International Journal of Teaching and Learning (INJOTEL) e-ISSN: 3025-8308
Vol. 3 No. 12 (2026), pages: 115~129

DIFFERENTIATED INSTRUCTIONAL METHOD: THE INDICES OF SUCCESS AND BOTTLENECKS IN BONNY ISLAND

Aluko, Oluyemisi Christiana and Ayantunji, Mojirade
Lead City University, Ibadan, Nigeria.
Corresponding author: yemluko@gmail.com, ayantunjimojirade@gmail.com

ABSTRACT

The mainstream system of learning often neglects students with learning needs. Hence, the study investigated the level of knowledge of Differentiated Instructional Methods (DIMs), teacher proficiency, successes, barriers to implementation, and the effect of DIMs on individual learning outcomes in Bonny Island. A structured questionnaire was administered and classroom observation was conducted for data collection. The sample population consisted of 50 teachers. Results showed that there was a high level of DIM awareness. However, the success of DIMs varied among schools. 15% of the teachers adopted DIMs. This significantly impacted the learning outcome. Inadequate training, insufficient learning resources, space, lesson preparation time, and lack of support staff were barriers to DIM implementation. A high-class population (30-44) disrupted learning. DIM implementation is imperative to cater to the needs of all children. Pre- and in-service training on DIMs and proper funding and monitoring of schools should be adopted to improve DIM application.

Keywords: Differentiation, varied needs, learning outcomes, and independent learning.

Introduction

Differentiated instructional methods (DIMs) are gaining ground in primary schools to meet the learning needs of children in mainstream classrooms. According to Gaita et al., (2022), differentiated instruction aims to ensure that every child progresses in all key skills and knowledge areas, thus encouraging them to move from their starting points to become more independent learners. In a differentiated classroom, the teacher closely assesses and monitors skills, knowledge levels, and interests to determine effective ways for all students to learn.

Pradhan and Naik (2024) stated that differentiation considers the teaching and learning of children with learning difficulties, emotional and behavioural disorders, and physical disabilities such as hearing and visual impairments. Differentiating instruction promotes engagement and inquiring about the world in a way that builds self-esteem. Furthermore, it promotes the awareness of personalized intervention in a manner that makes learning holistic. Gaitas et al. (2022) proposed that differentiated instruction with one-on-one support ensures that a child succeeds in his learning approach.

According to Langelaan et al. (2024), a teacher's perception of what will assist a child to grow in understanding and skill at a given moment is reflected through differentiated lessons. It is the teacher's responsibility to connect content, process, and product. Content

consists of the knowledge, concepts, and skills that students need to learn based on the curriculum. When products align with learning targets, a student's voice and choice flourish, while ensuring that significant content is addressed. Langelaan et al. (2024) discovered that teacher efficacy is an important dimension in implementing the process of differentiation regardless of the level or content area that is being taught. Where teacher's understanding of differentiation is lacking, implementation will be jeopardized.

Karlidag (2021) proposed that the environment influences a student's quest for knowledge and purpose. In the same vein, a teacher's goal is to create an environment that is congenial and structurally supportive for each student. According to Karlidag (2021), the physical environment should be flexible with varied resources and arrangements that make differentiation feasible for individual work as well as areas for students' collaboration as this supports a variety of ways to engage in flexible and dynamic learning.

According to Tamatea (2005), Education-For-All (EFA) is a global movement led by the United Nations Educational, Scientific and Cultural Organization (UNESCO) which aims to meet the learning needs of all children. The adoption of EFA by the government of nations necessitated effective inclusive learning where no child is left behind. Invariably, according to Valiandes (2015), 'differentiation is the pedagogical mean that supports effective instruction for all students'.

Numerous successes have been recorded in differentiation in places around the world. According to Lester (2023), students tend to comprehend little and lose focus on classroom instruction when their teachers fail to use instructional strategies that match students' learning styles. DIMs remove the barrier of lack of concentration which teaching using the 'one jacket fits all' approach portends. Studies carried out by Lester (2023) indicated that students performed better in classrooms where DIMs were methodically employed. Consequently, the importance of the careful administration of DIMs in mixed-ability classrooms was ascertained. Pradhan and Naik (2024) proposed that flexible grouping allows for addressing the learning needs of all children without leaving any child behind.

Statement of the Problem

Despite numerous educational advancements, few attempts have been made to investigate the impact of Differentiated Instructional Methods (DIMs) in primary schools in Bonny Island. Previous studies have often overlooked the importance of teacher efficacy and the availability of learning resources, which are critical factors in effective education. Therefore, this study aims to fill this gap by investigating the presence and effectiveness of DIMs in addressing the diverse learning needs of children in mainstream classrooms in Bonny Island, Nigeria.

Bonny Island's geographic isolation limits its interaction with schools in neighbouring cities, creating unique challenges for educational practices. Consequently, it is imperative to explore the level of adoption, successes, barriers, and the enhancement of individual learning

outcomes through DIMs. This research seeks to understand the pedagogical approaches of Bonny Island teachers concerning the everyday practice of DIMs. Additionally, it will probe existing barriers to the implementation of DIMs and examine their influence on individual learning outcomes in mainstream classrooms.

By addressing these critical aspects, this study aims to provide valuable insights into improving educational practices and outcomes for primary school pupils in Bonny Island, fostering a more inclusive and effective learning environment.

Aims and Objectives

(i) To explore what teachers in Bonny Island understand differentiation to be.

(ii) To assess the level of success of differentiated instructional methods in schools in Bonny Island.

(iii) To identify the barriers to the adoption of differentiation methods in Bonny Island schools.

(iv) To evaluate the extent to which differentiated instructional methods enhance individual learning outcomes.

Research Questions

1. What do teachers in Bonny understand differentiation to be?
2. What is the level of success of differentiated instructional methods in schools in Bonny Island?
3. What are the barriers to the adoption of differentiation methods in Bonny Island schools?
4. To what extent does the differentiated instructional method enhance individual learning outcomes?

Hypotheses

H_{01}: Teachers in Bonny have a varied understanding of what differentiation entails.

H_{02}: Differentiated instructional methods have a significant level of success in schools in Bonny Island.

H_{03}: There are multiple barriers to the adoption of differentiation methods in Bonny Island schools.

H_{04}: Differentiated instructional methods significantly enhance individual learning outcomes.

Theories

Vygotsky's Theory of the Zone of Proximal Development

Vygotsky's theory, often referred to as the sociocultural theory of cognitive development, emphasizes the fundamental role of social interaction in the development of cognition (Vygotsky, 1978). According to Vygotsky (1978), learning is inherently a social process, and it is through interactions with more knowledgeable others (such as teachers, parents, and peers) that children acquire new skills and knowledge.

For learning to occur, the readiness level of the children must be ascertained by ensuring that an individual learner is in his or her zone of proximal development (ZPD). The approach of using a 'single jacket fits all' for learners of varying readiness and ability levels with minor amendments does not provide accommodation for all learners as tasks may be outside the learners' zones of proximal development and this inadvertently may lead to a discrepancy between task and learner (Tomlinson et al., 2003).

The zone of proximal development denotes a point of required mastery where a child cannot independently function successfully to thrive without scaffolding or support- a zone where new learning takes place (McLeod, 2024). To attain a proximal development zone, social interaction needs to occur between a knowledgeable adult and peers.

Howard Gardener's Multiple Intelligences

Gardner's theory of multiple intelligences discredits the view that intelligence is a single, measurable unit (Tomlinson, 2014). A teacher is expected to explore an instructional technique or program that explores several intelligences. According to Gardner, focusing on a single intelligence minimizes opportunities for students to learn in diverse ways. However, multiple bits of intelligence create opportunities for all students through exposure to various methods and assessment forms.

Multiple intelligences provide opportunities for learning and problem-solving where students who are unable to excel in traditional classrooms are accommodated thereby creating opportunities for all students (McCall, 2024). The student's strengths and development are consequently enhanced. Teachers need to consider individual differences as a significant factor when discussing multiple intelligences.

Methodology

The study employed a mixed methods approach to investigate DIMs in primary schools in Bonny Island, Nigeria. Data was collected by administering structured questionnaires to schools. This was formulated to address the four research questions raised to elucidate the understanding, success, barriers, and learning outcomes of DIMs among the teachers. Permission was obtained from selected schools where the questionnaires were administered for consent. The questionnaire was structured to ensure data validation and reliability of results. The teacher's demographic information such as gender, age, length, and level of teaching experience, and knowledge of differentiated instructional methods to make differentiated instruction possible were collected. The simple random probability sampling method was employed. In total, 50 out of 500 teachers were sampled. The study population comprised private and public primary schools. Randomly selected schools were involved in the survey to ensure a fair representation of primary schools. The Pearson Chi-square test method was employed to analyse the questionnaires. The data collected were rechecked for extra themes to extract relevant information.

There were ethical considerations to mitigate issues that may arise from this study (BERA, 2004). The research was conducted to the highest standards, especially regarding research findings. As part of the consideration of respect to the community of educational researchers, other researchers' work or quotes used in this study were acknowledged and referenced appropriately.

Results and Discussion

Table 1 shows the effects of teachers' educational qualifications on the awareness and understanding of DIM. All the respondents were aware of DIM except one NCE holder among the teachers. This was also similar to their understanding of DIM except for two respondents who had NCE qualifications. Teachers' qualifications had a significant effect on the awareness ($P \leq 0.05$) and understanding of DIM ($P \leq 0.01$). Teaching is a job that is readily available to applicants irrespective of their qualifications and has become an easy route through which people get into other careers and earn an income (Ademola et al., 2021). This may account for non-teaching certificates possessed by some of the teachers in the study. Irrespective of the qualification of teachers, children are mere spectators or listeners whenever a teacher's voice prevails (Cardiff et al., 2023). If lessons were teacher-centred, learners' voices would not be heard (Chimbi and Jita, 2021). However, in reality, DIM is a teaching methodology that attempts to give a voice to the children and grants them a level of self-efficacy.

Table 1: Effects of teachers' educational qualification on the awareness and understanding of DIMs

Qualification	Number of respondents	DIM Awareness		DIM Understanding	
		No	Yes	No	Yes
B. Edu.	12	0	12	0	12
B.A	1	0	1	0	1
B.Sc.	8	0	8	0	8
HND	3	0	1	0	1
MSc.	5	0	5	0	5
MA	2	0	2	0	2
MBA	2	0	2	0	2
NCE	7	1	6	2	5
OND	2	0	2	0	2
PGDE	2	0	2	0	2
P≤0.00		0.05		0.01	

Table 2 shows the effect of years of teaching experience on awareness and understanding of DIM. The majority of the teachers gave positive responses to awareness and understanding of DIM. However, teaching experience had no significant influence on awareness and understanding of DIM among teachers in Bonny Island. Results showed that DIM is becoming popular among teachers irrespective of their teaching experience. The level of information or

access to information by teachers and students concerning DIM might have enhanced their awareness of DIM. Nowadays, information accessibility concerning the subject matter is easy (Sun and Xiao, 2024). Teachers' teaching experience may not be significant as information is readily available for self-enhancement. On-the-job training experience might also influence the knowledge of DIM as observed among the teachers. DIM is a continuous process in which teachers gain confidence on the job as they learn. However, the understanding, implementation, and success vary among teachers and schools (Lavania and Nor, 2021). Results showed that teachers were aware of and understood DIM in schools in Bonny Island.

Table 2: Effects of years of teaching experience on DIM

Experience (years)	DIM Awareness		DIM Understanding	
	No	Yes	No	Yes
1-14	1	30	2	29
15-19	0	9	0	9
30-44	0	1	0	1
P≤ 0.00	**0.82**		**0.79**	

In Table 3, respondents (33) mentioned the advantages associated with the application of DIM in schools. Six respondents admitted that DIMs help learners based on their learning styles. This formed about 6% of the respondents. Respondents (12) acknowledged that DIM helped in the delivery of lessons to meet individual learner's needs. Five respondents mentioned that DIMs involved the use of methods and activities to meet set targets. The remaining three respondents admitted that DIMs made learning interesting, enhanced fast adaptability to learning and it was a distinct act of knowledge. DIM was reported to make learning relevant and engaging to the learners and has the potential to improve learners' motivation (Geletu and Mihiretie, 2022; Anggoro et al., 2024).

Table 3: Success of DIMs

Theme	Number of respondents
Helps learners learn based on their learning styles	6
Planning and delivery of lessons/assessments that meet individual learners' needs	12
Instructional method that supports individual differences	5
Various methods and activities to meet set targets	7
Makes learning more interesting	1
Ability to adapt to fast learning	1
A distinct act of knowledge	1

In Table 4, the success of DIM was rated based on the number of students in the class. The number of students in the class ranged from 15 to 29, representing 87.5% of the student population in the classes surveyed. However, this had no significant impact on the success of DIM. DIMs aid learners' independence in carrying out their learning tasks and enhance the flexible grouping of the children according to their learning styles and abilities. Learners' interests are also easily identified and considered. DIM is beneficial, especially to children with learning challenges (Pradhan and Naik, 2024).

Table 4: Effect of number of students per class on the success of DIM

Number of students	Rates of DIM						
	1	**2**	**3**	**4**	**5**	Total	Percentage (%)
1 – 14	0	1	0	1	1	3	9.4
15 – 29	2	1	9	9	7	28	87.5
30 – 44	0	0	0	0	1	1	3.1

P= 0.46 NS

Table 5 shows that the qualifications of the teachers had no significant effect on the success of DIM in schools in Bonny Island. The scoring of the success of DIM was dispersedly rated (1 - 5) among teachers with different qualifications. Invariably, requisite knowledge of the job and years of teaching experience might have influenced the teachers' expertise. Results showed that teachers with different educational qualifications had divergent views on the success of DIM as rated. This may be because the implementation and success of DIM differ from school to school (Lavania and Nor, 2021). However, the challenges of DIM may also inform the level of success recorded by the teachers (Gheyssens, 2022). Additionally, teachers' understanding and attitude toward DIM and its implementation might also inform the success reported in this study (Kharka, 2024). Failure or success of policymakers concerning DIM might also be evident in the report of the success of DIM as stated by the teachers. Although, teachers claimed that the learning outcome was positively impacted by using DIM. This does not corroborate the results obtained as there was a disparity in the success rates of DIM as stated earlier.

It can be confirmed that DIM has attained a level of success in primary schools in Bonny Island. Teachers comprehensively carry out the ethos of DIM and encourage independence for choice and opportunity, vary the learning tasks, group the children flexibly, and scaffold all lessons (Marks, et al., 2021). However, this practice according to data collected from questionnaires is not yet pervasive. Teachers who are yet to implement DIM may lack the understanding of what to do. This is in line with the earlier report that DIM is yet to be understood and implemented in most schools (Unal et al. 2022). However, it can be concluded that some levels of success in DIMs have been achieved.

Table 5: Influence of educational qualification on the success of DIM

Educational Qualification	Rating of success in DIM (1 – 5)						
	1	**2**	**3**	**4**	**5**	Total	Percentage
B. Edu	0	1	3	3	5	12	35.3
B.A.	1	0	2	2	0	5	14.7
B.Sc.	0	1	2	2	0	5	14.7
HND	0	0	0	0	0	0	0
M. Sc.	0	1	2	2	0	5	14.7
M.A.	0	0	1	0	1	2	5.9
MBA	0	0	1	0	1	2	5.9
NCE	0	0	1	1	2	4	11.8
OND	1	0	0	1	0	2	5.9
PGDE	0	0	0	1	1	2	5.9
P = 0.49 NS						34	100

In Table 6, six respondents mentioned that teachers had a negative attitude toward DIMs. Teachers' attitude is a significant factor influencing the level of support available to children with learning challenges (Hanley and Garrity, 2024). Eight respondents stated that not all the teachers have experience with DIM. This is in line with what other researchers suggested that teachers lack the skills to implement DIMs (Gaitas et al., 2022; Langelaan, 2024). This may be due to inadequate pre-service skills (Obrovská et al., 2024).

The need for support staff was mentioned by four respondents and one respondent identified the rigorous activities of DIM in schools. Support staff enhances students' access to learning and activities that required teachers to individualize instructions were difficult for teachers to execute (Antinluoma et al., 2022). Three respondents stated that parents lacked an understanding of DIM. However, 6 respondents mentioned that resources and infrastructures were lacking in their schools. This confirmed the earlier findings that inadequate resources limit DIM application (Lavania and Nor, 2021). A lack of professional development among teachers was mentioned by one respondent. The lack of professional development of teachers is a major barrier to implementing DIM (Geletu and Mihiretie, 2022). However, formal professional development and on-the-job training have a positive change in teachers' instructional practices (Geletu and Mihiretie, 2022). It can be assumed that if the teachers knew the potential benefits associated with DIM that it can make the students successful, maybe they would have adopted it (Gheyssens et al., 2022). However, teachers assumed that coverage of the curriculum and learners' work rate is hampered when instruction is

differentiated. Supportive, positive, and adequate preparation of teachers for the implementation of DIMs, would encourage students to participate better and achieve more in their groups (Gheyssens et al., 2022).

Lack of resources, constraints of space, large class size, no support staff, and lack of preparation time for differentiated instruction were some of the barriers observed from the data gathered. This is in tandem with earlier studies that inadequate resources and shallow teachers' preparation for DIM were constraints to DIM adoption (Lavania and Nor, 2020). It could be inferred that the attitude of the teachers may be a possible reason for the trend observed (Kharka, 2024) Poor funding of the schools, poor attitude of parents, and low level of understanding and support for the philosophy of DIM may also be implicated (Motshusi et al., 2024; Eze, 2024).

Table 6: Barriers to DIM

Theme	Number of Respondents
Teachers' negative attitude	6
Not all teachers have experience with DIM.	8
Need for more support staff.	4
DIM is rigorous and not easy to practice.	1
Parents lack an understanding of DIM.	3
Absence of resources and infrastructure.	6
Lack of professional development for teachers.	1

In Table 7, eighteen respondents stated that DIMs improve the understanding of learners. Three respondents stated that DIMs boost learner's confidence, and enhance their sense of responsibility. DIM is beneficial, especially for students with learning difficulties (Pradhan and Naik, 2024). It was mentioned by one respondent that DIMs aided inclusion and teachers' creativity. Six respondents acknowledged that every learner is included when DIM is applied. Three respondents mentioned that DIM is rewarding, while one stated that it is learner-centred and enhances the diversity of approaches to learning. The findings corroborated earlier works on the subject (Valiandes, 2015).

Table 7: Learning Outcomes of DIM

Theme	Number of respondents
Improves understanding of learners and meeting learners' needs.	18
Boosts learners' confidence and sense of responsibility.	3
Aids inclusion and helps teachers to be creative.	1
Every learner is accommodated.	6
The outcome of DIM is rewarding.	3
It is learner-centred.	1
Knowledge diversity	1

Table 8 shows the respondents' impression of DIMs concerning learning in schools. Twenty-two (22) respondents had varied reactions to DIMs with learning. Two respondents each mentioned that DIMs allow both able and less able learners to be stretched to enhance further learning. This is in line with the earlier reports that stated that DIM has the potential to improve learner motivation (Sapan and Mede, 2022). Four (4) respondents stated that DIMs facilitate learners' ability and differentiated levels of needs. Two respondents mentioned that there is variation in learners in the classroom and that it enhances learners' independence. One respondent mentioned that DIMs helped to carry all learners along, as each lesson requires a different approach, DIMs enhance the pace set by teachers for children with learning challenges, and necessary intervention is provided. A respondent mentioned that DIMs enhance student learning and understanding. This is in line with earlier findings of that students' comprehension and attainment improved with the application of DIM (Lester, 2023; Sapan and Mede, 2022).

Table 8: Importance of DIMs

Theme	Number of Respondents
Stretch more able learners	2
Support less able learners	2
Facilitates learning according to learners' ability	4
Varied learners in the classroom	2
Differentiated levels of needs	4
Learners become independent	2
All learners are carried along	1
Each lesson requires a different approach	1
Teachers set the pace	1
Identify children with challenges and how to assist them	1
DIM enhances pupils' understanding	1

In Table 9, the Number of students per class significantly influenced learning using DIM ($P \leq 0.05$). Most classes had a student population of 15 – 29 students per class and scored the impact of learning using DIM between 4/5 and 5/5. This student population formed the majority (90.6%). There was a similar rating among 30 – 44 students per class that scored the impact of DIM on learning between 4/5 - 5/5 (29) while three classes with 30 – 44 students rated impactful learning using DIM between 1/5 – 3/5.

The number of students in a class does not have any significant impact on the knowledge of DIM. Rather teachers' expertise in DIM is a driving force for the application of DIM and its success as good teachers promote students' learning ((Lavania and Nor, 2020). Notwithstanding, some respondents stated that learning outcomes are greatly impacted by

the number of students per class when DIM is used. When class size is large and support is not available, learning may be impacted negatively especially when DIM is applied as a teaching methodology (Padmore and Ali, 2024). Hence, the students need support for the actualization of DIM. In the focus interview conducted, the teachers stated that the curriculum is not covered when DIM is applied and makes provision for laziness. This may account for the negative impact on the student population per class when DIM is applied. A large number of students (30-44/class) has been reported to be overbearing on the teacher and cause distraction for the children (Padmore and Ali, 2024). Students' attainment in such classes is low. This is in line with the study on exploring effective differentiated instruction in the teaching and learning of mathematics where class size had a major impact on DIM (Padmore and Ali, 2024).

Many of the teachers' responses showed that differentiation will improve learners' performances. Supportive teacher actions are found to encourage learners to perform better in school (Padmore and Ali, 2024). Teaching assistants have more opportunities to get more involved in the learning thereby improving the children's performance using DIM (Antinluoma et al., 2022). When teachers individualize instructions, learners comprehend easily, and independent learning skills improve (Obrovská et al., 2024). DIMs give students the ability to grow and be engaged, and learning is enhanced (Obrovská et al., 2024). However, teachers sometimes fail to see the impact of DIMs on learning. When learning takes place at each child's level and is developed further, a child comprehends better.

Grouping children according to their ability is a major way teachers can support learners to achieve more and improve their learning (Hussein et al. 2024). It was proposed that DIM facilitates learning, although flexible grouping is challenging. However, teachers' response to individual needs does not always happen in the classroom. This finding is in line with the assertion that teacher's beliefs and attitudes affect the overall achievement of learners (Kharka, 2024). However, the inability of learners to choose their learning is against the aim of DIM as it is meant to permit learners to make choices as the philosophy is enshrined in flexibility (Hussein et al. 2024). It was observed that whenever DIMs were implemented in the classrooms learning outcomes were impacted positively (Sapan and Mede, 2022). Findings revealed that in classes where DIM was implemented, students and their teachers interacted well (Sapan and Mede, 2022). Students carried out their learning tasks with minimal supervision, engaged in learning discussions, and had a voice (Cardiff et al. 2023). DIM enhances students' independence and gives them a voice and the learners perform better (Sapan and Mede, 2022; Chimbi and Jita, 2021).

In the classes where DIM was not visible, the children looked confused, a few children responded to the whole class teaching and the teachers focused on the few children who were responding to their questions. Questioning was the major approach used in these

classrooms and the possibility of leaving some children behind in their learning was inherent. This shows that the didactic approach alone was still being used in some of the lessons.

Table 9: Effect of number of students on Learning Outcome using DIM

Number of students	Rates of DIM					Total	Percentage (%)
	1	2	3	4	5		
1 – 14	0	1	0	0	2	3	9.4
15 – 29	1	0	1	13	14	29	90.6
30 – 44	1	1	1	13	16	32	100

P = 0.05

Conclusion

The implementation of DIMs in the classroom is still elusive to many teachers observed in Bonny Island. A lot of teachers are unaware of the different strategies they can use to differentiate instruction and those who are aware claimed that DIM is a very rigorous teaching and learning methodology. This implies that DIMs require a lot of training and experience for their implementation. The success of DIMs is a dynamic process that requires grassroots support and the involvement of all the key players in the educational sector. The adoption of DIMs as a teaching and learning framework in primary schools in Bonny Island calls for the development of appropriate regulations and guidelines that are relevant to the educational agenda.

Recommendation

It is recommended that ongoing professional development and training should be made available to teachers. Teacher training colleges should endeavor to improve their curriculum by including courses that provide trainee teachers with requisite knowledge of DIMs. Schools are encouraged to employ more support staff to make differentiated instruction teaching methodology achievable. Teachers must be given time to work collaboratively with their colleagues to implement DIM[23].

DIMs should be articulated in the education policy framework of schools in Nigeria. Sensitization sessions and ongoing professional development on differentiated instruction should be done for all stakeholders including school heads, teachers, parents, and school administrators. These sensitization efforts may help promote changes in their attitudes towards DIM. A redesigning of the curriculum to emphasize individualized learning is inevitable. Learning which takes personal interests, readiness, learning styles, skills, intelligence preferences, and culture into account is necessary for DIMs to become a reality.

References

Ademola, I. A., Okebukola, P. A., Oladejo, A. I., Onowugbeda, F. U., Gbeleyi, O. A., & Agbanimu, D. O. (2021). Teachers' qualifications and teaching experience: Impact on quality assurance in Nigeria secondary education. NOUN Journal of Management and International Development, 6(1), 260–272. ISSN: 978-978-928-241-0.

Anggoro, S., Fitriati, A., Thoe, N. K., Talib, C. A., & Mareza, L. (2024). Differentiated instruction based on multiple intelligences as promising joyful and meaningful learning. International Journal of Evaluation and Research in Education, 13(2), 1195. DOI: 10.11591/ijere.v13i2.24791.

Antinluoma, M., Ilomäki, L., & Toom, A. (2022). The involvement of teaching assistants in professional learning communities. Cogent Education, 9(1), 2145811. https://doi.org/10.1080/2331186X.2022.2145811.

BERA. (2004). Revised ethical guidelines for educational research. Retrieved from www.bera.ac.uk/publications/guides.php.

Cardiff, G., Ní Chróinín, D., Bowles, R., Fletcher, T., & Beni, S. (2023). 'Just let them have a say!' Students' perspective of student voice pedagogies in primary physical education. Irish Educational Studies, 42(4), 659–676. https://doi.org/10.1080/03323315.2023.2255987.

Chimbi, G. T., & Jita, L. C. (2021). Searching for learners' voices: Teachers' struggle to align pedagogical-reform policy with instructional practice. Journal of Pedagogy, 12(2), 61–83. DOI: 10.2478/jped-2021-0010.

Eze, B. E. (2024). Poor funding of public secondary schools in Nigeria: Implications for national development. Journal of Economics and Environmental Education (JEEE, 8(1), 76–90. ISSN: 2315-6821 (Print).

Gaitas, S., Carêto, C., Peixoto, F., & Silva, J. C. (2022). Differentiated instruction: 'To be, or not to be, that is the question'. International Journal of Inclusive Education, 28(11), 2607–2623. DOI: 10.1080/13603116.2022.2119290.

Geletu, G. M., & Mihiretie, D. M. (2022). The effects of primary school teachers' professional development activities on differentiated instructional practices and possibilities of elevating students' learning engagement. Education 3–13, 52(2), 1–16. DOI: 10.1080/03004279.2022.2143722.

Gheyssens, E., Coubergs, C., Griful-Freixenet, J., Engels, N., & Struyven, K. (2022). Differentiated instruction: The diversity of teachers' philosophy and praxis to adapt teaching to students' interests, readiness, and learning profiles. International Journal of Inclusive Education, 26(4), 1383–1400. DOI: 10.1080/13603116.2020.1812739.

Hanley, H., & Garrity, S. (2024). ECCE teachers' attitudes in Ireland towards including children with special educational needs. Irish Educational Studies, 43(4), 683–701. DOI: 10.1080/03323315.2022.2135567.

Hussein, A., Ashoor, I. A., & Majed, S. S. (2024). The effectiveness of a differentiated learning strategy using flexible groups to improve football skills and keep it. International Journal of Disabilities Sports and Health Sciences, 7(1), 236–244. https://doi.org/10.33438/ijdshs.1370182.

Karlidag, I. O. (2021). Creating learning environments in preschool classrooms: Perspectives of pre-service preschool teachers. International Journal of Progressive Education, 17(3), 327–342. DOI: 10.29329/ijpe.2021.346.21.

Kharka, D. K. (2024). Teacher's attitude towards the use of differentiated instruction (DI) and its impact in teaching. Bhutan Journal of Research and Development, 13(1), 117–135. DOI: 10.17102/bjrd.rub.13.1.08.

Langelaan, B. N., Gaikhorst, L., Smets, W., & Oostdam, R. J. (2024). Differentiating instruction: Understanding the key elements for successful teacher preparation and development. Teaching and Teacher Education, 140, 104464. https://doi.org/10.1016/j.tate.2023.104464.

Lavania, M., & Nor, F. M. (2021). Factors influencing the implementation of differentiated instruction in English language instruction in rural and urban secondary schools of Johor Bahru. Creative Education, 12(6), 1235–1246. DOI: 10.4236/ce.2021.126093.

Lavania, M., & Nor, F. B. M. (2020). Barriers in differentiated instruction: A systematic review of the literature. Journal of Critical Reviews, 7(6), 293–297. ISSN: 2394-5125.

Lester, C. (2023). What is the effect of differentiated instruction on student engagement in learning? (Doctoral Dissertation, Kennesaw State University). Retrieved from https://digitalcommons.kennesaw.edu/teachleaddoc_etd/64.

Marks, A., Woolcott, G., & Markopoulos, C. (2021). Differentiating instruction: Development of a practice framework for and with secondary mathematics classroom teachers. International Electronic Journal of Mathematics Education, 16(3), 0657. https://doi.org/10.29333/iejme/11198.

McCall, Andrei. (2024). The Intersection of Learning Styles and Multiple Intelligences: A Holistic Approach to Education.

McLeod, S., (2024). Vygotsky's theory of Cognitive Development. Simply Psychology.

Motshusi, M. C., Ngobeni, E. T., & Sepeng, P. (2024). Lack of parental involvement in the education of their children in the foundation phase: Case of selected schools in the Thabazimbi Circuit. Research in Educational Policy and Management, 6(2), 21–41. DOI: 10.46303/repam.2024.20.

Obrovská, J., Svojanovský, P., Kratochvílová, J., Lojdová, K., Tůma, F., & Vlčková, K. (2024). Promises and challenges of differentiated instruction as pre-service teachers learn to address pupil diversity. Journal of Education for Teaching, 50(3), 403–420. https://doi.org/10.1080/08878730.2024.2401559.

Padmore, E. A., & Ali, C. A. (2024). Exploring effective differentiated instruction in the teaching and learning of mathematics. ASEAN Journal for Science Education, 3(1), 41–54. Retrieved from https://ejournal.bumipublikasinusantara.id/index.php/ajsed.

Pradhan, K. C., & Naik, M. S. (2024). Inclusive education: A foundation for equality and empowerment at the elementary stage. International Journal of Multidisciplinary Research in Arts, Science and Technology, 2*(2), 1–8. DOI: 10.61778/ijmrast.v2i2.36.

Sapan, M., & Mede, E. (2022). The effects of differentiated instruction (DI) on achievement, motivation, and autonomy among English learners. Iranian Journal of Language Teaching Research, 10(1), 127–144. DOI: 10.30466/ijltr.2022.121125.

Sun, Y., & Xiao, L. (2024). Research trends and hotspots of differentiated instruction over the past two decades (2000–2020): A bibliometric analysis. Educational Studies, 50(2), 186–202. https://doi.org/10.1080/03055698.2021.1937945.

Tamatea, L. (2005). The Dakar framework: Constructing and deconstructing the global neo-liberal matrix. Globalization, Societies and Education, 3(3), 311–334. DOI: 10.1080/14767720500166993.

Tomlinson, C.A. (2014). The Differentiated Classroom: Responding to the Needs of All Learners. 2nd Edition, ASCD, Alexandria.
Tomlinson, C.A., Brighton, C., Hertzberg, H., Callahan, C.M., Moon, T.R., Brimijoin, K., Conover, L.A. and Reynolds, T., 2003. Differentiating instruction in response to student readiness, interest, and learning profile in academically diverse classrooms: A review of literature. Journal for the Education of the Gifted, 27(2-3), pp.119-145. 10.1177/016235320302700203.
Unal, A., Unal, Z., & Bodur, Y. (2022). Differentiated instruction and kindergarten through 5th grade teachers. Georgia Educational Researcher, 19(2), 1–24. DOI: 10.20429/ger.2022.190202.
Valiandes, S. (2015). Evaluating the impact of differentiated instruction on literacy and reading in mixed-ability classrooms: Quality and equity dimensions of education effectiveness. Studies in Educational Evaluation, 45, 17–26. https://doi.org/10.1016/j.stueduc.2015.02.005.
Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Cambridge, MA: Harvard University Press.