

# Curriculum Approaches for Children with Autism

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**Abstract:** This write-up seeks to highlight curriculum approaches for children living with autism. Teaching is an art as long as you are trained with different approaches to engage or facilitate teaching and learning for all learners to gain access-equity and quality. In this vain, the focus is on curriculum appropriate for making learning accessible to enable learners with ASD.

The write up will look at areas of curriculum adaptation, differentiation as pedagogical approaches. Although, teaching is an art, in this contemporary era, almost every teacher and educational institutions should endeavour to tailor teaching styles to meet inclusion educational goals, SDG4 and education for all goals.

This article is purposefully geared towards the inclusion of persons with ASD and suggested curriculum approaches that could be used for them to fully participate in an inclusive learning environment.

Various methods are also suggested in this article to teachers and staff in general which they could use to improve their methods of handling persons with ASD in their classrooms.

The work is organized thematic areas with an introduction, and various themes which are thoroughly explained with conclusion and references.

Globally and locally, teachers of facilitators are being encouraged to make their school environment inclusive enough to accommodate diversity in learning. Each and every learner has a unique way of learning so all these abilities should be harness by the facilitators or teachers by varying their teaching styles to make teaching and learning more inclusive enough to embrace all types of learners in the mainstream inclusive school environment.

**Keywords:** ASD; Autism Spectrum Disorders, Curriculum approaches, IE; Inclusive Education, IEPs; Individualised Educational Programmes, Pseudonym-Aba and SDG4.

## I. INTRODUCTION

In this contemporary era, the term autism spectrum is going through a lot of scholarly and medical diagnostic debates and metamorphosis which is of massive interest to both the individuals on the autism spectrum, professionals, care givers parents and the entire world as a whole. The term Autism Spectrum Disorders (ASD) is a term which covers a range of conditions which is also known as 'triad of impairments'. The term was initially introduced by Lorna wing in 1996 Jordan (2002). The 'triad of impairments' include difficulties in social interaction, communication and imagination. Glenys et al (2011) cited (Wing & Gould 1979). According to Baird et al (2006), it is believed that, 1 in 100 of children who are living in United Kingdom is estimated to be on the autism

spectrum. At the moment there is new is a proposed version of America Psychiatric Association Diagnostic Statistical Manual (APA) DSM-V which will be used very soon and seek to eliminate Asperger syndrome as a separate condition. The ASD usually manifest itself in various degrees of severity which ranges from mild, moderate to profound. This suggests that, each individual on the spectrum is unique with diverse range of support that is needed for that particular individual. With these complex issues surrounding the ASD and as student, who hope to be working in a setting with these individuals, I found it appropriate to write on this particular topic.

The article is structured with an introduction and the components in the question which need to be reviewed with themes. Highlights about curriculum adaptation and chosen task by staff from primary school, followed by differentiation, then its activities and tasks to allow children on the ASD to effectively participate in lesson which they will benefit from their experiences. It is then continue with areas in which staff practices might be improved. Finally there is concluding aspect by analysing some few points raised in the article.

## II. CURRICULUM ADAPTATION

The global trend of educational provision is now driven by inclusion with its philosophy of incorporating special education principles and strategies with the sole aim of achieving a comprehensive system of education (Ferguson, 1998). Inclusion agenda has been strongly supported vigorously all over the world this can be seen in the Salamanca statement (UNESCO, 1994) which reflects the United Nation's universal strategy of Education for All (EFA) which is laid on the sound principle of equal opportunity of all learners. Inclusion is about the right of child to participate and is the school's sole responsibility to adapt the school curriculum to suit the diverse needs of the learners to maximise participation Thomas and Vaughan (2004).

The Public law 94-142 which is federal law in United States mandates States to provide free appropriate public education for all children between age ranges of three and twenty one regardless of their disability in the less restrictive environment. However, in some countries parents are allowed to make their choices of the educational settings their children should be placed (Thomas and Vaughan, 2004).

According to the Special Educational Needs code of Practice (DfES, 2001) in England, the national curriculum for all primary schools should take into account the types of options and diversity of activities that are available in the class environment to help children effectively access National

curriculum. Thus teacher's planning should be adaptable enough to allow onward movement, relevance and differentiation. The inclusion statement in the National curriculum lays much stress on the relevance of giving effective learning opportunities to all types of learners which provides three core principles for inclusion in the areas of setting appropriate learning challenges, attending to pupils' different needs and overcoming possible stumbling blocks to learning and assessment for various individuals and groups of learners. Because of the unique nature of children on the autism spectrum for instance taking their differences into account, how they process information, how they understand and interact with friends and staff, their ability to understand and use language and communication should be considered when including them in the mainstream school settings for maximization of effective participation.

Curriculum adaptation means efforts that are made to adjust the way in which content is represented or presented in which learners participate and respond to the curriculum, including the implementation of units or features of universal design for learning (Rose & Meyer, 2002; Wemeyer, Scunds, Knowlton & Kozelski, 2002). Also, how instructions and activities should also be tailored to meet the needs of individuals on the autism spectrum. One of such techniques is differentiation. I will talk about differentiation into details in the next sub heading.

### III. DIFFERENTIATION

Children or learners in a given classroom or setting are unique and have their own kinds of differences and needs. One child can never be like the other, they all form heterogeneous groups of learners and they differ in so many areas including cognitive abilities, race, age, social economics status, ethnic background, strength and weakness in a particular subject, their previous educational knowledge and some may even be labelled as having special educational needs James and Brown (1995).

Regardless of whatever settings children found themselves learning whether inclusive mainstream classes or special educational settings, staffs need to tailor their activities and tasks to be adapted to their needs. However, my main focus of discussion is on how staffs differentiate activities and task in science subject in the primary school to enable children on the autism spectrum to effectively participate from the experiences.

Although in my earlier discussion above I have talked about several international conceptions and frameworks who advocated for inclusion of individuals with special needs into the mainstream schools, this position was buttressed by Warnock committee report in England, Scotland and Wales in the 1978 Department of Education and Science report Rose and Howley (2007). Children on the autism spectrum because of their peculiar conditions, staffs or professionals need to use the strategies and approaches of differentiation to meeting their needs by breaking down complex instructional tasks into

steps or piecemeal, instructional tasks and activities should also be geared towards their learning styles and strength and also when planning lessons principles of differentiation need to be taking into account.

Therefore differentiation refers to every effort made by staffs and professionals during planning and implementation of task and activities to meet diverse ranges of needs of different types of learners in the provision work at varied levels and using different activities, adjusting the manner group work is delivered by taking the learners strength and weakness into consideration and also taking the pace at which instruction is delivered and the use of different types of resources according to the needs of the pupils Rose and Howley, (2007) cited (O'Brien and Guiney, 2001).

Differentiation normally takes so many forms in the classroom below are some few examples of differentiation;

**Differentiation of content:** that is putting learners in a group while they all work towards a particular aim. For example reading competence, but different reading schemes will be used to get to that goal Lewis (1992) in Rose and Howley (2007).

Differentiation can also be done by using the interest of the child. For example, pupils can be asked to plot graph but the data for plotting the graph can be linked to their various interest. For instance, a child who has interest in aeroplanes, he or she could be asked to plot his graph using the departure time of different airlines. Children on the autism spectrum enjoy learning when their special interests are linked with their learning activities.

Another form of differentiation is differentiation of pace. This type employs all pupils to work or do the same activities and task and with the same materials or resources, however the staff will have different expectation of time needed to complete the task given (Lewis, 1992) cited by Rose and Howley, (2007).

Differentiation of access is a form of differentiation whereby the staff gives different resource and different procedures for individual learners to work with. For example asking a pupil to read a sentence from a book, another may be asked to read that same sentence using a computer and the rest may be asked to read it from a flash card.

Differentiation by outcome usually takes place when staff allows pupils no matter their needs and abilities to engage in the same activities and tasks but in this instance, the staff will be expecting different results or products from the pupils depicting their different abilities. However, it is important to know what expectation of outcome from a particular pupil is acceptable. For example, writing one line of sentence will be desirable for a particular pupil signifying an improvement but for the others half a page may be required to show progress James and Brown (1998) asserted to this view.

Most often, staffs group pupils of different abilities and needs for a particular activity. For example pupils acting as supporters or working with friends whom they are comfortable with (Rose and Howley, 2007) cited Lewis (1992).

#### IV. DIFFERENTIATION ACTIVITIES AND TASK BY STAFF TO ALLOW CHILDREN ON THE AUTISM SPECTRUM TO EFFECTIVELY PARTICIPATE IN THE LESSONS AND BENEFIT FROM THE EXPERIENCES

It is widely held view that teaching is an art which suggest that every teacher or staffs has his or her own way of approaching the academic curriculum. But when teaching children on the autism spectrum, staff could vary their styles by using certain specialised models or methods in addition to boost their involvement.

Children on the autism spectrum have their own way of thinking and sensitivity to stimuli around them. Plimley and Bowen (2007) cited (Williams 1992, 1996; Grandin 1995 a, b) who contend that, most children on the autism spectrum have visual and concrete way of thinking and sometimes finds it difficult to comprehend mainly verbal information and most of them usually take longer time to process information and also they have unusual difficulty turning quickly from one topic or task to another.

Most staffs in their bid to use differentiation in their mainstream classes with children on the autism spectrum normally structure their classrooms in such a way to suit the varied needs of children on the autism spectrum. Teachers usually introduce time tables that help the children on the autism spectrum to predict what will be happening next in chronological order that reminds them about any change in the normal routine and timers are also used to explicitly tell them when a task or activity will end.

As a result of these sensory issues, teachers or staffs always try as much as possible to remove all possible impediments in the form of noises, smells and unpleasant lights or unwanted stimuli that will affect their effective participation (autismeducationtrust, 2012).

In some cases, teachers do have the collaboration of other adult workers such as teaching assistants and other supporting colleagues working with them to promote effective delivery and maximum participation in differentiated lessons in the classroom.

The teaching assistant or the support teachers at times work with some of the children on the autism spectrum by assisting them to reach the central learning goals (James and Brown, 1998). When there is teaching assistant in the classroom, the lead teacher or permanent teacher always give clear instructions of the part he wants the teaching assistant to play in the class during the lesson, usually the teacher does not give them ultimate duty of planning specific teaching task or activities but however, all important aspects of the lesson plans relating to children on the autism spectrum are noted

down in a book or any recorded device which is given to the teaching assistant before the start of every lesson or activity James and Brown, (1998).

The teaching assistant could be helping some of the children to achieve the central learning objectives and at times prepare resources for the class. Rose and Howley, (2007) cited Garner (2007) that the role of the teaching assistant could also be seen in the following ways;

Working closely with individual groups either with children on the autism spectrum or the entire class. The teaching assistant also supports the implementation of individualized educational goals (IEPs) of the children; giving additional support in form of explanation and helping the children to stay on their various activities and task.

The following is a brief description of how staff and professional went about differentiating a child on the autism spectrum in a primary mainstream class in a science lesson. Since autism is a spectrum condition, each child has his or her own range of needs and level of severity.

Eba (not real name) who was diagnosed as been on the autism spectrum condition and has been admitted into a primary class six in a mainstream school. He is verbal and very fluent in the English language. Eba usually finds it difficult when a new topic is introduced in the class and rarely contributes. Some of his characteristic traits are; he is disruptive and anxious whenever a new topic is introduced in the classroom but very good at topics of his personal interest on football game on the internet called FIFA thirteen. He is always seen talking when it is about something he has knowledge of and will be happy to finish his task if he actually knows what to do. Eba is not all the times organised. His hall mark is using different types of avoidance strategies and he sees writing as a daunting task.

Eba's teacher has prepared a science lesson which involved in introduction to a new topic on solid and liquid mixtures (solute and solvent) which will involve an experiment and writing down of findings.

His teacher sent him one time to have one to one sessions with the teaching assistant who was successful to avoid him possibly disrupting his mates in the class if he becomes anxious and begins to make statements that are out of context to what they were doing. This situation happened previously, but his teacher was very keen to assist him achieve his individualised education plans of taking part in inclusive class activities.

As the teacher applied the methodology of differentiation to address his problem, all other pupils who have problem with writing benefited from his approach as well. These are some of steps he took to address the situation; before, the lesson Eba had his usual one to one session and the teacher gave the teaching assistant a sheet containing a list of all the key words and useful concepts that were going to be used in the lesson so that his prior understanding could be developed in advance.

This was done to help him prepare for the class and further discussions.

During the main lesson, Eba was so organised and confident to raise his hands to answer some few questions posed by the teacher and even gave example by saying when sugar and water is mixed, is an example of solid, liquid mixtures. This participatory behaviour he has never put up in class before. For him to engage in the science experiment successfully, the teacher gave Eba visual support in form of pictures that will enable him plan what he has to do one after the other. His visual cues compose of pictures and bold headings of the main procedures of the experiment which enabled him carry out the experiment in such a sequential manner. The recording about the experiment was done by Eba in such a simple way because he has to just refer to his visual cues and know exactly what to do. He did some drawing of his own to illustrate what has taken place during the experiment.

The teacher asked Eba to write two sentences to illustrate his findings in the experiment but he went ahead to write three. As the experiment was going on Eba, the teaching assistant and his mates took photographs of themselves which actually helped Eba and other pupils to remember in principle what they have done. During the lesson, Eba was very involved and cooperative in this particular lesson, his teacher knew that, he might not be fully happy so he constantly reminded him before the lesson that after the lesson, he will be allowed to play his FIFA thirteen and other children could also spend time on things of their choice which could serve as motivation or reward to everybody in the class.

The following discussion will highlight on ways that staff might use to improve upon their practices.

#### V. WAYS IN WHICH STAFF MIGHT IMPROVE THEIR PRACTICES

Although there might not be no rigidly laid down style for staff to deliver their lessons and activities however, teaching has its own methodologies and principles. Considering children on the autism spectrum, they vary from each other despite some may have one or two characteristics in common therefore one intervention or teaching approach might not suffice all Jordan, (2002).

However, here are some useful strategies that staff might use to improve upon their professional expertise. James and Brown, (1998) are of the view that lessons and activities planning should identify the central learning objectives for all pupils their strength and special interest should also be drawn upon for different needs to be met. Most children on the autism spectrum are very sensitive to sensory stimuli around them so it be advisable to look at the need profile and structure the seating arrangement in classroom to suit them. Winter (2003) contend that, the child should be seated away from the sensory distraction. For example bright light and low pitch or high pitch sounds. This assertion is also buttressed by National Autistic Society by coming out with a framework

called (SPELL) meaning structure, positive empathy, low arousal and links. Each letter has its own function in the framework. For example the "S" which talks about structure, defines how the various activities are organised which can be adapted to their needs for instance the layout of the classroom with visual time tables, visual cue cards, the type of communication and language that is used and the use colour code, for example where specific places and items in the classroom are labelled for the children to know which item to go for and places to go independently.

Most at times, children on autism spectrum need some time to process information so when talking to them their individuals name should be used to draw attention before instructing them and the type of language used should be exact, clear and comprehensive.

Again children on the autism spectrum might become anxious and take what is said to them literally so when given them instructions, it should be very explicit than making them implied.

Jordan, (1995) also support the view that mostly, verbal understanding sometimes seem difficult for the individuals on the autism spectrum so verbal instructions could be written or be in pictorial form for easy comprehension.

The TEACCH strategy which means (Treatment and Education of Autistic and related Communication handicapped Children) is one of the renowned strategies used in specialist schools which can be easily used in most the inclusive schools comprising children on the autism spectrum. Staff can use this strategy in an attempt to change the environment for the children by using certain visual support systems involving time tables and schedules, with the aim of structuring, lowering stress levels by indicating precisely what will be happening in the day to wipe up their understanding. For example when using this approach, teachers should make sure learners are given clear instructions and directions in every step in the activity which must be visually presented Baird et al (2006) in National Autistic Society resource pack.

Grandin, (2008) contend that, universally individuals on the autism spectrum are very good at learning rules than learning to develop abstract concepts which suggest that, staff should try teaching using concrete and visual learning materials. For example, they may not be able to remember how something was like in the past let alone be able to assume or predict how a situation will be in the future.

Some of these strategies might be used in specialist schools but could be adapted in the mainstream schools as well.

It is advisable for staff to give children on the autism spectrum the opportunity to start with the main work before writing the date, title and even the learning objectives. Because, most works that seem administrative could be too much for them for example asking them to copy which could divert their attention from the main learning task (Maltby, 2009).



When work is giving surrounding relationships, emotions or feelings and the views of other children in a group, there should be support giving to the children on the autism spectrum to help them understand these concepts else they will find it difficult participating in activities surrounding these lessons. At times the accepted behaviour within a group could be modelled for the whole class to see.

Furthermore, because of differences in learning patterns among the individual learners in the mainstream schools, children on the autism spectrum usually finds very daunting listening and writing at the same moment so it will be very good for teachers and professionals to give them the opportunity to watch and listen first in the classroom before taking notes in the classroom Maltby, (2009).

It is worth noting that children on the autism spectrum could find it more successful and rewarding to do a bit of task or work than struggle through to do more so staff should be careful about the amount of work given them to demonstrate their understanding of central learning objectives. Their strength should be taking in to consideration in the evaluation process among the group as well. It will be very be good to differentiate the approaches to the assessment. For example some may be asked to write the answer with sentences about what they have understood about the questions, some may be asked to record their answers using tapes.

Individuals on the autism spectrum sometimes have challenges with distinctions between school and with home regulations. They may be unable to figure out what was done at school let alone remember their homework and the most difficult aspect is when it is given without any clear instructions, this will lead them not to be able to work it out and parents might find quite difficult to assist, (Maltby, 2009).

In light of the reasons stated previously, it will be advisable for staff to clearly write the homework in a way for parents to be able to assist them. Besides, the volume of the homework should be minimised because, the child might be receiving assistance at home and their pace might seem to be slow so if the homework should be too much for them, it will prevent to them having resting time.

## VI. CONCLUSION

As a concluding part to this article, I would like to give a brief summary of some of the few points raised previously which are worth noting.

Children on the autism spectrum have so many needs levels therefore, in an attempt to educate them, staff need to differentiate the curriculum for them to be active participants but not passive ones which the Special Educational Needs Code of Practice (DfES, 2001) of England has alluded and also, I want to highlight the importance of giving proper learning opportunities and access to all manner of learners including learners with ASD. Teachers should tailor their activities towards their needs taking their learning style and academic strength into consideration by task analysing their

activities into smaller steps including using visual teaching and learning materials to bring meaning to the door steps of these individuals.

Globally, inclusion form of education is taking dominance which is moral, civic, legal and ethical rights of the child. Differentiating the curriculum to adapt to the needs of the pupils is one the core principles of inclusion which also harness the provision of quality education for all types of learners in non-discriminatory environment. Besides, for effective differentiation to take place in the school curriculum, there should be total collaboration between staff and their roles properly spelt out for effectiveness and better output. Teaching and delivering of activities and task to children on ASD should be done in a chronological order to avoid possible misunderstanding and confusion of the lessons and activities.

From the literature, it is evident that, if effective differentiation is done in the curriculum, barriers that hinder children living ASD will be removed and maximise their chances of access to the national curricular for greater results.

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