

PERCEIVED IMPACT OF DIFFERENTIATED INSTRUCTION ON THE LEARNING OUTCOMES OF SLOW LEARNERS IN IKWUANO LOCAL GOVERNMENT EDUCATION AUTHORITY OF ABIA STATE

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Abstract

This study investigated the perceived impact of differentiated instruction on the learning outcomes of slow learners in Ikwuano Local Government Education Authority of Abia State. Three research questions guided the study. Descriptive survey research design was adopted to carry out the research. The population of the study constituted 696 public primary school teachers in the 58 public primary schools in the study area. Simple random sampling technique was used to select 150 primary school teachers from the total population. The instrument for data collection was a 28-item structured questionnaire titled “Questionnaire on the Perceived Impact of Differentiated Instruction on the Learning Outcome of Slow Learners” (QPIDILOSL) developed by the researcher. The reliability was established using Cronbach alpha and the test yielded reliability coefficient of 0.78, 0.80 and 0.80 respectively. The overall reliability coefficient of the instrument was 0.79. Mean was used for the analyze the data. The result of the findings revealed that differentiated instruction positively impacts the learning process and learning outcomes of slow learners in primary schools. The findings identified teachers’ lack of skills, large class size, inadequate resources, among others as the challenges facing the implementation of differentiated instruction. The findings also revealed that organizing workshops and seminars for teachers, allocation of adequate funding, among others are the possible solutions to the challenges facing the implementation of differentiated instructions in primary schools. Based on the findings, the researcher recommended that authorities should provide teachers with professional development on the effective use of differentiated instruction approach for an improved educational outcome of slow learners among others.

Keywords: *Differentiated instruction, learning outcomes, slow learners*

Introduction

Education is an indispensable tool for national development. The development of several nations of the world could be traced to their quality of education. Ugwude and Okika (2017) posited that education worldwide is a complex process of socialization that transforms individuals into social beings equipped with the necessary tools to participate fully in the dynamics of life. Education involves the process of transforming individuals through transfer of knowledge, morals, skills and values. Education is achieved and attained through the help of quality teachers. Teachers are indispensable human resources that plays significant role in the educational process and helping the society to raise people irrespective of their different abilities.

Slow learners are regarded as learners who are unable to cope with the school task as normal learners of the same age would cope. Slow learners are those who have low cognitive abilities as a result, experience low processing of information. Muppudathi (2014) defined slow learners as pupils who have ability to gain all the necessary academic skills with the exception that their depth and rate is below that of an average learner. Borah, (2013) stated that slow learners are the ones with slightly below average cognitive abilities. Due to this they may fail to excel in some subjects or classes. This does not necessarily mean that they have any intellectual disability. They are normal learners who cannot study under traditionally accepted educational system.

Slow learning is not a sign of low intelligence but rather a different pace of learning. Slow learners' assimilate educational content at a very slow pace while learners with disabilities have an impairment that makes learning difficult to learn. Rekah et al (2013) opined that slow learners have cognitive abilities below average, but cannot be called a disability. Slow learners

are characterized by their learning pace, assimilation, retentive ability and average or poor performance in most cases. Furthermore Patrick (2022) viewed slow learners as pupils who learn at a pace a little behind others of their age and grade level, however academic subjects are a challenge to them. According to Reddt as cited in Alhammudin, Rohman and fanani (2022), slow learners With an IQ of 80-90 are slower in capturing material in the form of symbols, abstracts, or conceptual materials. Although slow learners may have special educational needs, they do not fit into the special education services, under the category of intellectual disability.

The researcher defines slow learners as pupils who take longer time to assimilate and understand new information or skills compared to their peers. These pupils may need more time, repetition, and support to fully comprehend lesson, but can still achieve success with the right guidance and instructional strategies. The issue of slow learners as a concern to teachers has attracted the attention of parents, school administrators, curriculum developers and even researchers. Several result and strategies has been identified to enhance the learning process, learning outcome and academic performance of slow learners. These strategies include the use of individualized instruction, continuous assessment, use of graphic organizers, differentiated instructions, and among others.

Differentiated instruction is one of the teaching approach or methods that are used by teachers to meet the needs of learners. Kado, Dorji, Dem and Om, (2021) opined differentiated instruction as a modified instruction that help pupils with diverse needs and learning to master challenging academic content. Roy, Guay and Valois (2014), see differentiated instruction as a proactive and deliberate adaptations of the content, process, product, learning environment or learning time, based on the assessment of pupils' readiness or other relevant pupil characteristic

such as learning preference or interest. From the foregoing, it could be deduced that differentiated instruction is a teaching approach that takes into consideration the diverse needs of each learner. In addition Adebayo and Shumba (2014), opined that differentiated instruction is a strategy of teaching that required the teacher to have full academic achievement knowledge, including the learning needs of all pupils in their classroom. Differentiated instruction recognizes the fact that “one size fits all” approach does not benefit diverse learners. Weselby (2014) viewed differentiated instruction to mean teaching the same content to learners using varied strategies that appeal to the needs of learners or varying the level of difficulty of content based on the ability of each learner.

The first area in which the teacher will differentiate is the curricula content. Tomlinson and Moon, (2013) states that teachers can adopt the use of differentiate instruction based on learners’ learning profiles, readiness level, and interests through content, process, product, and learning environment. It constitutes of the knowledge, concepts, and skills that pupils must learn from the curriculum. According to Tomlinson and Moon (2013), diversifying the information entails employing a variety of delivery modalities such as videos, texts, lectures, audio, visual presentations, and so on. Pupils are given a chance to learn information based on their preferences for delivery technologies or formats. According to Sebihi, (2016), teachers must adapt the same material to all learners while utilizing a variety of instructional techniques to deliver the subject.

The process is the second area in which teachers can differentiate. According to Tomlinson and Moon (2013), the process is how learners take in and make meaning of the material. Teachers must create or use a variety of instructional techniques to suit the diverse

learning requirements, learning profiles, and interests while differentiating the contents. According to Aliakbari and Haghighi (2014), the procedure can be differentiated by the teacher utilizing various instructional techniques such as tiered instructions, flexible grouping, and tiered assignments. The third area to differentiate is the product. It is how pupils demonstrate what they've learnt. A teacher can Differentiate the product by giving liberty for students to show their final product of learning Teacher can design the Following assessment strategies to differentiate the product; Enabling students to decide how they want to Demonstrate their learning; (b) using graded assessment scales to monitor and assess student skills; (c) allowing Students to choose whether they want to work in groups or independently on their product; (b) Encouraging students to create their own original work.

The learning environment is the fourth area to differentiate. According to Magableh and Abdullah (2020), the learning environment refers to the many Places, situations, and cultures that make up the actual classroom setting in which students learn. To differentiate the learning environment, teachers need to consider the different learning contexts. This is a significant approach for pupils to enhance their ability to learn. The studies of several authors has identified the benefits attached to the use of differentiated instruction in the learning process, outcome and overall performance of learners. The benefits of differentiated instruction include improved learners engagement, motivation, learning outcome and overall academic performance of learners. Ismail and Allaq (2019) states that educators using differentiated instruction combined with child-centred learning strategies found positive outcomes of learners' successful learning skills and experiences, classroom engagement, learning interests or social interaction. While there are several benefits of differentiated instruction, its impact on the learning outcome of slow learners is one of the core aims of this study.

Differentiated instruction as a child-centered learning approach creates a learning environment that supports the effective teaching and learning process, which can enhance pupils' engagement, motivation, learning outcome and overall academic performance. Ismail and Allaq, (2019) states that educators emphasized that differentiated instruction places learners in the centre, provides opportunities for higher order thinking and group collaboration to solve problems, and changes learners from passive acquisition of knowledge to an active learning process through learner-centred teachings such as teamwork learning, problem-based learning or project-based learning.

Slow learners assimilate and grasp educational contents in a slow pace, hence they need an instructional method that focuses on them and addresses their limitations towards learning. Differentiated learning approach provides several learning opportunities that are capable of enhancing the learning outcome of slow learners. Ismail and Allaq, (2019) states that the combining uses of differentiated instruction and learner-centered teaching strategies provide opportunities for learners to transform their learning behaviour. On a similar note, Ismail and Allaq (2019) stated that educators using differentiated instruction combined with child-centred learning strategies found positive outcomes of learners' successful learning skills and experiences, classroom engagement, learning interests or social interaction. These benefits can result to a better learning experience, outcome and overall academic performance among slow learners.

Several researches on this subject have revealed the impact differentiated instruction has on the learning outcome of slow learners. According to Hapsari and Dahlan, (2018) studies applying differentiated instruction in mixed-ability classrooms revealed that learners

significantly and positively improved their learning achievements. Sapan and Mede, (2022) also reported that published studies that applied differentiated instruction among learners reported that learners enhanced their learning interests, developed independence and autonomy towards their learning, grew positive attitudes towards the course and were satisfied with the classes and course design. From the results and outcome of these authors, it could be deduced that differentiated instructional approach is instrumental in slow learners' motivation, learning process, learning outcome and overall academic outcome. Despite the several benefits differentiated instruction has on the learning outcome of slow learners, there are challenges and barriers that limit the effective utilization of the instructional method. For instance knowledge gap among teachers, according to Zegeye (2019), report teachers are generally aware of differentiated instruction, but lack knowledge of the content, methodological format, objective and how to assess using differentiated instruction. These challenges affect teachers' utilization of differentiated instruction and affecting their learning outcome in meeting the individual learning needs of primary school pupils, including the slow learners.

Learning outcome is a concept that describes the skills, knowledge and attitude demonstrated by pupils after being an active participant of a teaching and learning process. The skills and knowledge exhibited by pupils following an instructional process is known as learning outcome. Susanto, (2015) defined learning outcome as the result of someone participating in teaching and learning activities that have been carried out over a certain period. Susanto further stated that learning outcomes are abilities obtained after carrying out learning activities, to get learning achievements. Ntombiyendaba, (2015) posited that learning outcome is what is achieved after a pupil has undergone certain experiences at the learning institution. Furthermore, Ugenyi

(2018) stated that learning outcome can also be seen as the outcome (in scores or grades) of learners after they have been exposed to classroom instruction.

The primary level of education is a significant level of education as it lays the foundation for a child's academic journey, and it is crucial to ensure that every pupils regardless of their learning pace, receives the necessary support and guidance. Every classroom in a primary school is made up of different learners based on their level of intelligence and performance. These different learners include slow learners who struggle to keep pace with their peers academically. In recent years, differentiated instruction has emerged as a potential approach to addressing the diverse learning needs of pupils, particularly those who are identified as slow learners. Differentiated instruction has been widely advocated as an effective strategy for addressing diverse learning needs, its specific impact on the learning outcome of slow learners remains an area requiring further investigation. Therefore there is need for an analytic examination of the perceived impact of differentiated instruction on the learning outcomes of slow learners in Ikwuano Local Government Education Authority of Abia State. To achieve this purpose, the study answered the following questions;

1. What are the benefits of differentiated instruction on the learning outcomes of slow learners in primary schools in Ikwuano Local Government Education Authority?
2. What are the challenges of implementing differentiated instruction on the learning outcomes of slow learners in primary schools in Ikwuano local Government Education Authority?
3. What are the solutions to the challenges of implementing differentiated instruction on the learning outcomes of slow learners in primary schools in Ikwuano Local Government Education Authority?

Methods

Descriptive survey design was adopted for this study. The study was carried out in Ikwuano Local Government Education Authority. The population of the study consisted of all the 696 teachers in the 58 government primary schools in Ikwuano Local Government Educational Authority of Abia State. The sample size was 150 primary school teachers. The research instrument for the study was a questionnaire, designed by the researcher. The instrument was titled “Questionnaire on the Perceived Impact of Differentiated Instruction on the Learning Outcome of Slow Learners” (QPIDILOSL). The instrument consists of sections A, B, C and D. Section A sought information on respondents’ personal data. Section B contained question items on the benefits of differentiated instruction on the learning outcomes of slow learners in primary schools. Section C contained question items on the challenges of implementing differentiated instruction on the learning outcomes of slow learners in primary schools and Section D contained question items on the solution to the challenges of implementing differentiated instruction on the learning outcomes of slow learners in primary schools. The questionnaire instrument contained 28 question items in three subsections which were structured on a four point rating scale of Strongly Agree (SA) =4, Agree (A) =3, Disagree (D) =2 and Strongly Disagree (SD) =1.

To ascertain the validity of the instrument, three copies of the questionnaire including the title, purpose of study and research questions were given to three experts. Two experts in the Department of Early Childhood and Primary Education and one expert in Measurement and Evaluation Unit from the Department of Educational Foundations, both from the Faculty of Education at Nnamdi Azikiwe University, Awka. The Cronbach alpha method was used to

establish the reliability of the instrument. This was done first by administering the questionnaire to a similar group of teachers in Umuahia North Local Government Area which is outside the study area. The internal consistencies of the items in the clusters were determined using Cronbach statistics. The alpha coefficients gotten were 0.78, 0.80 and 0.80 for section B, C and D respectively, with an overall coefficient of 0.79 and these were adjudged adequate, and the instrument reliable. The instrument was administered to the respondents by the researcher with the help of two research assistants who were duly trained on how to administer the questionnaire.

Data obtained was analyzed using mean. A mean of 2.50 was used as the cutoff point for making decisions. The decision rule was that any item that scored a mean of 2.50 and above would be seen as having attracted positive responses and was agreed, while items that scored less than 2.50 would be regarded as having attracted negative responses and was disagreed.

Results

Research Question One: What are the benefits of differentiated instruction on the learning outcomes of slow learners in primary schools in Ikwuano Local Government Education Authority?

Table 1: Mean Rating of Respondents on the Benefits of Differentiated Instruction on the Learning Outcomes of Slow Learners in Primary Schools

S/N	Perceived impact of differentiated instruction on the learning outcomes of slow learners;	Mean (\bar{X})	Decision
1.	Differentiated instruction improve the academic performance of slow learners	3.06	Agree
2.	It increases engagement/participation of slow learners in academic activities	3.08	Agree
3.	It enhances self-esteem and confidence of slow learners	2.95	Agree
4.	Differentiated instruction help in the development of individual strengths of slow learners	3.02	Agree
5.	It improves slow learners' retention of information	2.90	Agree
6.	It enhances slow learners' critical thinking skills	2.80	Agree
7.	Differentiated instruction creates a more positive experience for slow learners	3.03	Agree
8.	It promotes slow learners' problem solving skills	3.01	Agree
Cluster Mean		2.98	Agree

The analysis in Table 1 above shows that item 1-8 had mean scores above the cutoff point of 2.50 mean score, with 2.98 as the cluster mean. This suggests that the teachers agree that items 1-8 are the benefits of differentiated instruction on the learning outcomes of slow learners in primary schools in Ikwuano Local Government Education Authority.

Research Question Two: What are the challenges of implementing differentiated instruction on the learning outcomes of slow learners in primary schools in Ikwuano local Government Education Authority?

Table 2: Mean Rating of Respondents on the Challenges of Implementing Differentiated Instruction on the Learning Outcomes of Slow Learners in Primary Schools

S/N	Challenges of implementing differentiated instruction;	Mean (\bar{X})	Decision
9.	Teachers lack of skills in the use of differentiated instructions	3.12	Agree
10.	Large class size affects teachers utilization of differentiated instruction	3.01	Agree
11.	Lack of adequate resources for differentiated instructions in schools	2.96	Agree
12.	Time constraints in utilizing differentiated instruction in the classroom	2.98	Agree
13.	Poor curriculum that supports the use of differentiated curriculum	3.00	Agree
14.	Difficulty in identifying and accessing individual needs of slow learners	3.21	Agree
15.	Disparity in learning styles of slow learners	2.86	Agree
16.	Difficulty in measuring pupils' progress	2.23	Disagree
17.	Lack of parental involvement in the educational process of slow learners	3.01	Agree
18.	High parental expectations towards pupils' learning and improvement	3.03	Agree
Cluster Mean		2.94	Agree

The analysis in Table 2 showed that item 9-15, 17 and 18 had a mean score above the cutoff point of 2.50 with 2.94 as the overall cluster mean. This indicates that the teachers agreed that item 9-15, 17 and 18 are the challenges of implementing differentiated instruction in primary schools. However, the teachers disagreed that item 16 with a mean score of 2.23 is not a challenge of implementing differentiated instruction in.

Research Question Three: What are the solutions to the challenges of implementing differentiated instruction on the learning outcomes of slow learners in primary schools in Ikwuano Local Government Education Authority?

Table 3: Mean Rating of Respondents on the Solutions to the Challenges of Implementation of Differentiated Instruction on the Learning Outcomes of Slow Learners in Primary Schools

S/N	Solution to the challenges of implementing differentiated instruction	Mean	Decision
19.	Organizing workshops and seminars for teachers' on the effective use of differentiated instruction	3.24	Agree
20.	Allocation of adequate fund to ensure the availability of materials for differentiated instruction	3.28	Agree
21.	Use of appropriate class size	3.19	Agree
22.	Assigning additional support staff	3.20	Agree
23.	Modification of the curriculum to accommodate the use of differentiated instructions	3.24	Agree
24.	Use of collaborative learning	2.84	Agree
25.	Utilization of Individual Education Plans (IEPs)	3.12	Agree
26.	Use of diverse learning styles in teaching slow learners	2.99	Agree
27.	Use of flexible assessment methods	3.01	Agree
28.	Involvement of parents in the educational process of pupils	3.21	Agree
Cluster Mean		3.13	Agree

The analysis in Table 3 shows that item 19-28 had mean scores above 2.50 which is the cutoff point and 3.13 as the cluster mean. This reveals that the teachers agreed that item 19-28 are the solutions to the challenges of implementing differentiated instruction on the learning outcomes of slow learners in primary schools in Ikwuano Local Government Education Authority.

Discussion of Findings

The findings of this study are discussed based on the research questions that guided the study:

The finding of this study revealed that differentiated instruction positively impacts the learning process and improve the learning outcomes of slow learners in primary schools in Ikwuano Local Government Education Authority. This finding is in harmony with Liou, Cheng, Chu, Chang, and Liu, (2023) which revealed that that the differentiated instruction increased students' learning interests, promoted focused and independent thinking, and enhanced academic achievement. The finding is also in consonance with Lester, (2023) which indicated that the students who received differentiated instruction made a significant gain in achievement; according to the data, the 2nd Period class (receiving differentiated instruction) outperformed the 3rd period class (receiving no differentiated instruction). Furthermore, the findings of this study agrees with Ismail and Allaq, (2019) who states that educators emphasized that differentiated instruction places learners in the centre, provides opportunities for higher order thinking and group collaboration to solve problems, and changes learners from passive acquisition of knowledge to an active learning process through learner-centered teachings such as teamwork learning, problem-based learning or project-based learning.

Furthermore, the finding also identified teachers' lack of skills, large class size, inadequate resources, time constraints, disjointed curriculum, difficulty in identifying slow learners needs, disparity in learning styles, disparity in learning styles, lack of parental involvement and high parental expectations towards pupils' improvement as the challenges facing the implementation of differentiated instruction in primary schools. The finding of this

study agrees with Zegeye, (2019) who reported that teachers are generally aware of differentiated instruction, but concerns such as content differentiation, methodological differentiation, objective differentiation, and assessment differentiation are less understood. The finding of this study is also in alignment with Onyishi and Sefotho, (2020) who states that many teachers failed to do much in their class room and complained of time and lack of materials, therefore rarely use differentiated approach.

Moreover, the study also revealed organizing workshops and seminars for teachers, allocation of adequate funding, use of appropriate class size, assigning additional support staff, modification of the curriculum, use of collaborative learning, utilization of Individual Educational Plans (IEPs), use of flexible assessment methods and the involvement of parents in the education of pupils are the possible solutions to the challenges facing the implementation of differentiated instructions in primary schools. The finding of this study is in harmony with Mohammed, (2021) who recommended that school administrators should organize in-service programmes, seminars, short courses and workshops on the implementation of differentiated instruction to help increase early grade teachers' understanding of differentiated instruction and their awareness of the efficacy of its practice. The finding of this study also aligns with Zegeye, (2019) who proposed that effective implementation of differentiated instruction relies on teachers' knowledge of the concept of differentiated instruction and attitudes towards differentiated instruction; Zegeye further mentioned that the teacher's willingness, commitment, preparation, and support are critical to the success of differentiated instruction.

Conclusion

This study concluded that the differentiated instructional approach is significant and positively impacts the learning process and learning outcome of primary school pupils who are slow learners. It is hoped that the implementation and utilization of differentiated instruction will enhance the learning process, learning outcome and overall academic achievement of slow learners in primary schools.

Implications of the Findings

The study revealed that differentiated instruction positively influence the learning process and the overall learning outcome of slow learners in primary schools. This finding has an implication for improving teachers training, educational policy, allocation of educational resources, and teaching practices to ensure the utilization of differentiated instructional approach for an improved learning outcome of slow learners in primary schools.

Recommendations

Based on the findings of this study, the researcher made the following recommendations.

1. Educational authorities should provide teachers with professional development on the effective use of differentiated instruction approach for an improved educational outcome of slow learners.
2. School administrators should encourage and support teachers' utilization of differentiated instructional approach to enhance the learning outcome of slow learners.
3. Curriculum developers should modify the academic curriculum in order to accommodate the utilization of differentiated instructional approach in primary schools.

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