

Assessment of Teacher Knowledge of Curriculum Adaptation for Gifted Children in Rivers State, Nigeria.

Oluseyi Akintunde DADA¹,

Olusegun Olujide FAGBEMI²

Udoka, M. DAVID³

University of Calabar^{1&2},
Calabar Nigeria,

Ignatus Ajuru University of Education³,
Rivers State, Nigeria

Abstract

This study investigated teachers' knowledge of curriculum adaptation for gifted children in Rivers State, Nigeria. The study adopted descriptive survey research design. Participants were 250 regular primary school teachers drawn through stratified sampling techniques. A research question and two null hypotheses guided the study. Knowledge of Gifted Education Curriculum Adaptation Scale (KGECAS) developed by the researchers was used to collect data for the study. The instrument was validated by experts and trial tested with reliability coefficient of 0.73. Data collected was analyzed using mean, standard deviation and T-test statistics. Findings show that classroom teachers' knowledge of curriculum content, process and product adaption is low. There is no significant difference in teachers' knowledge of curriculum adaption for gifted and talented children in primary schools in Rivers State based on teachers' educational qualification ($t= .851$, $p> .05$) and their year of teaching experience ($t= -1.430$, $p> .05$). It was concluded that most primary school teachers regardless of their qualification and experience did not have sufficient knowledge of curriculum adaptation to optimize learning for the gifted and talented children in Rivers State. It was recommended that government should train teachers on how to adapt curriculum in terms of content, process and product for potential optimization of the gifted and talented children.

Keywords: Assessment, Regular Teachers' Knowledge, Curriculum Adaptation, Gifted Children

Introduction

Due to their superior intelligence, gifted children may learn faster much of what the teacher is to teach and they can learn new material in much less time than their peers. They show very clear signs of superior ability and intelligence, learn very rapidly and display knowledge of many things at a surprisingly high level of competence for their age and expected experience (Obani, 2004). This is why Okyere and Adams (2003) say the gifted child in school should be catered for early in their school lives so that as adults, they will be able to be creative in their chosen fields. These children require different educational programmes beyond those normally provided by the regular school programmes in order to realize their contribution to selves and society.

The Federal Ministry of Education (2015) states that the gifted and talented are individuals (children and adults) who have/possess very high intelligent quotient and are naturally endowed with special traits (in arts, creativity, music, leadership, intellectual precocity) and therefore find themselves insufficiently challenged by the regular school programmes. The aims and objective of gifted education are to: Provide opportunities for exceptionally gifted and talented children to develop their talents, natural endowments/traits at their own pace in the interest of the nation's economic and technological development. The achievement of this aims is only possible through a differentiated curriculum to accommodate the diversity of students intellect in the classroom.

It is estimated that students who are gifted and highly talented encompass 5 to 15% of the school age population. According to Adelodun (2010), the gifted and talented individual's contribution to national growth and development is inestimable. It is on the basis of their contribution that strategies for their education should be improved.

There are a number of ways to meet the special educational needs of the gifted and talented. One major need that all professionals have always advocated for is their curriculum differentiation through compacting or differentiating the curriculum and providing enrichment activities. Differentiation means providing gifted children with adjusted learning content, process and product of the curriculum. There are five elements of curriculum differentiation: content, process, product and environment (Winebrenner, 2001).

In teaching the gifted, it is necessary to provide environment that is stimulating, and address cognitive, physical, emotional, and social needs of gifted children in the curriculum. But the content process and product were the focus of this study because the teachers have direct control over them. Callahan (1997) noted that the teachers must let the students move quickly through the required curriculum content and onto more advanced material. In other words, there should be allowance for academic rigor. In doing this, it is desirable to differentiate the curriculum in order to address differences in the rate, depth, and pace of learning. This will enable all students in the class to learn about a specific area by creating projects at their own ability level. If gifted children are not challenged by curriculum early in their school lives, they will see learning as activities that demand no serious effort. If there is no challenge and hard work becomes secondary and boredom may set in for a gifted child (Dada, 2008). They will become perfectionists and avoid challenges, or they will search for easy-way-out solutions, such as avoiding handing in assignments, procrastination, and disorganization for fear conscientious work may reveal they are not as smart as they are assumed to be (Dada & Fagbemi, 2014). The teacher needs learn to take advantage of real-life experiences that can be translated into problem solving academics for all students and this should be given priority in their curriculum.

It is important to engage gifted students in the curriculum decision-making process, giving them an opportunity to learn how to take responsibility for their own learning. Independent projects can be assigned on the basis of ability level. The teacher must encourage creativity and original thinking among gifted students by allowing them to explore ways of connecting unrelated issues in creative ways (Dada, Bassey & Ofem, 2017). Gifted students should be guided in creating their own goals and set goals that are specific, measurable, aggressive, realistic, and within a reasonable time frame. For instance, the teacher may allow gifted children to create and publish a class newspaper to distribute (Dada, 2010). This consists of assisting students in understanding their special capabilities and the training necessary for them to reach their full potentials.

The teacher however should be mindful of building research skills for accessing information; higher level thinking skills for information processing; creative thinking and problem solving skills for flexibility in approach and generation of information; and communication skills for knowledge sharing. Having students work together, teach one another, and actively participate in various learning styles and options for a very useful and productive learning strategy. This does not make the gifted children only peer tutors in the classroom; rather the gifted student should be well challenged as well (Dada, 2009). Gifted children become defensive, angry, passive, bored, and resentful if the curriculum or the instructions are not challenging.

Achieving curriculum differentiation in a regular classroom may also involve clustering gifted children together at a table within the classroom and utilize advanced materials, as well as other suggested resources for modification of learning, to meet their exceptional needs (Heward, 2009). Allowing open forums and debates in the classroom about controversial issues will go a long way to broaden their horizon. Equally important is the need to provide plenty of opportunities for gifted children and average children to engage in social activities. Some gifted children may need help in developing their social skills.

A teacher of gifted children requires specialized training to ensure the ability to meet their gifted children's needs. The teacher should organize

resources that will enhance better work with gifted children and give the children greater control of their learning situation. Enrichment learning strategies such as supplementary books and learning tools, community resources, and the use of community members with specific skills as mentors can be helpful.

Teachers are to ensure that gifted children participate in extracurricular activities that involve academic skills. They should be provided with opportunities to interact with other gifted children across grade levels and schools through competitions or collaborative projects that enhance healthy competition. Gifted students tend to be competitive in nature. Therefore, participating in regional and national competitions such as spelling bees, science fairs, and essay competitions will be fun and challenges. This is why it is necessary for teachers to have the basic knowledge required to adapt the regular school curriculum to meet the learning and behavioral needs of gifted children in school. It in view of this that the researchers investigated teachers' knowledge of curriculum adaptation for gifted and talented children in primary schools, in Rivers State, Nigeria.

Statement of the problem

Learning is boring for gifted children because it is not challenging and motivating nor is in consonant with learning style. Lack of appropriate curriculum or classroom delivery has make many gifted children lose interest in school or experience underachievement. The resultant effect of underachievement in gifted children is poor national progress and development because the gifted child is a potential agent of development. Hence, if the gifted child is not well nurtured the society loses as such child would not be able to contribute to the development of self and the society. Meanwhile the nurturance of the gifted depends greatly on what it is taught (curriculum content), how it is taught (curriculum process) and how much it is learnt (curriculum product). The teacher is central in the process of appropriate curriculum delivery to the gifted this justifies why the study investigated the teacher's knowledge of curriculum adaptation.

Research Question and Hypotheses

A research question was answered and two hypotheses were tested in the study

Research question: What is the knowledge level of

regular teachers on curriculum content, process and product adaptation for gifted and talented children?

Null Hypotheses

H₀1: There is no significant difference between NCE and B.Ed regular teachers' knowledge on curriculum adaptation in terms content, process, product, learning environment and time.

H₀2: There is no significant difference between high and low experience regular teachers' knowledge on curriculum adaptation in terms content, process, product.

Method

This research design used in the study was descriptive survey design type because the researcher selected a representative sample from across target population of primary school teachers in Rivers State for the study. The Stratified sampling techniques were used to select 250 participants for the study. The instrument for data collection was researchers' developed titled Knowledge of Gifted Education Curriculum Adaptation Scale (KGE CAS). The scale was developed with two sections. Section A was developed to elicit information on the demographics of the respondents while section B contains 18 items of three sub-constructs. The three sub-dimensions measure the teachers' knowledge of curriculum content, process and product. Each sub-construct has 6 items. The instrument was content validated by three experts and trial tested to obtain a reliability coefficient of 0.73. Data was collected from the participants for the study and analyzed using mean, standard deviation and independent t-test.

Presentation of result

The results of the study is presented according to the stated research question and hypothesis

Research question: What is the knowledge level of regular teachers on curriculum content, process and product adaptation for gifted and talented children?

To answer the research question the data collected from the responses of the teachers were subject to analysis as presented in Table 1 below:

Table 1: Mean and Standard Deviation of Teachers' Knowledge of Curriculum Adaptation for the Gifted Student

S/N	Variable	Mean	SD	Criterion Mean	Remark
1.	Knowledge of curriculum content	1.23	.400	1.5	Low knowledge
2.	Knowledge of curriculum process	1.13	.291	1.5	Low knowledge
3.	Knowledge of curriculum product	1.18	.394	1.5	Low knowledge

Table 1 above shows regular teachers' knowledge level of curriculum content, process and product adaptation for gifted and talented children. The table shows that knowledge of content is low as

mean ($\bar{x} = 1.18$, $SD = .354$) less than the criterion mean 1.5. Therefore, knowledge level of regular teachers of curriculum content, process and product adaptation for gifted and talented children is low.

Hypothesis one

Table 2: Independent t-test analysis of teachers' knowledge of curriculum adaptation base on qualification

Qualification	n	Mean	Std. Deviation	t	Df	p-value
NCE	49	34.78	1.907	-1.430	149	.155
B.Ed	102	35.36	2.552			

Significance .05

Table 2 shows there is no significant difference between NCE and B.Ed regular teachers' knowledge of curriculum adaptation (in terms content, process, product). This null hypothesis was tested using independent t-test statistical analysis at .05 level of significance. The null hypothesis is therefore accepted because t-calculated of -1.30 is less than p-value of 0.115. This result implies that teacher's

qualification does not significantly influence their knowledge of curriculum adaption in terms of content, process, product environment and time.

Hypothesis two

Table 3: Independent t-test statistical analysis of teachers' knowledge of curriculum adaptation base on years of teaching experience

Experience	n	Mean	Std. Deviation	t	df	p-value
Below 10 years	79	35.33	2.390	.851	149	.396
Above 10 year	72	35.00	2.356			

Significance at .05

Table 3 show there is no significant difference between high and low experience regular teachers' knowledge of curriculum adaptation (in terms content, process, product). This null hypothesis was test using independent t-test statistical analysis at .05 level of significance. This is because the t-calculated of 0.851 is less than the p-value of 0.396.

Discussion of findings

This study was guided by one research question and two hypotheses. Results show that knowledge of regular classroom teachers about curriculum content, process and product adaptation is low. The findings of this study are supported by Callahan (1997) who noted that the teachers must let gifted students move quickly through the required curriculum content to provide adequate challenge. Winebrenner (2001) also posits that the yearning for learning is stifled for children who sit in classrooms surrounded by lessons they could easily teach the rest of the class. Instead, these gifted children become defensive, angry, passive, bored, and resentful and this corroborates the position of Fakolade and Archibong, (2006) that gifted education has experienced series of setbacks in many countries of the world. In Nigerian, initial proposals on gifted education met with criticisms of elitism and diversion of scarce educational resources to the benefit of children of the well-educated.

No significant difference was found between NCE and B.Ed regular teachers' knowledge of curriculum adaptation (in terms content, process, product) and revealed that teacher's qualification does not significantly influence their knowledge of curriculum adaption in terms of content, process, product environment and time. The finding however negates the position of National Planning Committee, which observed that teachers with very long teaching experience may not be tolerant enough of the sometimes erratic learning behaviours of the gifted, while inexperienced teacher may not be able to handle the very flexible, individualized curricular and management techniques that operate in a class for the gifted.

Conclusion

Teachers are not knowledgeable on curriculum content, process and product adaptation for gifted and talented children in primary schools in Port Harcourt, Rivers States. No significant difference was found in teachers' knowledge of curriculum adaption for gifted

and talented children in primary schools in Port Harcourt based on teachers' educational qualification. No significant difference was found in teachers' knowledge of curriculum adaption for gifted and talented children in primary schools in Port Harcourt based their years of experience.

Recommendations

The following recommendations were made:

1. Teachers should be trained on how to adapt curriculum in terms of content, process and product for potential optimization of the gifted and talented.
2. Curriculum adaptation for gifted and talented students should be included in all teacher education and training programmes.

References

- Adelodun, G. A. (2004). Some Determinants of Creative Behaviour among Junior Secondary School Students in Oyo, Osun and Ogun States, Nigeria. Ph.D. Thesis, Unpublished. Ibadan: University of Ibadan.
- Callahan, C. (1997). Giftedness in G.G. Bear & K.M. Minke (Eds), *Children's Needs II: Development, Problems, and Alternatives*. Bethesda, MD: National Association of School Psychologists.
- Dada, O.A. (2014). Assessment of regular teachers' knowledge on psychosocial needs of gifted children in Nigeria. *International Journal of Educational Administration, Planning and Research* 6(1), 143-15.
- Dada, O.A. & Fagbemi O.O. (2014). Education for the gifted/talented students in Nigeria: a justification. *IISTE Journal of Education and Practice* 5 (33) 9-11.

- Dada, O. A., Bassey, B. A. & Usani, J. O. (2016). Institutional predictors of academic creativity of undergraduate in universities in Cross River State. *Global Journal of Educational Research*, 15, 113-119.
- Dada, O. A. & Ani, A. U. (2019). Evaluation of instructional delivery in gifted education programme in Nigeria. *International Journal of Development Research* 9, (5), 27901-27907.
- Dada, O.A. & Fagbemi, O. O. (2015). Home and school factors as predictors of creativity among high achieving students in Ibarapa, Oyo State, Nigeria. *African Journal of Vocational Education*, 5(1), 61-72.
- Dada, O.A. (2008). Implementation of policy on gifted education. *The Exceptional Child*, 10(2), 601-608. National Centre for Exceptional Children.
- Fakolade, O.A. & Archibong, I.E. (2006). Providing for the Gifted and Talented Children with Disability in Nigeria: A Re-think. *African Journal of Cross-Cultural Psychology and Sport Facilitation*, 8(1) 71-79.
- Federal Ministry of Education, Nigeria (2015). National Policy on Education. Lagos: Government Press, p. 12-16.
- Heward, W.L. (2009). *Exceptional Children: An Introduction to Special Education* (9th Ed). New Jersey: Pearson.
- Ifedi, C. (1986). Education for Gifted Children. *Daily Times*, Feb. 10, p. 3. National Association for Gifted Students (2012). Supporting the Needs of High potential Learners. Available at <http://www.ngc.org>. Last visited on 15/03/2023.
- Obani, T.C. (2004). *Handicap, Disability and Special Education. What parents and teachers want to know*. Ibadan: Book Builders.
- Okyere, B. A. & Adams, J. S. (2003). *Introduction to special education: An African perspective*”, Legon – Accra, Ghana: Adwinsa Publications (GH) Ltd.
- Teachers First (2012). *Working with Gifted and Talented Students*. Available at www.teachersfirst.com/gifted.shtml last visited 15/03/2023
- Winebrenner, S. (2001). *Teaching Gifted Kids in the Regular Classroom: Strategies and Techniques every teacher can use to meet the Academic Needs of the Gifted and Talented* (Revised, Expanded, Updated Edition). Minneapolis: Free Spirit Publishing Inc.
- Winner, E. (1996). *Gifted Children: Myths and Realities*. New York: Basic Books.