



CHAPTER 49

IMPLEMENTING A PRODUCTIVE CURRICULUM IN SPECIAL NEEDS EDUCATION

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Introduction

Education is understood by many as the ability to read, write and perform skills, but it is much more than this. It is generally seen as the basis for development of any nation whether social, economic, scientific and political development. It is the bedrock for any meaningful and sustainable development in any nation (Emesini, 2017). Technological, social, economic and cultural empowerments are acquired by individuals and groups by means of formal education. Hence knowledge, skills, values and attitudes developed enable the individual to contribute maximally to the society and in turn benefit from the society by finding fulfillment in personal growth through every aspect of learning. National Planning Commission (NPC) (2013), notes that education is the instrument for empowering the young with knowledge and skills that provide them access to productive employment.

Federal Republic of Nigeria (2013:14) supports this by stating that “education should empower its recipients with the appropriate skills, physical and social abilities and competencies to live and contribute positively to the society; hence the need to reposition our educational system for sustainable development”. In a bid to queue into the need for education the Federal Government of Nigeria had adopted the 6-3-3-4 system, the new Universal Basic Education (UBE) scheme and the Education For All (EFA). The guiding principle of EFA in Nigeria was equipping of every citizen with knowledge, skills, attitudes and values that would enable them be useful to the society by contributing their own quota to the development of the community. All these policies have failed in the achievement of their objectives in Nigerian education system especially as they pertain to special needs education. The number of out of school children is still on the increase. “Despite, these well-institutioned educational policies that have been adopted by the Federal Government of Nigeria, education has fallen victim to the nation’s chronic, social and political challenges that tend to reduce institutional efficiency” (Egbo, 2005:2).

In a situation report about the state and future of special needs education in Nigeria in general and Delta State in particular, Onwubolu (2005) laments that inadequate curriculum, poor funding, lack of interest in the education of



exceptional children, lack of adequate personnel and equipment are some of the problems deterring the growth and development of special needs education in the state. This type of education is a customized educational programme designed to meet the unique needs of persons with special needs that the general education programme cannot cater for Federal Ministry of Education (FME) (2015) describes it as a formal education given to persons with special needs. It is tailored towards Individualized Education Programme (IEP). It uses special tools to be able to address the specialized learning needs of the exceptional child. This is a form of individualized education aimed at compensating the child with special learning problems.

Ozaji (2005) sees special education as a balanced system of education that seeks to compensate the disabilities of and facilitate learning for children with special needs. In the same vein UNESCO (2011) opines that special needs education is the type of education designed to facilitate the learning of individuals who for a wide variety of reasons require additional support and adaptive pedagogical methods in order to participate and meet learning objectives in an educational programme for reasons that may include (but not limited to) disadvantages in physical, behavioural, intellectual, emotional and social capacities.

The thesis statement of this chapter is that curriculum planning, development and implementation in the schools do not take cognizance of the fact that the special needs children are part and parcel of the school system. Their education should be of primary importance. The tendency is to swing the pendulum of curriculum implementation more to the side of the non special needs children. The author therefore will discuss in the chapter the concept of productive curriculum and its implementation to suit the special needs children.

The Concept of Curriculum

It is necessary here to see curriculum in two perspectives. That is the regular and the unique forms of curriculum. Obi, Ejeh and Azubuike (2019) see curriculum as an instructional guide or blue print for teaching and learning to bring about positive and desirable changes in the learner's behaviour. Oteh and Akuma (2011) sum up the interpretation of curriculum as: those contents taught in schools, a sequence of courses, and everything that goes on within the school including co-curricular activities, guidance and counselling and interpersonal relationships that are taught both inside and outside the school directed by the school programme of studies. That is to say that curriculum consists of all those content and learning activities including the out of class learning approved at the appropriate levels and considered necessary for the learner's wholesome development. Curriculum embraces both subject matter and learning experiences that learners acquire both formally and informally. Through exposure to the subject matter and learning experiences, they are enabled to develop skills, knowledge, attitudes, appreciation and values under the auspices of the school. This explanation shows that curriculum is the life wire of any academic institution.



Education of children with special needs may follow a similar curriculum as that offered in the parallel regular education system. However, they take individuals' particular needs into account by providing during planning and development specific resources for example specially trained personnel, equipment, space and if appropriate modified educational content or learning objectives. These programmes can be offered to individual students within already existing educational programmes or be offered in a separate educational institution. By this it qualifies to be a unique curriculum or a productive curriculum suited for special needs education. The unique curriculum brings out the specialness of special needs education. According to Ozoji, Ozegya, Yakwal and Oluka (2016) the specialness is in the provision of appropriate facilities. The unique curriculum provides for the infrastructures that enhance the efforts of the exceptional learner in the learning enterprise. For instance, a well laid out school compound with flat terrain, gentle rising entrance doors, wide corridors with strong hand rails to support and facilitate easy movement of the special needs children who must move from one classroom to another.

Implementation of the Productive Curriculum

It has been pointed out that the productive curriculum is the most suitable for special needs education. In realization of this, FRN (2014) states the objectives that should guide the teacher while carrying out special needs education as follows:

- i. To provide access to education for all persons in an inclusive setting;
- ii. To equalize educational opportunities for all persons irrespective of their genetic composition, social, physical, sensory, mental, psychological or emotional disabilities.
- iii. To provide adequate education for all persons with special needs in order that they may fully contribute their own quota to the development of the nation.
- iv. To provide opportunities for the exceptionally gifted and talented persons to develop their talents, natural endowments/traits at their own pace in the interest of national development and
- v. To design a diversified and appropriate curriculum for the different target groups.

Looking at the objectives of special needs education, it becomes imperative that the implementation of the objectives is the onus of a special teacher. Two or one teacher in a class is very necessary for the implementation of the regular and the unique curriculum. With the two teachers in an inclusive classroom, collaborative teaching is the answer. The special teacher focuses attention on the curriculum delivery for the special needs children because he is well trained in the productive curriculum that has provision for the learners to acquire their useful knowledge, values and skills. With these they fit into the society like their colleagues who graduated in the regular curriculum. None of both learners has an undue advantage over the other. The special teacher from his training/orientation



must have known how to use all the facilities meant for children with various impairments such as “Braille” writer designed for children with visual impairment, hearing aids meant for children with hearing impairment to amplify their auditory sound. Under normal circumstances, a child who does not hear well cannot learn given the fact that what we hear registers well in the brain.

Generally, teachers handling children with special needs should have a sound knowledge in the use of special devices such as Assistive Technology (AT) devices to educate children with special needs. Van Laarhoven et al (2008) suggest that teachers need knowledge of when and how to use the appropriate AT devices to benefit their students. Therefore, they need to be provided with professional development activities to learn how to use “the right tool for the right job” to reach students with disabilities effectively.

In this way the expertise and resources of both teachers are combined as an inclusive pedagogy for every learner in the classroom especially the special needs children to benefit from. Curriculum access especially in the area of environmental accommodation must be assured. It is encouraging to note that presently most institutions are adjusting the harsh school and hospital environments to accommodate the space needs of the children with special needs. The terrain is made friendly such that classrooms, workshops and laboratories are accessed easily. Most new buildings are constructed with wide doorways, light doors and other devices that have removed performance barriers for better access by children with disabilities.

Measures for Instruction

The children need also to be accommodated instruction – wise. The special teacher adopts such measures as:

- (a) Alternative instruction format. Sometimes listening to a lesson while delivery in the class doesn’t get the information across to the students then the alternative format can help the learner internalize the content better.
- (b) Use of digital tools in teaching the children.
- (c) Provision of additional resources to help clarify ideas.
- (d) Preferential seating. The children with hearing impairment, physical disability etc could be made to sit closer to the teacher’s talking position.
- (e) Extra time for assignments
- (f) Alternative assignments and
- (g) Use of sensory tools

When a student is involved in individualized education programme (IEP), they could be helped to learn and engage better with their school environment. For this to happen the teacher brings in various accommodations to help them process information, feel more comfortable and achieve curriculum goals. Accommodations look different for each student. For instance, some will need to minimize distractions in the classroom whereas others may need alternative ways to receive their information from the teacher.



Modification

Close to accommodation is the use of modifications. They should be provided for students with disabilities who are unable to comprehend all the curriculum contents being delivered by the teacher during the teaching learning process. This could take the form of modifying some assignments for children with cognitive impairment in an inclusive classroom, helping the children with hearing impairment with a sign language interpreter, assisting children with visual impairment with computer text – to speech, computer based systems, and extending time for completion of assignments for children with fine motor limitations, visual impairments or learning disabilities.

Instructional Assessment

There is also the need to introduce the instructional access involving assessment in the implementation of the productive curriculum. There is no gain saying the fact that assessment is very important as far as learning is concerned. The best way to improve learning for a diverse range of learners is through appropriate, reliable and valid assessment in the classroom. Teachers in an inclusive classroom are very responsible for guidance and assessment of students with disabilities who take the same lessons and should succeed as their peers. The students should all be involved in formative and summative assessments. However, the choice of assessment tool depends on the purpose of the assessment; and the same tool can be used for both formative and summative assessments (Bourke and Mentis, 2014). Assessment of children with disabilities is better done with some appropriate accommodations. For instance, in assessing written tests and oral exams, extended time should be preferred. Adjustments made in the method of testing and modifications such as timing, setting, presentation, response and scheduling are some good examples of accommodations. They make assessments accessible and relevant to all children in a mainstream setting and reflect the accurate and comprehensive ability of children with special needs (Sperotto, 2013). Assessment accommodations ensure that children with special needs have access to learning assessments such that:

The ideal accommodation would function like a corrective lens, offsetting the disability related impediments to performance and raising the estimate of student's proficiency to the level it should be. This would make the scores obtained by students with disabilities comparable in measuring to the scores obtained by other peers not disabled. (Koretz, 2008:289).

Thus, assessment accommodation would also mean providing the students with special needs technologies that provide them the same opportunities in the assessment as other children. For instance, blind test takers have access to Braille exam test etc. (Panzalvolta and Lotti, 2012).



Differentiated Instruction

This is a teaching approach that tailors instruction to all students' learning needs. All the students have the same learning goals but the instruction varies based on students' interests, preferences, strengths and struggles. Instead of teaching the whole group in one way (may be lecture method) a teacher employs different methods. In an inclusive classroom, curriculum delivery should be done through many methods to suit the academic needs of every learner in the classroom. Four major areas of differentiated instruction are identified thus:

- a. Content: figure out what the students need to learn and which resources will be of help.
- b. Process: This consists of activities that help students make sense of what to learn.
- c. Projects: They show what they know.
- d. Learning environment: this explains the nature or condition of the classroom and how the class works together.

Instructional Scaffolding

In making learning easier for children with learning difficulties, scaffolding learning techniques can be explored. This is a method of learning derived from Vygotsky theory.

This method according to Anggadewi (2017) provides more adaptive ways to the child's ability because it uses a tiered learning method. The learning materials and questions are given, beginning with the easiest questions. The teacher then guides the learner. The scaffolding method provides a remedial teaching in children with special difficulties especially in an inclusive classroom where children with special needs are admitted to learn with children who do not experience specific needs in the same class. Note that children with special needs have equal rights to attend regular schools.

Vygotsky in her theory argues that in order to achieve optimal knowledge, children need sufficient help hence the concept of scaffolding. Slavin (2009) explains further that it provides a gradual amount of assistance to the students and then reduces aid, and provides them opportunities to take on greater responsibilities. The purpose of this theory is to load children with many complex tasks. In the completion of the task, they are assisted by a more mature person or colleague who possesses more ability to complete the task. The use of scaffolding can motivate students' learning interest greatly.

Assistive Technology

Related to curriculum access is the provision of assistive devices (AD) and adaptive technology (AT) for children with disabilities. This simply implies that all learning environments should be inclusive, accessible and supportive to every child. The concept of inclusion we know is that children with disabilities have the right to learn in typical classrooms using same curriculum, toys and adequate



implements as their peers. The goal is to adapt existing classroom materials so that they can be easily accessed by all students. Assistive technology (AT) is any item, piece of equipment, software programme or product system that is used to increase, maintain or improve the functional capabilities of people with disabilities (Ellis, 2016).

Assistive technology devices (ATD) help people with disabilities achieve their goals. They use the products to do activities they cannot do on their own. These devices serve a variety of uses-enabling people to complete tasks like communicating, playing, moving, hearing, writing, seeing, paying attention, developing language or motor skills among others. Some of these devices are:

- a. 4" x 5" communicator for children with visual impairment. This type of communicator has 12 levels, scanning capabilities and large brightly illuminated targets that make it possible to see, select and activate messages.
- b. 4 in 1 joystick switch. This helps children with visual impairments to handle multiple adaptive switches.
- c. 32 message communicator. This is very ideal for more advanced communication.
- d. Students with autism spectrum disorder (ASD) can use visual support systems such as visual aids/technology and hands-on activities.
- e. Mobility Aids-wheel chairs, scooters, walkers, canes, crutches, prosthetic devices and orthotic devices.
- f. Hearing aids.
- g. Cognitive Aids-computers or electrical assistive devices to help people with memory, attention or other challenges in their thinking skills.
- h. Computer hardware and software such as voice recognition programmes, screen readers and screen enlargement applications to help people with mobility and sensory impairments.
- i. Physical modifications in built environments such as ramps, grab bars, wider door ways for access to buildings, businesses and work places. There are many other devices as different disabilities require different technologies, but suffice it to mention these few.

Peer Support

Peer support access is also useful in curriculum implementation in special needs education. Peer support is a strategy through which schools provide structural opportunity for students without disabilities to work along side peers with disabilities, often intellectual and development disabilities (IDD). Peer support arrangements differ from other peer-mediated approaches in that they:

- a. Include an emphasis on providing social support and engagement in a social experience.
 - b. Allow for a support structure that may be influenced by the strengths and interest of each involved party.
 - c. Generally involve a small number of students.
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- d. Are usually focused on supporting students with low incidence disabilities or students with more significant needs and
 - e. Focus on delivery in an inclusive environment (Carter et al 2009).

Olson, Roberts and Leko (2015) opine that to support inclusive classroom and culture, schools should implement peer support arrangements to provide students with opportunities to promote inclusion.

In all, peer support arrangements should be explored very well in curriculum implementation especially as Carter et al (2016) found that it can expand the social network of a student with a significant disability by providing an opportunity for the development of friendship.

Adapting Teaching Strategies in Special Needs Education: Important General Hints

To further improve in curriculum delivery in educating children with special needs the teacher needs to apply the strategies listed below:

- i. Getting students ready for upcoming lessons.
 - Discuss and establish learning expectations. Students should know what they will learn during the lesson
 - Discuss and establish behavioural expectations e.g. talk quietly to your neighbour during classwork.
 - Be very clear on the materials needed for the lesson. Students will need crayons, scissors and coloured paper to work with.
 - ii. Conducting Effective Lessons
 - Review the previous lesson e.g in mathematics underline key figures.
 - Emphasize key points by using worksheets to highlight key words.
 - iii. Help the students to participate during the lesson
 - Agree on special cues for the SNEs to focus on and answer questions.
 - Steer clear of sarcasm and criticism, it will demean them before other classmates.
 - iv. Help students to have focus
 - Share gentle reminders for them to work on their assigned tasks.
 - Break down assignments into smaller less complex tasks.
 - Let them partner up and discuss their thoughts.
 - v. Check students' performance
 - Question individual students with special needs, to gauge their mastery of the lesson content for example, ask them the formula used in arriving at an answer or share their thoughts on the attitude of a main character in a chapter.
 - Use this time to help the students correct their mistakes such as spelling errors.
 - vi. Provide follow up Directions
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- Having instructed the entire class, provide additional oral directions for the students, for example, do you understand the directions?, also write the follow up direction on the board.
- vii. Concluding Lesson
- Let them know about 5 or 10 minutes before hand when the lesson will end.
 - Go over assignments with them to gauge their understanding.
 - Offer pointers on preparation for the next lesson.
 - Inform them of what to expect in the next lesson.

Conclusion

Inclusive classroom should function well in our schools. This will usher in better curriculum planning and implementation in education. The children with special education needs in the same classroom are helped to benefit from the inclusive education, by capturing fully their special learning needs through varied curriculum strategies, implemented by a well trained special education teacher. Assistive Technology devices are necessary to facilitate learning by this group of children. Education is the right of every child, so children with special education needs must not be despised or discriminated against. They should be active members of the school community so as to achieve social competence.

Suggestions

Since inclusive education is now highly emphasized and recommended, serving teachers and trainee teachers should be properly oriented/trained to the learning needs of children with disabilities.

The teachers should also be well educated on how to fit into an “inclusive classroom”.

The school environment should be such to accommodate a friendly space for special needs children. For example the physically disabled on the wheel chair should be able to move in and out of the classroom comfortably.

Funds should be made available by different arms of the government, communities, non governmental organizations (NGOs) philanthropists, PTAs to provide Assistive Technologies and devices to enhance learning by the special needs children in our schools.

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