.	37 (28.5)	45 (34.6)	26 (20.0)	22 (16.9)	2.75
End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.	47 (36.2)	58 (44.6)	18 (13.6)	7 (5.4)	3.12
Ensure healthy lives and promote well-being for all at all ages.	46 (35.4)	64 (49.2)	9 (6.9)	11 (8.5)	3.12
Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.	55 (42.3)	29 (22.3)	37 (28.5)	9 (6.9)	3.00
Achieve gender equality and empower all women and girls.	48 (36.9)	65 (50.0)	14 (10.8)	3 (2.3)	3.22
Ensure availability and sustainable management of water and sanitation for all.	57 (43.8)	50 (36.5)	21 (16.2)	2 (1.5)	3.25
Ensure access to affordable, reliable, sustainable, and modern energy for all.	44 (33.8)	49 (37.7)	28 (21.5)	9 (6.9)	2.98
Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.	39 (30.0)	60 (46.2)	26 (20.0)	5 (3.8)	3.02
Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.	42 (32.3)	58 (44.6)	19 (14.6)	11 (8.5)	3.01
Reduce inequality within and among countries.	25 (19.2)	83 (63.8)	11 (8.5)	11 (8.5)	2.94
Make cities and human settlements inclusive, safe, resilient, and sustainable.	38 (29.2)	66 (50.8)	19 (14.6)	7 (5.4)	3.04
Ensure sustainable consumption and production patterns	30 (23.1)	55 (42.3)	13 (10.0)	32 (24.6)	2.64
Take urgent action to combat climate change and its impacts.	35 (26.9)	45 (34.6)	28 (21.5)	22 (16.9)	2.72
Conserve and sustainably use the oceans, seas, and marine resources for sustainable development.	44 (33.8)	48 (36.9)	31 (23.6)	7 (5.4)	2.99
Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss.	23 (17.7)	41 (31.5)	33 (25.4)	33 (25.4)	2.42
Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels.	35 (26.9)	67 (51.5)	13 (10.0)	15 (11.5)	2.94
Strengthen the means of implementation and revitalize the global partnership for sustainable development.	35 (26.9)	49 (37.7)	15 (11.5)	31 (23.8)	2.68
<b>Grand Mean</b>			<b>2.93</b>		

$N = 130$ ; **Key:** 1 = Not Aware; 2 = Somehow Aware; 3 = Aware; 4 = Very Much Aware

**Decision value:** 0.00 - 2.44 = Low level of Awareness; 2.45 – 4.00 = High level of Awareness.

**Note on Decision Value:** *Mean values of all the items in the table were added and divided by the number of items in the table. This gave the weighted average value of which 4.00 is the maximum value that can be obtained. The value of the weighted average that is between 0.00 and 2.44 was taken to stand for Low level of awareness while the one between 2.45 and 4.00 was taken to stand for high level of awareness.*

Table 1 shows early childhood pre-service teachers' awareness level of the 17 Sustainable Development Goals. The table revealed that the respondents were aware of the following SDGs: end poverty in all its forms everywhere ( $M = 2.75$ ); end hunger, achieve food security and improved nutrition and promote sustainable agriculture ( $X = 3.12$ ); ensure healthy lives and promote well-being for all at all ages ( $M = 3.12$ ); ensure inclusive and equitable quality education and promote lifelong learning opportunities for all ( $M = 3.00$ ); achieve gender equality and empower all women and girls ( $M = 3.22$ ); ensure availability and sustainable management of water and sanitation for all ( $M = 3.25$ ); ensure access to affordable, reliable, sustainable and modern energy for all ( $M = 2.98$ ); promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all ( $M = 3.02$ ); build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation ( $M = 3.01$ ); Reduce inequality within and among countries ( $M = 2.94$ ); make cities and human settlements inclusive, safe, resilient and sustainable ( $M = 3.04$ ); ensure sustainable consumption and production patterns ( $M = 2.64$ ); take urgent action to combat climate change and its impacts ( $M = 2.72$ ); conserve and sustainably use the oceans, seas and marine resources for sustainable development ( $M = 2.99$ ); promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels ( $M = 2.94$ ) and lastly, strengthen the means of implementation and revitalize the global partnership for sustainable development ( $M = 2.68$ ).

However, the table further shows that respondents are somehow aware of protecting, restoring, and promoting sustainable use of terrestrial ecosystems; sustainably managing forests; combating desertification, and halting and reversing land degradation and halting biodiversity loss ( $M = 2.42$ ). Based on the value of the grand mean (2.93 out of the 4.00 maximum value obtainable), which falls within the decision value for high, it can be inferred that the level of early childhood undergraduates' awareness of the 17 Sustainable Development Goals is high.



**Research Question 2:** What is the early childhood pre-service teachers' perception of Sustainable Development Goals?

**Table 2:** Showing Early Childhood Pre-Service Teachers' Perception of Sustainable Development Goals

The United Nations' Sustainable Development Goals (SDGs) ...	SA	A	D	SD	Mean
Would have reduced the proportion of extremely poor Nigerians by half.	31 (23.8)	65 (50.0)	23 (17.7)	11 (8.5)	2.89
Would have reduced the proportion of Nigerians who suffer from hunger by half.	29 (22.3)	68 (52.3)	31 (23.8)	2 (1.5)	2.95
Ensure all young adults have access to education and literacy.	43 (33.1)	46 (35.4)	39 (30.0)	2 (1.5)	3.02
Make cities and human settlements inclusive, safe, resilient, and sustainable.	26 (20.0)	70 (53.8)	21 (16.2)	13 (10.0)	2.84
End poverty in all its forms everywhere.	40 (30.8)	52 (40.0)	23 (17.7)	15 (11.5)	2.90
Ensure healthy living and promote well-being for all at all ages.	30 (23.1)	50 (38.5)	39 (30.0)	11 (8.5)	2.76
Help achieve gender equality and empower all women and girls.	28 (21.5)	43 (33.1)	31 (23.8)	28 (21.5)	2.55
Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, and combat desertification.	35 (26.9)	61 (46.9)	27 (20.8)	7 (5.4)	2.95
<b>Grand Mean</b>					<b>2.86</b>

$N = 130$ ; **Key:** 1 = Not Aware; 2 = Somehow Aware; 3 = Aware; 4 = Very Much Aware

**Decision value:** 0.00 - 2.44 = Negative Perception; 2.45 – 4.00 = Positive Perception.

**Note on Decision Value:** Mean values of all the items in the table were added and divided by the number of items in the table. This gave the weighted average value of which 4.00 is the maximum value that can be obtained. The value of the weighted average that is between 0.00 and 2.44 was taken to stand for **Negative Perception** while the one between 2.45 and 4.00 was taken to stand for **Positive Perception**.

Table 2 shows early childhood pre-service teachers' perception of sustainable development goals. The table revealed that all respondents agreed to the following items: all young adults will have access to education and literacy ( $M = 3.02$ ); protect, restore, and promote sustainable use of terrestrial ecosystems; sustainably manage forests and combat desertification ( $M = 2.95$ ); end poverty in all its forms everywhere ( $M = 2.90$ ); would have reduced the proportion of extremely poor Nigerians by half ( $M = 2.89$ ); make cities and human settlements inclusive, safe, resilient, and sustainable ( $M = 2.84$ ); ensure healthy living and promote well-being for all at all ages ( $M = 2.76$ ); and lastly, achieve gender equality and empower all women and girls ( $M = 2.55$ ). In conclusion, the value of the grand mean (2.86 out of the 4.00 maximum value obtainable), which falls within the decision value for positive perception, it can be inferred that early childhood pre-service teachers had a positive perception of Sustainable Development Goals.

### **Discussion of Findings**

The study findings suggest that the early childhood undergraduates' awareness level of the 17 sustainable development goals is high and that the pre-service teachers had a positive perception of all the 17 goals. The reason could have been the exposure of the pre-service teachers to courses related to the 2030 agenda of the Sustainable Development Goals as they approached the completion of their programme. Interestingly, these findings negate the joint results of Jati, Darsono, Hermawan, Yudhi, and Rahman (2019), which revealed that students' perceptions and awareness were relatively low. Similarly, the findings contradict the results of Yuan, Yu, and Wu (2021) who reported that students covered in their joint study had limited knowledge and information about the SDGs. A lot of reasons could be responsible for this limited knowledge. According to Lawrence, Ihebuzor, and Lawrence (2020), poor budgetary allocation to education funding, out-of-school children syndromes, and continued neglect of learning environments and facilities rank prominently among factors accounting for the low level of knowledge, perception, and awareness of the UN Sustainable Development Goals.

### **Conclusion**

From the study, it is clear that early childhood pre-service teachers in the Universities in Lagos State are highly aware of and positively perceive the achievement of 17 the Sustainable Development Goals. However, despite this appreciable level of awareness, there is a need to create more advocacy on the implementation of the 17-point agenda as this would ensure quality education as proposed by the United Nations (2015).

## Recommendations

Based on the findings, the study recommends as follows:

1. Pre-service teachers should be encouraged to attend conferences and workshops related to SDGs so that they can further increase their awareness and knowledge level as regards the SDGs.
2. Periodic sensitization training and re-training should be encouraged for early childhood educators in the university to equip them with the requisite knowledge, skills, and information as this would further positively shape their perceptions of SDGs and other related matters of global interest.

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