



INNOVATIVE CLASSROOM PRACTICES AND SUSTAINABLE DEVELOPMENT IN NIGERIAN EDUCATION: THE WAY FORWARD

¹Adeoluwa O.V., ²Adeyi M. O. and ³Oyewale G. M.

¹Department of Vocational and Technical Education
Ekiti State University, Ado-Ekiti;

²Department of Social Science Education,
Ekiti State University, Ado-Ekiti

³Department of Arts and Language Education
Ekiti State University, Ado-Ekiti

Abstract

The realities of the Nigerian society today is worrisome. There appears to be violence in many parts so much so that it is reported almost on daily basis. This violence ranges from kidnapping, human trafficking, rape, domestic violence, hooliganism, drug abuse, ritualism, insurgency to disregard for the dignity of the human person. When the government introduced Civic Education into the secondary school curriculum, one actually thought that would address the challenges of lack of patriotism, inadequate civic participation and the menace of civil disobedience. Today, however, it appears that Nigerians have become more impatient and carefree, disobeying traffic law, by-passing prepaid meters and evading taxes. Most of the values have certainly collapsed. In the past, teachers' illustrations, passions and every effort made to internalize the very messages they passed across to the learners still come to mind especially when one thinks about the present challenges in Nigerian society. This makes one also wonder why the situation is worse today even when teachers now have much better equipment with which to deliver learning. Something is certainly wrong with the delivery system. We may have the state-of-the-art instructional materials and equipment today. But, how are we using them to deliver instruction? Are they enhancing or inhibiting learning in our hands? What are our interactions like in the classroom? Have we attuned our delivery system to developments in technology? Are we concerned about actual learning for application or for certification? Are we concerned about special learners? This paper thus attempts to answer these questions as it examined innovative classroom practices and sustainable development in Nigerian education: the way forward.

Keywords: Innovative, Classroom Practices, Sustainable Development.

Introduction

The realities of the Nigerian society today is worrisome. There is violence in many parts. Kidnapping, human trafficking, rape, domestic violence, hooliganism, drug abuse, insurgency and crass disregard for the dignity of the human person have permeated the polity so much so that it is almost on a daily basis. Most unfortunate is the fact that these are posted on social media for children, teenagers and youth to watch and have their hearts brutalized, removing the milk of human compassion, perhaps with which they have been raised. When the

government introduced Civic Education into the secondary school curriculum, one actually thought that would address the challenges of lack of patriotism, inadequate civic participation and the menace of civil disobedience. Today, however, it appears that Nigerians have become more impatient and carefree, disobeying traffic law, by-passing prepaid meters and evading taxes. Most of the values we used to know have certainly collapsed.

Ruminating over these tends to make one remember our teachers of old with their illustrations, passions,



elicited innate imageries through their stories and every effort they made to make us internalize the very messages they passed across. These internalized messages still guide us today in attending to the issues of life. This makes one also wonder why the situation is worse today even when teachers now have much better equipment with which to deliver learning. Something is certainly wrong with our delivery system. We may have the state-of-the-art instructional materials and equipment today. But, how are we using them to deliver instruction? Are they enhancing or inhibiting learning in our hands? What are our interactions like in the classroom? Have we attuned our delivery system to developments in technology? Are we concerned about actual learning for application or for certification? Are we concerned about special learners?

Several questions to ask indeed. It underscores the urgency to look again into our classroom practices and see how we can take advantage of developments in the technology of instruction not only to address our challenges but also to entrench our gains and make them immanent in our education system.

Classroom Practices

Wikipedia (2018) sees the classroom as a learning space; a room in which both children and adults learn. Without dwelling on the meaning, the writer would like to emphasise the expression 'learning space'. This is to distract attention from the common notion that we are necessarily referring to a specific room in a building. The classroom is the learning space where we have gathered learners. It may go by different nomenclatures like laboratory, field, hall, gymnasium, computer room, etc. The focus is to make sure that learning is not inhibited by external distraction. In fact, with developments in information and communication technology, the classroom appears in many cases to have moved inside devices especially in open and distance education.

It is pertinent to say that there are different types of classrooms and the major focus is to ensure that learners have less distractions, sustain attention, find freedom in owning instruction and engage in activities that make learning easy and fun-like in a pleasing, inspiring environment. Classroom practices, therefore, would refer to the dynamics of all the

necessary multiple agents that make these to happen and their interactions within the system of the classroom (Li and Oliveira, 2015). These are diverse in format and structure and their effectiveness is affected by internal and external variables.

Classroom practice is a vital aspect of instruction. Irrespective of the level of preparation of a lesson and the instructional materials provided, unless the classroom practice is adequately monitored, the lesson may not be effective. The classroom is a system and it has multiple agents which interact to ensure effective delivery of instruction. Teachers are also expected to prepare lesson plans and the intended classroom practices are entrenched in the lesson plans. But as there are diverse classrooms populated by different sets of learners, so also are there different classroom practices attuned not only to the peculiarities of the learners but also to the peculiarities of the subject or topic being taught. Therefore, there would not be an end to innovations in classroom practices.

Alber (2015) regards some of those effective practices to include teachers' clarity. The teacher will actually do well when he/she lets learners understand the purpose of the subject-matter, the objectives of the lesson, what they stand to gain by learning the topic and what criteria will determine their success in the lesson. He is certainly not alone as researches have shown that learners achieve better when they are let in on the objectives and gains of the lesson (Salman, Yahaya, Yusuf, Ahmed and Ayinla, 2012). The teacher should also encourage classroom discussion as learners seem to internalize better what they have discussed. So also are metacognitive strategies important. Students should be accorded opportunities to monitor their own work and direct their own learning. Hubbard's (2003) lesson plan checklist is in that direction. Some others relevant practices would include formative assessment to ensure that learners are making desired progress and these must be met with immediate feedbacks to the learners.

In the Mathematics classroom, practices which have been tested and found to lead to better achievement include the encouragement of students' discussion whereby they would have opportunity to ask and hear from colleagues how problems are solved (Ing,



Webb, Franke, Turrou, Wong, Shin, and Fernandez, 2015). Durken, Star and Rittle- Johnson (2017) also found that presenting and comparing multiple solutions help a lot to achieve better. But most importantly, when error analysis is employed to identify the problem-solving difficulties of students, the tendency is for them to achieve greatly (Kingsdorf and Krawec, 2014)

Weaver (2018) appears to regard effective classroom practices as such that should address issues of discipline in the classroom so as to reduce distractions, irresponsibility and unseriousness on the part of learners to the barest minimum. Therefore, the teacher should have clear expectations of the students, letting them know from the onset how he/she wants them to behave when being taught. Moreover, the teacher should have observable, measurable, positively stated, understandable and always applicable procedures for students to follow in all settings. The teacher is also expected to encourage expected behaviour, discourage inappropriate ones, monitor students' behaviour and provide opportunities for them to respond through writing, reading out loud, among others.

Much as classroom practices vary in different settings, it suffices to say that common ones in the Nigerian setting include setting procedures and rules, allowing students to respond to issues, allowing students to stretch at intervals (even singing while they do), using class discussion, making students breathe in and out, using peer tutoring, analysing non-print materials, reading aloud and reading around, among others. It is also noteworthy to expect that, in all of these, classroom practices would be different in settings where information and communication technology is deployed in the delivery of instruction. Where power point presentations are made or interactive boards are used; for example, students could be allowed to respond to images or try out their hands on the presentation itself.

It is also pertinent to note that classroom practices cannot be separated from classroom interactions. These interactions are between teacher and students, amongst students and between students and materials. It may also include discussion and debate, role play and collaborative learning (Bhaliya, 2015). This underscores the fact that classroom practice

could also be a function of the teaching method adopted. Just as robust classroom interactions have been found to influence achievement of learners (Podschuweit, Bernholt and Bruckmann 2016). It has also been claimed that teaching methods which engage learners' participation in class are likely to significantly affect performance than others (Tlhoale, Hofman, Winnips and Beetsma, 2014).

Innovations in Classroom Practices

Much has been said about classroom practices. One may ask, however, why do we need innovations? This is not unconnected with developments the world over and especially Nigeria. Knowledge is rapidly changing. The students we had twenty years ago are different from the ones here now who are digital natives. Access to information has greatly expanded and it appears there is knowledge explosion which does not only have to be managed but appropriately directed to ensure sustainable development.

Akin to this is the fact that organizations and industry have also changed. They are now knowledge-based and there is the need to produce learners who are employable, that is who have a progressive, entrepreneurial and change-oriented mindframe. This calls for classroom practices which build confidence in learners, explore their potentials, allow hands-on tryouts for them and help them to focus on profitable applications of learning items. The concept of innovation has been with us for a long time except that it refuses to hide its face. This is about new ideas, devices and systems. It is about a new way of doing things. Reasons for innovation may range from challenges with existing system and practice to new developments in science and technology and also research which now make a change in the existing practice inevitable. Not only that, it may also be due to the desire to do the same thing in a different way. The Nigerian situation certainly calls for constant innovations within the system especially because we run same education policy within a country with different sections having unequal educational aspirations and development. Because of this diversity, classroom practices can't be same since the needs from one section to the other are not the same. Developments in research and tools for instructional delivery have also necessitated innovations in classroom practices. Learning space has become increasingly wider due to ubiquitous and



cloud technologies. So also have attention been focused on the rights of disadvantaged and special children to equal educational opportunities.

There is, for example, the challenge of attending to the needs of learners with Attention-Deficit/Hyperactivity Disorder (ADHD). Parrish (2018) suggests four classroom strategies which could be effective. These include creating urgency (giving them tasks and providing deadlines), activating their interests (giving them choices according to their passions), allowing for breaks and movements (allowing them at intervals to stretch, sharpen pencils, dance, etc) and providing structure for them by maintaining constant rules even when activities change.

Today, attempts have been made in some States to introduce information and communication technology in the delivery of instruction. Beyond this, it is a known fact that many students now own handsets and they have access to the internet. These cannot but have implications for classrooms practices. Even when mobile learning has not been employed by teachers, it is not out of place to allow students who have access to mobile phones use them for learning with the teachers regulating the use by students instead of them using it to distract the class.

Similar to this is the issue of blended learning which may provide an anytime anywhere learning platform for students even while they still interact with themselves and their teachers. We must progressively provide platforms for students which will allow them to be in charge of their learning and monitor the learning, after all, they are stakeholders in the learning endeavour (Leimbach, 2015). The flipped classroom is also relevant to instruction today. It makes interaction amongst students robust and effective. This has been tested and found good as it enables learners to be in the classroom before the actual classroom (Moravec, Williams, Aguilar-Roca and O'Dowd, 2010). There have also been the discourse on the necessity of incorporating local practices into the teaching of science whereby activities in the classroom will relate concepts in the curriculum to practice in the local environment which learners can easily relate with and participate in to make learning more concrete (Mei-Hung and Chin-Cheng, 2015; Shitaw, 2017). This is actually one area

we really need to dwell on in Nigeria if we would relate science to our environment so that learners can construct new knowledge from their experiences.

The constructivists believe that learning of new information is a function of what is already known by the learners. In line with this, we need to always treat students not as novices but as learners who have residual knowledge they can leverage on to learn the new material. Advance organizers, especially graphic organizers are very relevant here. If teachers consciously adopt the use of these, we may achieve better results as researches have shown them to be effective (Atomatofa, 2013; Zaini, Mokhtar and Nanawi, 2010). Graphic organizers can also elicit trait-treatment interactions as many students would be able to relate with the class session irrespective of his/her learning style.

This brings to mind the issues of the inclusive classroom where learners with physical disabilities have the opportunity of learning side by side with their non-disabled peers. We must evolve classroom practices which accommodate all learners and treat them as one. Teachers must device a method of selecting learners for classroom-based activities without bias. It may mean that everyone has his/her name in a bowl before the teacher and each time the teacher needs someone to perform a task, he/she dips hand into the bowl and brings out the name of the learner to call upon.

Some schools also employ streaming, grouping students by ability. Teachers need to be conscious in such schools to employ different classroom practices for the different groups, not enjoying high fliers and looking down on or castigating slower learners. Related to this is the multigrade classroom where students mixed in age and ability are put together. Teacher needs to decide whether to teach all groups together, teach one grade as others work independently, use self-instructive materials, teach one subject to all grades at different levels of difficulty or develop peer, cross-age and cross-grade teaching strategies.

Benefits of Innovative Classroom Practices

Innovative Classroom practices have been said to be a response to certain phenomena ranging from the attempt at ameliorating a challenge, doing same



thing in a better way to availing the instructional delivery system the benefits of developments in pedagogy and technology. Most times, they have made possible the change in the modes of instruction from teacher-centeredness to student-centred approach. Wong, Li, Choi and Lee (2008) found that when it involves ICT, it makes the teachers to generally share a vision on inquiry and collaborative learning. It makes it easy for teachers to work together, creating new learning experiences for learners.

Moreover, learning today demands more creative, hands-on and flexible forms of teaching (Chatlani, 2017). Learners are not only interested in actively participating in the learning process, they are also interested in directing and monitoring their own learning. Innovative classroom practice ensures all these, thereby making the learners enjoy the learning process while teachers are more fulfilled being practical and effective facilitators achieving greater learners' performance. Again, when learners become active participants in classroom practices that are tailored towards their needs it brings self-awareness and confidence building and through their hands-on experiences, they attain employable skill development.

The adoption of innovative classroom practices ignites the passion for learning in the students and it provides them with the tools needed to succeed. Jettisoning the one-size-fits-all approach, it recognizes that everyone has different learning styles. With technology, it has become easy for the teacher to individualize lesson plans to different students and their unique styles of learning. Moreover, with assistive technology, for example, phonetic spelling software helps dyslexic students and others with reading problems to convert words to the correct spelling (Mckinney, 2016). Therefore, innovative classroom practices attend to individual learner's needs, make them innovative thinkers and place emphasis on what is needed to thrive in today's world

Challenges of Implementation

Many times, lofty ideas have been conceived and birthed in the education sector. But, at the stage of implementation, challenges always set in. A lot of teachers appear full of ideas as to what to do to

enhance learning in their classrooms through better classroom practices. But, it appears that a few factors inhibit the deployment of such ideas. Okoth (2016) found in Kenya that lack of appropriate teacher professional development, non-suitable learner characteristics and inappropriate pre-service training, among others, affected the implementation of curriculum innovation efforts. These are issues which no one can gloss over.

Take teachers' professional development for instance. How many times have we been really serious with that in Nigeria? Not that trainings have not been done but what level of seriousness attended to those training workshops on the part of the teachers? How many of the training materials, beyond books, have been provided at the workshops? Related to this is the fact that most schools even lack the materials and facilities which can make innovative classroom practices easy for interested teachers. No thanks also to the poor state of infrastructure in the schools.

It boils down to one factor: funding. In the past thirty years, the funding of education in Nigeria has been grossly inadequate. This has affected many aspects of the school system including infrastructure, instructional materials, learning environment, teachers' conditions of service and teachers' morale. What level of innovation and creativity would one expect from a teacher who had his/her last monthly payment six months ago?

What about the classroom culture in our schools and the schools social context? Our classrooms have specific arrangement that do not easily make room for changes in classroom practices. In fact, a lot of the classrooms are even overcrowded. Moreover, the students and their parents are so used to the traditional ways of teaching, that some teachers, especially in public schools, would want to be careful in introducing innovations to classroom practices. Other issues would include the attitude of students and parents to learning, especially in rural areas, and the quality of pre-service training of teachers in the higher institutions which, in turn, are grossly underfunded.



Implications for Sustainable Development

The concept of education for sustainable development over the years has been a learning process which equips stakeholders in education with the paradigms necessary to achieve economic prosperity and civic responsibility while restoring the living systems necessary for life sustenance. It is about acquiring the knowledge, skills, habits, attitudes and values which could lead us to consciously shape a sustainable future (University of Plymouth, 2018). It is believed that this paper would inspire the necessary steps to take in making classroom practices henceforth shape for us a sustainable education system which can ensure a dependable future through the production of sound learners who will not only be able to engender a better future but will also be able to help ensure a constant revision of our education process for better results.

It goes without mention that research efforts today are towards sustainability. Therefore, every effort at innovation must be directed towards sustainable development. This is development that would not only ensure stability in the progressive improvement of academic achievement of learners but also provide the foundation for the assurance of such in the future. Needless to say that the confidence of sustainable development in education should be placed at the doorstep of innovative classroom practices which would ensure students' participation and satisfaction as well as their trust in the instructional process. This was found by Perello-Marin, Ribes-Giner and Diaz (2018).

Moreover, innovative classroom practices will make learners attain employable skill development through hands-on experiences. This is vital for sustainable development. Nigerian education has been found to be lacking in employable skill development. Employers are even still claiming that our graduates are largely unemployable. When this challenge has been attended to, then our education would be said to be able to sustain our economy and there will, therefore, be some confidence in the products of our schools as well as the system that produced them. With this, one expects that the large number of Nigerian students going to Ghana and other African countries for education and paying in those countries the fees they do not want to pay in Nigeria will

drastically reduce and our institutions would be the better for it.

Conclusion

Attempt has been made to present random thoughts on classroom practices with regards to the Nigerian situation. One actually cannot exhaust innovations in classroom practices. One can only hope that the discussions inspired by this paper will be very robust, targeting solutions to the various challenges of education in Nigeria.

Recommendations

The following recommendations are hereby made with a view to attending to the fundamental challenges bedeviling our attempts at innovative classroom practices in Nigeria:

1. More teachers and lecturers are hereby encouraged to join in participatory and party politics so they can influence decisions that would enhance the level of funding of education in Nigeria. This would have positive effects on infrastructure, supply of learning materials, conditions of service and teachers morale.
2. Professional bodies and institutions of higher learning should always make research reports available to educational agencies and ministries in charge of education in the country with a view to making them keep abreast of developments on the field and the implications for Nigerian education.
3. Teachers should make conscious efforts to engage in the utilization of mobile learning so as to encourage students to get used to utilizing their mobile devices or that of their parents for learning purposes.
4. Teachers should make conscious efforts to involve learners in lesson delivery and always make their instructional delivery learner-centred.

References

- Alber, R. (2015). 5 Highly effective teaching practices. www.edutopia.org retrieved on 10th May, 2018.
- Atomatofa, R.O. (2013). Effect of advance organizers on attainment and retention of students' concept of gravity in Nigeria, *International Journal of Research Studies in Educational Technology*, 2(1).



- Bhaliya, R.S. (2015). Classroom interaction retrieved from [www.slideshare.net>Ravibhaliya](http://www.slideshare.net/Ravibhaliya) on 12th May, 2018.
- Chatlani, S. (2017). 9 Benefits of Implementing Innovative Education. Retrieved from www.educationdive.com on 13th May, 2018.
- Durkin, K.; Star, J.R. & Rittle-Johnson, B. (2017). Using comparison of multiple strategies in the Mathematics classroom: Lessons learned and next steps. *Mathematics Education* 49, 585-597.
- Hubbard, L.R. (2003). *Study tools for educators*, St. Louis: Effective Education Publishing.
- Ing, M.; Webb, N.M.; Franke, M.L.; Turrou, A.C.; Wong, J.; Shin, N. & Fernandez, C.H. (2015). Students' participation in elementary Mathematics classroom: The missing link between teacher practices and student achievement? *Educational Studies in Mathematics*, 90(3), 341-356.
- Kingsdorf, S. & Krawec, J. (2016). A broad look at the literature on Math word problem solving across students with and without learning disabilities. *Learning Disabilities Research and Practice*, 29(2), 66-74.
- Leimbach, L. (2015). Using blended learning in the classroom. Retrieved from www.competencywork.org on 12th May, 2018.
- Li, Y. & Oliveira, H. (2015). Research on classroom practice. In Cho S.J (Ed). *The Proceedings of the 12th International Congress on Mathematical Education*. DOI10.1007/978-3-319-12688-3-46.
- Mckinney, P. (2016). Innovation in the classroom: Why education needs to be more innovative. Retrieved from philmmckinney.com on 13th May, 2018.
- Mei-Hung, C. & Chin-Cheng, C. (2015). The connection between the local Chemistry curriculum and Chemistry terms in the global news: The globalization perspective. *International Journal on Local Newspaper and Chemistry Curricular*, 1(2).
- Moravec, M.; Williams, A.; Aguilar-Roca, N & O' Dowd (2010). Learn before lecture: A Strategy that improves learning outcomes in a large introductory Biology class, *CBE Life Science Education*, 9(4), 473-481.
- Okoth, T.A. (2016). Challenges of implementing a top-down curriculum innovation in English Language teaching: Perspectives of Form III English Language teachers in Kenya, *Journal of Education and practice* 7(3), 169-177.
- Parrish, N. (2018). Setting students with ADHD up for success. Retrieved from www.edutopia.org on 10th May 2018.
- Perello-Merín, M.R. Ribes-Giner, G. & Díaz, O.P. (2018). Enhancing education for sustainable development in environmental university programmes: A co-creation approach, *Sustainability*, 10 (158).
- Podschuweit, S.; Bernholt, S. & Bruckmann, M. (2016). Classroom learning and achievement: How the complexity of classroom interaction impacts students' learning, *Research in Science and Technological Education*, 34(2), 142-163.
- Salman, M.F.; Yahaya, L.A.; Yusuf, A.; Ahmed, M.A. & Ayinla, J.O. (2012). Effects of behavioural objectives-based instructional strategy on senior school students' academic performance in Mathematics in Omu-Aran, Nigeria, *Journal of Educational and Learning*, 1(2), 121-127.
- Shitaw, D. (2017). Practices and challenges of implementing locally available equipment for teaching Science in primary schools of North Shewa Zone in Amhara Region. *African Journal of Chemical Education*, 7(1).
- Tlhoale, M.; Hofman, A.; Winnips, K. & Beetsma, Y. (2014). The impact of interactive engagement method on students' academic achievement, *Higher Education Research and Development*, 33(5), 1020-1034.
- University of Plymouth (2018). What is education for sustainable development? Retrieved from www.Plymouth.ac.uk. On 14th May, 2018.
- Weaver, J. (2018). 8 Effective classroom practices. www.meaa.org. Retrieved on 12th May 2018.
- Wikipedia (2018). Classroom. Retrieved from en.m.wikipedia.org on 12th May, 2018.
- Wong, E.M.L.; Li, S.S.C.; Choi, T. & Lee, T. (2005). Insights into innovative classroom practices with ICT: Identifying the impetus for change, *Educational Technology and Society*, 11(1), 248-265.
- Zaini, S.H.; Mukhtar, S.Z. & Nanawi, M. (2010). The effect of graphic organizer on students' learning in school, *Malaysian Journal of Educational Technology*, 10(1), 17-23.