

## **Sustainable Development Goals: Enriching Teacher Education Curriculum for Quality Education and Lifelong Learning**

**Grace C. Offorma** *Prof*

Department of Arts Education  
University of Nigeria, Nsukka

&

**Chika Chukwuma -Nosike** *PhD*

Department of Arts Education  
Imo State University, Owerri

### **Introduction**

Sustainable Development Goals (SDGs), which replaced the Millennium Development Goals (MDGs) were launched in September 25, 2015. The SDGs are 17 and have 169 targets, of which SDG 4 is on quality education which is critical to this study. This is because achieving quality education will serve as an enabler and a link to the achievement of other SDGs. Education at all levels and in its entirety, constitutes an important instrument for tackling virtually all global issues (Edor, 2014). Education being an agent of change, is a vital tool for the objectives of SDGs, especially, quality education and lifelong learning in Nigeria. Lifelong learning is about meeting the diverse and context specific learning needs of all age groups including the acquisition of basic literacy technical skills through both formal education and effective alternative pathways to learning.

Teacher education is education acquired at the tertiary level. In other words, it is the training given to pre-service teachers to prepare them for their role in education. Teachers are seen by experts such as Kolawole (2016) and Offorma (2009), as the agents and hub that coordinate all the factors in teaching and learning processes to promote the attainment of educational objectives. Teacher education to Kolawole (2016), is the education that a would-be teacher receives in the process of becoming a teacher. Chukwuma-Nosike and Okoro (2016) described teacher education as a formal organized programme for the systematic production of qualified teachers that will implement the curriculum of various programmes at all levels of education

Every level of education requires a curriculum for it to be meaningful, purposeful and practicable. Curriculum at all levels of education is the document that contains all planned and unplanned learning contents, experiences, activities, methods and evaluation guidelines, that learners are exposed to under the auspices of the school, to bring a total change in

behaviour. Invariably, the teacher education curriculum is the document that contains all the planned and unplanned total learning the prospective teachers are exposed to that will lead to the production of good quality and highly qualified teachers. Thus, the teacher education curriculum gives a clear picture of what, when, how of things, ideas, activities and experiences to be taught, expected to be taught for a course of programme. The essence of teacher education should be production of intellectually grounded and professionally committed teachers. This is very relevant as Federal Republic of Nigeria (FRN, 2013, stated that no education system can rise above the quality of its teachers.

Teachers are curriculum implementers and therefore, the quality of teachers determines the output in teaching and learning. Adedayo (2011) observed that the current Nigerian teacher education curriculum is rather restrictive and inadequate to equip the pre-service teachers with the required skills and attitude to cope with the demands of the 21<sup>st</sup> century education. For teacher education to provide the individuals with the knowledge, skills and attitude needed as professional teachers, it becomes imperative that the curriculum must encompass the most current components that will provide the requisite knowledge, skills, and attitude that will enable the individuals function effectively in the global market (Aquah, 2014). Available evidence from previous studies show that institutions offering teacher education turn out graduates in large numbers annually, yet unemployment is on the increase in Nigeria (Osuji, 2009; Aquah, 2014). Those who are employed are found to be unable to carry out their assigned duties without further training. A question therefore arises as to the effectiveness, relevance, and functionality of the curriculum and curriculum materials used in the educational process. Mentoring according to Glatthorn, Boschee, Whitehead and Boschee (2014), promote differentiated instruction, direct instruction, required for implementation of lifelong learning and continuous education.

Considering the importance of the achievement of the SDG 4, the teacher education curriculum need to be enriched to become more dynamic, sensitive to social changes, needs and challenges. It should be enriched with mentoring programme, technological/computer-based learning, problem-solving, innovative learner-centred methods and entrepreneurial skills. Mentoring encourages growth in the mentees' area of specialization (Wiles and Bondi, 2014). It involves intervention, facilitation and cooperation from the experienced teacher to a mentee, who is either a pre-service teacher or a fresh graduate teacher. In most disciplines, such as Architecture, Urban and Regional Planning, Fine and Applied Arts, among others, studio masters/professional guide perform the role of mentoring (Mkpa, 2002; Osuji,

2009). The pre-service teacher will be trained on ways to become a successful mentor to their future students. Mentoring system encourages collaboration among teachers and the pre-service teachers.

Teacher education curriculum should focus on 21<sup>st</sup> century skills of creativity, flexibility, open mindedness, language and communication skills, resourcefulness, continuous learning, courage, sense of humour, assertiveness and so on. Enem (2014), suggested that quality content, experiences and activities should be utilized to enrich the curriculum. For Ajake, Oba and Ekpo (2014), there is need to include the use of web resources into the curriculum to produce quality teachers that will effectively implement the SDG 4. Innocent-Ene (2014), included entrepreneurial skills as another important area to be integrated in teacher education curriculum. The world has become a global village, which requires workforce that is proactive. Efforts should be made to highlight in the teacher education curriculum the 21<sup>st</sup> century skills and attitude. The curriculum should be enriched with quality content, analytical reasoning and critical thinking.

Teacher education curriculum needs to shift its curriculum from traditional practice to the application of knowledge, skills, and attitudes, using the problem-based learning. Wiles and Bondi (2014) explained that engaging in the use of problem-solving learning promotes critical thinking and problem-solving skills. They further stated that producing effective problem-solvers in the information age is a primary goal of education. This agrees with the FRN (2013) that no education can rise above the standard of its teachers.

All these, demand effective implementation of teacher education curriculum to attain the SDG4 in Nigeria. The study therefore sought to identify ways of enriching teacher education curriculum for quality, equitable, and inclusive education and to promote lifelong learning. Two research questions guided the study, namely:

1. In what ways can teacher education curriculum be enriched for quality education and lifelong learning?
2. In what ways can enriched teacher education curriculum promote the achievement of the SDG4 In Nigeria?

## **Method**

The study adopted a descriptive survey design. The population of the study is made up of all 1,286 and 4,2289 students in two teacher education institutions in Imo State. A total sample of 120 teachers and 420 students were randomly selected constituting about 10% of the teacher and student populations respectively.

A four-point rating scale consisting of Strongly Agreed, Agreed, Disagreed and Strongly Disagreed was used for data collection. The instrument was titled 'Teacher Education Curriculum Enrichment Scale' (TECE) and constructed in two parts. Part one elicited respondents' personal information, while part two comprised twenty items in two clusters of ten (10) items each standard deviation. It was validated by three specialists, two in Educational Measurement and Evaluation and one in Curriculum Studies. The scale was weighted 4, 3, 2, and 1 respectively for the four levels of agreement. The research questions were analysed through mean scores and standard deviation.

The reliability of the instrument was established using test-re-test method using two weeks' interval. Thirty lecturers and eighty students, who were not among the students used for the study, were involved in this. The scores obtained were subjected to Pearson Product Moment Correlation, which gave a coefficient of .76. Two research assistants participated in the data collection. The decision point was between the upper limit of 4 and the lower limit of 3, which is 2.49 and 2.50. This means that items with mean score of 2.50 and above were agreed, while those with mean values of 2.49 and below were considered as disagree.

## Results

**Table 1:** Teachers' and students' responses to ways teacher education curriculum can be enriched for quality education and lifelong learning

S/N	Items	Teachers		Students		Decision
		Mean	SD	Mean	SD	
1	Technological/computer-based learning activities	3.6	0.62	3.2	0.52	Agreed
2	Innovative learner-centred teaching methods	3.0	0.56	3.4	1.00	Agreed
3	Effective teaching skills	3.2	0.64	3.1	0.84	Agreed
4	Entrepreneurial skills	3.3	1.00	3.4	0.75	Agreed
5	Online activities	3.2	0.86	3.4	0.78	Agreed
6	Problem-based learning	3.1	0.76	3.6	1.00	Agreed
7	Traditional teaching methods	1.8	0.45	2.0	0.51	Disagreed
8	No computer-based learning	1.6	0.39	1.8	0.48	Disagreed

	due to lack of power					
9	21 <sup>st</sup> century skills	3.2	0.56	3.4	0.68	Agreed
10	Mentoring programme	3.4	0.68	3.5	0.82	Agreed
<b>Total Mean Score</b>		<b>29.4</b>		<b>30.8</b>		
<b>Grand Mean Score</b>		<b>2.94</b>		<b>3.08</b>		

Table 1 reveals the teachers’ and students’ responses on ways teacher education curriculum can be enriched for quality education and lifelong learning. The Table shows that eight (8) out of ten (10) items had mean scores above the 2.5 cut-off point and the pooled mean score is 3.01. The score is above the cut-off point, which shows a high agreement by the respondents that the above factors are ways of enriching teacher education curriculum for quality education and lifelong learning.

**Table 2:** Teachers’ and students’ responses to ways enriched teacher education curriculum can promote the achievement of the SDG4 in Nigeria

S/N	Items	Teachers		Students		Decision
		Mean	SD	Mean	SD	
1	Producing teachers that will meet the SDGs	3.0	0.68	3.4	0.81	Agreed
2	Achieving quality education among pre-service teachers	3.4	0.87	3.3	0.68	Agreed
3	Equipping would-be teachers with entrepreneurial skills	3.1	0.81	3.2	0.56	Agreed
4	Encouraging the development of mentoring activities	3.5	0.56	3.0	0.87	Agreed
5	Shifting the curriculum to become functional	3.2	0.62	3.1	1.00	Agreed
6	Producing ill-equipped teachers upon graduation	1.8	0.43	1.9	0.40	Disagreed
7	Bringing specialization required for lifelong learning	3.1	0.58	3.2	0.81	Agreed
8	Helping to bring a link towards the achievement of other SDGs	3.3	0.64	3.3	1.00	Agreed
9	Producing a curriculum that will tackle global challenges	3.4	0.62	3.0	0.72	Agreed
10	Making the teachers relevant and prepared for 21 <sup>st</sup> Century activities	3.0	0.56	3.2	0.68	Agreed
<b>Total Mean Score</b>		<b>30.8</b>		<b>3.08</b>		

**Grand Mean Score****30.6****3.06**

In Table 2, all the ten (10) items, except one had a mean score of above the cut-off point-off of 2.5, with a grand mean score of 3.07. This shows that the respondents agreed that enriching the teacher education curriculum will produce quality teachers that will meet the SDGs; pre-service teachers with entrepreneurial skills, mentors, problem solvers, teachers equipped with 21<sup>st</sup> century skills, grooming teachers' specialization required for lifelong learning and quality education that will serve as a major link to the achievement of other SDGs in Nigeria.

### **Discussion**

All the respondents agreed that teacher education curriculum could be enriched to promote the achievement of the SDG4 in Nigeria. The respondents agreed that the curriculum could be enriched with technological/computer-based learning, mentoring activities, 21<sup>st</sup> century skills, and attitude, entrepreneurial skills, innovative teaching skills, and learner-centred teaching methods for the achievement of quality education and information knowledge and lifelong learning. This agrees with the findings of Ajake, Oba and Ekpo (2014), who opined that university programmes would need to be changed every two or three years to ensure that the content of their teaching reflects the rapidly advancing frontiers of scientific and information knowledge. Teacher education curriculum needs to be enriched to adequately equip pre-service teachers for the achievement of the other SDGs, like gender equality, poverty and hunger reduction among others. Lending support to this, Innocent-Ene (2014) and Ajake, Oba and Ekpo (2014) findings revealed that there was need for integration of entrepreneurial skills into the teacher education curriculum to enable graduate teachers fit into the job market. This implies that enriching the teacher education curriculum with entrepreneurial skills could help to achieve quality education and other SDGs in Nigeria.

Another finding highlighted ways the enriched teacher education curriculum could promote the achievement of SDG 4 and other goals in Nigeria. The mean score of the respondents for the nine (9) out of ten (10) items, which ranged between the 3.0 and 3.5 was above the 2.5 cut-off mean, showing the respondents' agreement to the statements. It is evident that if the teacher education curriculum is enriched, it will promote the achievement of the SDG4 in Nigeria. This agrees with Kolawola's(2016) findings, that meaningful teacher education programme requires quality and practical curriculum that will lead to the production of highly qualified, competent and skill-filled teachers that will cope with global challenges, such as SDG. To

attain this result, Kolawole suggested that the teacher education curriculum contents need to be enriched to contain lifelong learning skills and specific knowledge specialization required for the 21<sup>st</sup> century Nigeria. These knowledge, attitude and skills acquired from the enriched teacher education curriculum will promote quality education and lifelong learning as well as become a driver to the attainment of other SDGs in Nigeria.

Secondly, the enriched teacher education curriculum will promote problem-solving, computer-based and entrepreneurial skills acquisition among pre-service teachers, therefore should be encouraged for enhanced quality education and lifelong learning at all levels of education. This will heighten the achievement of other SDGs like poverty and hunger reduction, good sanitation, etc. These were seen from the respondents' responses to the items, which were more of positive responses. The respondents agreed that the enriched teacher education curriculum will highlight different entrepreneurial, computer-based and problem-based skills for quality education fit for the world of work. This, Isaac (2015), stressed, that the teacher education curriculum must be enriched with new skills and ideas to meet with global trends, especially, in the areas of ICT and entrepreneurship.

### **Conclusion**

The importance of achieving the SDG4 in Nigeria and the role of the teacher in attaining quality education and lifelong learning, buttresses the need to enrich teacher education curriculum. This is because quality education and lifelong learning could be attained through effective preparation of teachers. Teacher education curriculum could be enriched with mentoring programme, computer-based learning, problem-based learning, innovative teaching skills, methods and entrepreneurial skills among others. Therefore, enriching the teacher education curriculum will help in the achievement of the SDG4 in Nigeria.

### **Recommendations**

Based on the findings this study, the researchers made the following recommendations:

1. Curriculum planners and other stakeholders should enrich the teacher education curriculum to meet with global trends and societal needs as they relate to quality education and SDGs.
2. Current 21<sup>st</sup> century skills, knowledge and attitude should be carefully organized to enrich the curriculum and promote the achievement of quality education and lifelong learning.

## References

- Adedayo, J.O. (2011). Improving STEM education in Nigeria: The challenges of science educators. In O.S. Abonyi (ed), *Proceedings of the 52th Annual Conference of STAN*, 118-124.
- Ajake, U.E.; Oba, A.N. & Ekpo, T.E. (2014). Enriching higher education curriculum to meet the challenges of 21<sup>st</sup> century in Nigeria. *Journal of Educational and Social Research (JESR)*, 4(3), 21-30.
- Aquah, P.A. (2014). Enriching the business education curriculum for relevance in the global workforce. *Global Journal of Human-Social Science, Linguistics and Education*. 14, 7.
- Chukwuma-Nosike, C&Okoro, I.F. (2016). Emphasizing creativity in teacher education curriculum for best practices in curriculum implementation. *Abuja International Journal of Education and Management (ABIJEM)*. 4(1), 218-226.
- Edor, I.P. (2014). Education and Sustainable National Development in Nigerian the 21<sup>st</sup> century: Challenges and way forward. In N. Onyegegbu & U. Eze (eds), *Teacher Education in Nigeria: Quality, relevance and sustainability*. Enugu; Timex Enterprise.
- Enem, E.O. (2014). Curriculum innovation; A tool for quality assurance and sustainability for teacher education in science education in a globalized world. In N. Onyegegbu & U Eze (eds), *Teacher Education in Nigeria: Quality, relevance and sustainability*. Enugu; Timex Enterprise.
- Federal Republic of Nigeria (2013). *National Policy on Education*. Lagos: NERDC Press.
- Glatthorn, A.A. Boschee, F. Whitehead, B.M & Boschee, B.F. (2014). *Curriculum leadership: Strategies for development and implementation*. 4<sup>th</sup> Edition, USA: SAGE.
- Innocent-Ene, E.O. (2014). Empowering women in Nigeria for national transformation through entrepreneurship education. *Abuja International Journal of Education and Management (ABIJEM)*. 3, 108- 122.
- Isaac, J.J. (2015). Enhancing creativity and innovation in entrepreneurship through business education in Nigeria. *Journal of Teacher Perspective*. 10(1), 77-83.
- Kolawole, C.O. O. (2016). Teacher preparation: Curriculum and values. *Nigerian Journal of Curriculum Studies*. 23(3), xxiv-xxxii.
- Mkpa, M.A. (2002). *Teacher preparation for a successful universal basic education in Nigeria. Searchlight on secondary school education in*



- Nigeria*. Ado Ekiti, All Nigeria Conference of Principals of Secondary Schools (ANCOPSS). 108-120.
- Offorma, G.C. (2009). Curriculum implementation in distance learning. In U.M.O. Ivowi, C. Nwifo, C. Nwagbara, J.Ugwungwu, I.E. Emah & G.Uyo. *Curriculum Theory and Practice*. Nigeria: CON Publication, 196-203.
- Osuji, S.N. (2009). Teacher education curriculum in Nigeria in the perspective of lifelong education. *The Journal of International Social Research*. 2(8), 296-301.
- UNESCO(2015). Education strategy, for lifelong learning. [www.unesco.org](http://www.unesco.org). Retrieved 24 October 2016.
- Wiles, J.W. & Bondi, J.C. (2011). *Curriculum Development: A Guide to Practice*. 8<sup>th</sup> edition, New Jersey: Pearson Education.