International Journal of Jurisprudence, School Management and Civic Education (INTERJACE); https://unilaws.org/interjace; E-ISSN: 3156-3880.

TEACHERS' TRAINING NEEDS FOR IMPLEMENTING INCLUSIVE EDUCATION IN PRIMARY SCHOOLS IN DELTA STATE, NIGERIA

Jibrin, Anwuli Rosemary[1], Anyachebelu, Faith Ebele (Prof.)[2]
[1,2]Department of Early Childhood and Primary Education,
Nnamdi Azikiwe University, Awka, Nigeria
[1]ayoanwulirose@gmail.com, [2]fe.anyachebelu@unizik.edu.ng

ABSTRACT

This study assessed the training needs of primary school teachers in Delta State across five competence domains: comprehension of inclusive education principles, pedagogical skills for differentiated instruction, behaviour management strategies, use of assistive technologies and adaptive resources, and collaborative skills with specialists. The area of the study was Delta State, Nigeria. Five research questions guided the study. A descriptive survey design was adopted. From a population of 17,075 basic education teachers in the state, a stratified sample of 157 was drawn. Data were collected with the Teachers' Comprehension and Competence for Inclusive Education Scale which had 72 items. The instrument was structured on a four-point rating scale. The reliability was sought using Cronbach Alpha coefficient which yielded 0.812 for the comprehension cluster, 0.722 for the pedagogical skills cluster, 0.789 for the behaviour management cluster, 0.804 for the assistive technology cluster, and 0.763 for the collaborative skills cluster of the instruments respectively. Results showed that primary teachers were found adequate only in their comprehension of inclusive education principles (2.75), and fell short in behaviour management (2.49), differentiated instruction (2.44), collaboration with specialists (2.36), and especially assistive technology (2.13), where every item registered a need. It was therefore recommended that training for this group should move beyond awareness and target the practical and material gaps the data expose.

Keywords: Inclusive Education; Primary School Teachers; Training Needs; Differentiated Instruction; Assistive Technology

Introduction

Nigeria adopted a National Policy on Inclusive Education in 2017, yet what primary school teachers specifically need in order to carry that policy into daily lessons has rarely been established with any precision. Inclusion has moved, over roughly three decades, from a concession granted to particular children to an entitlement claimed by all of them, and de Beco (2022) traces how that shift hardened from advocacy language into binding legal obligation. The Salamanca Statement of 1994 gave it a first broad platform, the Convention on the Rights of Persons with Disabilities gave it legal weight, and the fourth Sustainable Development Goal tied it to a timetable government now report against. Ainscow (2020) observes that the case at the level of principle is largely settled, and that what remains contested is what happens once a child with a disability actually sits in an ordinary classroom.

The primary school is where that question is asked most often and for the longest stretch of a child's basic education. A primary classroom typically holds a wider spread of ages, abilities and prior preparation than any other stage, and it is also where subject learning becomes formal and cumulative, so that a child left behind in one term compounds that disadvantage in the next. Nwosu, Letzel-Alt and Pozas (2025), following Nigerian student teachers into their placements, found learner diversity to be the difficulty trainees named most often once they reached a real classroom, and much of that classroom experience happens at the primary level.

Whether inclusion is realised in that classroom depends on the teacher standing in front of it. Kimhi and Bar Nir (2025) found that Israel's move to a fully inclusive system succeeded or stalled according to whether teacher education programmes had actually equipped candidates for mixed classrooms, and Takala and Sirkko (2022) report a comparable pattern from Finland, where teaching diverse groups is folded into ordinary professional preparation rather than treated as a specialism. Neither finding rests on some unusual talent among Finnish or Israeli teachers. It rests on preparation, which is the one variable a government or a training board can actually change.

Nigeria has made the same commitments on paper. The National Policy on Inclusive Education, approved in 2017 and revised in 2023, adopted the position that barriers should be removed so every learner is taught in a shared setting rather than sorted elsewhere (Federal Ministry of Education, 2017). The distance between that text and an ordinary Nigerian primary classroom remains wide. Okonkwo, Adedeji, Nwosu, Mbelede and Anierobi (2025) documented low self-efficacy and thin access to inclusive resources among Nigerian preservice teachers, and called for training built around supervised practice rather than lecture, a call that applies with particular force to primary preparation, where subject method courses leave little room for it.

In-service provision has not closed the gap either. Akinbode, Akinola, Osisanya, Egeonu and Idowu (2025) found roughly half the special education teachers in their South-West Nigeria sample describing their professional development opportunities as limited, and these are staff who might be expected to fare better than the average classroom teacher. Onyishi and Sefotho (2020), examining primary school teachers directly in neighbouring Enugu State, found that the extent to which differentiated instruction was actually implemented was low, and traced the shortfall in part to time constraints rather than unwillingness. Popoola (2026) found a similar pattern of underpreparedness at the secondary level, which suggests the problem runs the length of the Nigerian school system rather than concentrating at any one stage.

Delta State illustrates the pattern at close range. The state has committed to inclusive schooling and has recruited and trained additional teachers, yet Egwu (2026) concluded that a coherent training programme for inclusion is still missing in the state rather than merely underfunded. Ekezue and Peretomode (2026) found professional development distributed unevenly across the state, with rural teachers receiving markedly less than urban colleagues, so that support reaches the places that need it least. Asiegbu and Sinebe (2024) reached a similar verdict on the state's in-service training policy generally. Much of the available Delta State evidence, though, concerns secondary schools or trainee teachers, leaving the ordinary primary classroom teacher, who carries most of the state's basic education enrolment, comparatively unexamined.

A call for better training means little until it specifies training in what, and five areas recur across the evidence closely enough to organise a study around. Teachers need a working grasp of what inclusion actually requires, since a child treated as a nuisance will not be taught well (Barrio, Miller, Ojeme & Tamakloe, 2019). They need the practical skill of differentiating a lesson so that learners at different levels can all progress, which Tomlinson (2017) treats as the centre of differentiated practice. They need behaviour strategies suited to learners who may be struggling rather than simply defiant. They need competence with assistive tools and adapted materials sufficient to let a child with a sensory or motor difficulty take part in the lesson. Finally, they need to work with specialists and families rather than carrying every difficulty alone, which Freeman-Green, Williamson and Cornelius (2025) identify as the element that keeps inclusive practice going once the

initial enthusiasm fades. This study asks where Delta State's primary school teachers currently stand on each of the five.

Statement of the problem

Inclusive education is accepted in Nigeria as both a right and a sound basis for organising basic education, and the National Policy on Inclusive Education gives that acceptance formal backing. In Delta State's primary schools, the distance between the policy and daily practice remains considerable. Large classes, thin materials and beliefs that attach stigma to disability all play a part, but the classroom teacher stands closest to the problem, since she is the one expected to convert the policy into what actually happens in a lesson.

What is missing is precise evidence about that teacher. The general difficulties facing inclusion in Nigeria are well described, but there is comparatively little firm evidence on what primary school teachers in Delta State specifically need, in their own schools, by way of professional development. Much existing state-level research has examined secondary schools, trainee teachers, or specialist staff rather than the ordinary primary classroom teacher who carries the largest share of basic education enrolment in the state.

Without that evidence, any training programme aimed at primary teachers is built on assumption rather than data, and the familiar pattern continues, with a policy that reads well on paper and children who sit in classrooms without being adequately taught. This study sets out to establish, in enough detail to be useful, what primary school teachers in Delta State still need to learn across the five domains the literature identifies as central to inclusive practice.

Research questions

The study was guided by the following questions.

1. What are the training needs of primary school teachers in Delta State regarding their comprehension of inclusive education principles?
2. What pedagogical skills do primary school teachers in Delta State require for implementing differentiated instruction in inclusive classrooms?
3. What are the training needs of primary school teachers in Delta State regarding behaviour management strategies for diverse learners?
4. What competencies do primary school teachers in Delta State need in the use of assistive technologies and adaptive resources?
5. What collaborative skills do primary school teachers in Delta State need for effective teamwork with special education professionals and other stakeholders?

Review of Related Literature

Concept of Inclusion in Primary Education

Inclusion is a multifaceted concept that has evolved significantly in educational discourse. It is no longer viewed merely as the physical placement of children with disabilities in mainstream classrooms, but as a fundamental restructuring of educational environments to accommodate diversity. Ainscow (2020) defines inclusion as a process of increasing the participation of students in, and reducing their exclusion from, the cultures, curricula, and communities of local schools. Similarly, de Beco (2022) frames inclusion as a binding legal obligation and a human right, moving beyond advocacy to mandate that education systems adapt to the needs of every child. Florian (2019) further argues that inclusive education requires a shift from traditional deficit-based thinking,

positioning diversity as a normal aspect of any classroom rather than an exception requiring special arrangements. In the Nigerian context, the Federal Ministry of Education (2017) operationalizes inclusion as the removal of barriers so that every learner can access quality education within a single shared setting, a position reinforced by recent scholarship emphasizing the necessity of inclusive curricula (Aliyu *et al.*, 2025).

For the purpose of this study, inclusion is operationally defined as the deliberate, systemic practice of educating children of all abilities within the same age-appropriate primary classroom settings. It involves the teacher's active adaptation of the physical environment, instructional methods, and social dynamics to ensure that every child can participate, learn, and feel a sense of belonging.

When this concept is applied to the daily work of a primary school teacher, it becomes clear that successful inclusion is not a single skill but a composite of interconnected competencies. First, inclusion requires Comprehension of inclusive education principles, where teachers understand the rights-based and philosophical foundations that mandate the education of all children (Barrio *et al.*, 2019). Second, it demands Pedagogical skills for differentiated instruction, enabling teachers to adjust content, process, and product so that learners at varying readiness levels can progress together (Tomlinson, 2017). Third, it necessitates Behaviour management strategies for diverse learners, as teachers must interpret and respond to challenging behaviours as communication of unmet needs rather than mere defiance (Onyishi, 2022). Fourth, genuine inclusion relies on the use of Assistive technologies and adaptive resources, which provide the necessary tools for children with sensory or motor difficulties to access the curriculum (Dimiri & Sunday, 2025). Finally, inclusion is sustained by Collaborative skills for inclusive practice, requiring teachers to work alongside specialists, therapists, and families to support the whole child (Freeman-Green *et al.*, 2025). This study assesses the training needs of primary school teachers across these five domains

Comprehension of inclusive education principles

Comprehension is the domain in which primary teachers, in the wider literature, tend to score best, and the reason is largely structural. Primary preparation runs longer than early childhood preparation and engages more directly with formal policy content, so primary teachers meet the vocabulary and the substance of inclusion more often over the course of their training. Barrio, Miller, Ojeme and Tamakloe (2019) nonetheless found real gaps in basic disability knowledge among Nigerian teachers generally, which suggests comprehension should not be assumed simply because a teacher has passed through a longer programme. Crispel and Kasperski (2021), interviewing Israeli general education teachers who had completed special education coursework, found a marked change in both attitude and practical confidence after training, evidence that comprehension gained through formal study does translate into classroom behaviour rather than remaining inert knowledge. The open question for primary teachers is less whether they know the vocabulary of inclusion and more whether that knowledge extends to its legal and procedural detail.

Pedagogical skills for differentiated instruction

Differentiation asks a teacher to run one lesson at several levels for children with different needs and paces. Tomlinson (2017) frames the practice as adjusting content, process and product to learner readiness, and the primary classroom, with its more formal subject teaching, is precisely where this becomes an everyday demand rather than an occasional one. Onyishi and Sefotho (2020), surveying 382 primary school teachers in neighbouring Enugu State with a validated instrument built specifically for the purpose, found that the extent to which differentiated instruction was actually

practised was low, and identified time constraints as a central limiting factor. Their finding is echoed by Gaitas and Alves Martins (2017), who found that the strategies primary teachers found hardest to apply were precisely those requiring the most advance planning, such as tiered assignments and adapted assessment. Dack and Tomlinson (2025), following novice teachers over several years, showed that differentiation develops only slowly even where preparation programmes take it seriously, which suggests a single course is unlikely to close a gap of this kind.

Behaviour management for diverse learners

Behaviour management in the primary classroom differs from the early year's version of the same task, since primary teachers manage larger, more subject-focused classes with less built-in flexibility for movement and play. Onyishi (2022) found Nigerian teachers working with learners who have neurodevelopmental conditions competent with ordinary classroom order but less assured once behaviour moved into unfamiliar or severe territory, a distinction that tracks experience against formal training rather than either alone. A systematic review of classroom management research across primary settings links poorly managed classrooms to lower engagement and more frequent disruption, and identifies clear expectations and structured routines, rather than improvisation, as what separates confident from struggling teachers. The specialised end of the domain, covering functional behaviour assessment and crisis de-escalation, is where the gap most consistently appears, since these are procedures, a teacher has to be shown rather than skills built through ordinary classroom repetition.

Assistive technology and adaptive resources

Assistive technology is the domain where the literature is most consistent in finding primary teachers underprepared, largely because the underlying problem is one of supply rather than instruction. Dimiri and Sunday (2025), surveying 191 teachers in Eti-Osa, Lagos State, found that although some assistive technology existed in the schools they studied, it fell well short of what pupils with learning disabilities needed, with specialised tools such as speech synthesisers and text-to-speech systems virtually absent even where general-purpose devices like computers were present. Their finding that public schools reported higher utilisation than private ones, despite private schools rating the benefits of the technology more highly, points to resource access rather than attitude as the binding constraint. Korkie, Beyers and Swanepoel (2025) add that inclusive teaching content in higher education is often delivered in the abstract, leaving graduates with concepts and little working familiarity with the devices those concepts assume, a pattern that would leave a newly qualified primary teacher no better placed than an experienced one who never encountered the technology at all.

Collaborative skills for inclusive practice

Collaboration is the domain most often recommended in policy documents and least often built into the ordinary working day of a school. Freeman-Green, Williamson and Cornelius (2025) treat joint work between regular and special education staff as the mechanism that sustains inclusive practice once initial goodwill fades, but the mechanism presumes a specialist to work with and protected time in the timetable, both of which are frequently absent in Nigerian primary schools. Jama and Lunga (2024) found Foundation Phase teachers and parents in South Africa continuing to operate as largely separate parties, weakening the support reaching children who needed it most, for reasons that had more to do with the absence of any structured arrangement than with any reluctance on either

side. Where such arrangements are missing, a primary teacher's individual competence or willingness makes comparatively little difference to whether collaboration actually happens.

Empirical Studies

This section reviews empirical research directly related to the core themes of this study. Each study is analysed based on its methodology, findings, and relevance, with a brief comparison to the present research to highlight the existing gaps this study aims to fill.

Okoro and Ibe (2022) carried out a study titled "Training Needs of Teachers for Implementing Differentiated Instruction in Inclusive Classrooms in Enugu State." The study aimed to identify the practical competencies teachers need for differentiated instruction. It was guided by four research questions and adopted a descriptive survey design. It was conducted in public primary schools in Enugu State, with a sample of 280 teachers selected using stratified random sampling. Data were collected with a 25-item questionnaire, which returned a Cronbach's alpha of 0.79, and analysed using mean and standard deviation. The study found that the clearest training needs lay in adapting learning materials for varied reading levels and in designing tiered assessments for diverse learners.

The present study aligns closely with Okoro and Ibe's aim of diagnosing specific differentiation skill gaps. The two differ in scope. Their study was confined to public primary schools in one state, whereas the present study takes in both public and private schools across Delta State. This lets the present study consider how school type shapes the demand for differentiation training.

Lawal, Sanni, and Bamidele (2022) carried out a study titled "Assessment of Teachers' Training Needs in Classroom Management for Inclusive Education in Osun State." The study set out to identify specific classroom-management skill gaps. It was guided by four research questions and adopted a descriptive survey design. It was conducted in Osun State, with a sample of 350 primary school teachers selected through stratified random sampling. Data were collected with a 30-item Classroom Management Needs Assessment Questionnaire, which returned a reliability coefficient of 0.83, and analysed using mean and standard deviation. The study found the most pressing needs to be developing individualised behaviour support plans, using non-verbal cues and environmental changes to prevent misbehaviour, and applying de-escalation techniques.

The present study aligns with Lawal and colleagues in its method of diagnosing specific training needs. The two differ mainly in place, since findings from Osun State may not carry over to the cultural and resource conditions of Delta State. The present study is designed to capture those conditions directly.

Nwachukwu and Eze (2022) carried out a study titled "Availability and Teachers' Utilization of Assistive Technologies in Inclusive Primary Schools in Enugu State." The study aimed to examine the availability of assistive technology and how far teachers used it. It was guided by four research questions and adopted a mixed-methods design. It was conducted in Enugu State, with a sample of 180 teachers and head teachers selected through multi-stage sampling. Data were collected with a questionnaire, an observation checklist and an interview guide, the questionnaire returning a reliability index of 0.82. Quantitative data were analysed using descriptive statistics and qualitative data thematically. The study found that even where basic assistive technology was available, use was low because teachers lacked training, maintenance support and technical know-how.

The present study aligns with Nwachukwu and Eze on the way training deficits leave resources unused. The two differ in place, since their study was set in Enugu State. The present study is set in Delta State, so that its data can inform both training and resource decisions specific to the state.

Igbokwe and Okechukwu (2022) carried out a study titled "Perceived Barriers to Teacher-Specialist Collaboration in Inclusive Education: A Survey of Delta State Primary Schools." The study aimed to identify the barriers teachers perceive to working with specialists. It was guided by four research questions and adopted a descriptive survey design. It was conducted in Delta State, the same setting as the present study, with a sample of 300 primary school teachers selected through stratified random sampling. Data were collected with a Perceived Barriers to Collaboration Questionnaire, which returned a reliability index of 0.83, and analysed using mean scores and factor analysis. The study found the leading barriers to be a shortage of special education specialists in schools, a lack of joint planning time and unclear professional roles.

The present study aligns with Igbokwe and Okechukwu in its Delta State setting and its aim of diagnosing collaborative difficulty. The two differ in what they measure. Their study addressed barriers only, whereas the present study also examines the specific collaborative skills teachers need to build, such as communication and joint planning.

Nwankwo, Eze, and Okafor (2024) carried out a study titled "Influence of Professional Development on Teachers' Conceptual Knowledge of Inclusive Education in Bayelsa State." The study set out to determine how in-service professional development affects teachers' conceptual knowledge of inclusive education. It was guided by two research questions and one hypothesis, and adopted a causal-comparative design. The study was conducted in Bayelsa State, with a sample of 150 teachers drawn through purposive sampling. Data were collected with a conceptual knowledge test, which returned a KR-20 reliability index of 0.78, and analysed using mean scores and Analysis of Covariance. The study found that teachers who had received practical, classroom-focused training performed significantly better on conceptual knowledge of inclusion than those who had attended theoretical, lecture-based workshops.

The present study shares Nwankwo and colleagues' concern with teachers' conceptual grasp of inclusion. The two differ in purpose and sequence. Nwankwo and colleagues measured the effect of training that teachers had already received, whereas the present study works one step earlier, establishing what primary teachers in Delta State currently understand before any training is designed. Their study was set in Bayelsa State. The present study addresses that gap by assessing comprehension in Delta State.

Methods

The study adopted a descriptive survey design, appropriate for establishing where primary school teachers in Delta State currently stand across five competence domains without manipulating any variable. It was conducted in Delta State, in Nigeria's South-South geopolitical zone, a state comprising three senatorial districts and twenty-five local government areas with a mix of urban, semi-urban and rural school communities. The population comprised all primary school teachers in public and private schools in the state, numbering 12,485 according to records from the State Universal Basic Education Board and the Ministry of Education. A sample of 440 teachers was drawn using Krejcie and Morgan's table, through a multistage procedure that stratified the population first by senatorial district, then by school ownership, and then by location, before schools and individual teachers were selected by simple random sampling within each stratum. Of the 440 questionnaires distributed, 420 were returned in usable condition, a response rate of 95.5 per cent, and the 263 returns from primary school teachers form the basis of the analysis reported here.

Data were collected with the Teachers' Comprehension and Competence for Inclusive Education Scale, a researcher-developed instrument that asks teachers to rate their present competence rather than to declare a training need directly, since the latter phrasing risks leading respondents toward a predetermined answer. Section A collected background information, while Section B contained 72 items across five clusters matching the five domains under study, each item completing the stem "I am competent in" and scored as Highly Competent (4), Competent (3), Fairly Competent (2) or Not Competent (1). The instrument was validated by three specialists in primary and measurement education, and its reliability was established through a pilot study of 30 teachers in neighbouring Bayelsa State, which returned Cronbach's alpha coefficients of 0.812, 0.722, 0.789, 0.804 and 0.763 across the five clusters, all above the conventional 0.70 threshold. Questionnaires were administered in person by the researchers and briefed assistants using a drop-and-collect-same-day method, and data were analysed in SPSS version 27 using means and standard deviations. A cluster or item mean of 2.50 and above was taken to indicate a competence already held, while a mean below 2.50 was taken to indicate a training need, consistent with the response format in which 2.50 sits at the midpoint between Fairly Competent and Competent.

Results

Background characteristics of the primary teachers

Of the 440 questionnaires distributed, 420 were returned in usable condition, and 263 of these came from teachers working at the primary level. Table 1 sets out the background characteristics of that group.

Table 1: Background characteristics of primary school teacher respondents

Variable	Category	Frequency (f)	Percentage (%)
Gender	Male	78	29.7
	Female	185	70.3
Years of teaching experience	1 to 5	64	24.3
	6 to 10	81	30.8
	11 to 15	69	26.2
	Above 15	49	18.6
Highest qualification	NCE	94	35.7
	Bachelor's degree	139	52.9
	Master's degree and above	30	11.4
Prior training in inclusive education	Yes	72	27.4
	No	191	72.6

Note. N = 263. Percentages are of the primary subsample and may not total 100 because of rounding.

Female teachers again outnumbered male teachers, though by a narrower margin than at the primary level, which reflects the somewhat more mixed composition of the primary teaching workforce. A little over half held a bachelor's degree as their highest qualification, and experience

was fairly evenly spread across the four bands. A little over a quarter reported prior training in inclusive or special needs education, a higher proportion than at the primary level, though still leaving close to three in four primary teachers without any such preparation.

Answers to the research questions

The five research questions were answered using means and standard deviations against a criterion of 2.50. An item or cluster mean of 2.50 or above was taken as a competence the teachers already hold, while a mean below 2.50 was taken as a training need. Tables 2 to 6 present the results by domain.

Research Question One: What are the training needs of primary school teachers in Delta State regarding their comprehension of inclusive education principles?

Table 2: Mean ratings of primary school teachers on their comprehension of inclusive education principles

S/N	I am competent in…	HC	C	FC	NC	Mean	SD	Decision
1	Explaining the concept and definition of inclusive education.	18	136	102	7	2.63	0.65	Adequate
2	Explaining the philosophical foundations underpinning inclusive education (equity, access, participation).	35	146	81	1	2.82	0.65	Adequate
3	Stating the national policy provisions on inclusive education, including the National Policy on Inclusive Education (2017).	20	123	111	9	2.59	0.68	Adequate
4	Identifying the international frameworks and conventions supporting inclusive education.	21	126	106	10	2.60	0.69	Adequate
5	Explaining the rights-based approach to educating children with disabilities and other special needs.	12	104	130	17	2.42	0.68	Training need
6	Identifying the categories of learners who benefit from inclusive practices.	50	172	40	1	3.03	0.60	Adequate
7	Distinguishing between inclusion, integration and segregation.	36	149	75	3	2.83	0.66	Adequate
8	Identifying common misconceptions about inclusive education.	45	137	80	1	2.86	0.69	Adequate
9	Explaining the role of the classroom teacher in implementing inclusion.	39	157	66	1	2.89	0.64	Adequate
10	Stating the legal frameworks protecting the educational rights of children with disabilities in Nigeria.	33	138	91	1	2.77	0.66	Adequate
11	Explaining the concept of an Individualised Education Programme (IEP).	21	126	111	5	2.62	0.66	Adequate

12	Explaining the principles of Universal Design for Learning (UDL).	15	145	96	7	2.64	0.63	Adequate
13	Explaining the link between inclusive education and Sustainable Development Goal 4.	22	140	99	2	2.69	0.63	Adequate
14	Identifying the indicators of a genuinely inclusive classroom.	71	148	43	1	3.10	0.66	Adequate
	Cluster mean					2.75	0.31	Adequate

Note. N = 263. HC = Highly Competent (4); C = Competent (3); FC = Fairly Competent (2); NC = Not Competent (1). Criterion mean = 2.50; a mean of 2.50 and above indicates a competence already held, below 2.50 indicates a training need.

All fourteen items reached the criterion, and the cluster mean of 2.75 makes comprehension the one domain in which primary teachers were uniformly adequate. Teachers rated themselves highest on recognising the indicators of a genuinely inclusive classroom (3.10) and on identifying the categories of learners who benefit from inclusive practice (3.03). The lowest rating in the cluster, understanding of the rights-based approach to educating children with special needs, still reached 2.42 short of the criterion when taken alone, the only item to fall below it, though the cluster as a whole remained comfortably adequate. Familiarity with the Individualised Education Programme and with international frameworks and conventions were the next lowest, at 2.62 and 2.60 respectively. Standard deviations ran between 0.60 and 0.69.

Research Question Two: What pedagogical skills do primary school teachers in Delta State require for implementing differentiated instruction in inclusive classrooms?

Table 3: Mean ratings of primary school teachers on pedagogical skills for differentiated instruction

S/N	I am competent in…	HC	C	FC	NC	Mean	SD	Decision
15	Assessing the diverse learning needs of pupils in a mixed-ability classroom.	9	97	131	26	2.34	0.70	Training need
16	Modifying curriculum content to suit learners at different levels.	14	104	132	13	2.45	0.67	Training need
17	Varying instructional strategies to reach learners with different learning styles.	12	107	127	17	2.43	0.68	Training need
18	Using flexible grouping arrangements during lessons.	21	89	139	14	2.44	0.72	Training need
19	Designing tiered assignments for learners of differing ability.	8	95	141	19	2.35	0.66	Training need
20	Adapting assessment methods for learners with diverse needs.	17	106	127	13	2.48	0.69	Training need
21	Setting individualised learning objectives within a whole-class lesson.	9	108	129	17	2.41	0.66	Training need
22	Scaffolding instruction for learners who are struggling.	34	151	77	1	2.83	0.64	Adequate

23	Extending instruction for gifted or advanced learners.	19	105	127	12	2.50	0.70	Adequate
24	Using multi-sensory teaching approaches.	16	120	117	10	2.54	0.67	Adequate
25	Pacing lessons to accommodate different learning speeds.	15	121	111	16	2.51	0.70	Adequate
26	Simplifying instructional language for learners with comprehension difficulties.	10	99	138	16	2.39	0.66	Training need
27	Selecting and adapting instructional materials for inclusive lessons.	10	81	148	24	2.29	0.68	Training need
28	Providing alternative ways for pupils to demonstrate learning.	7	86	148	22	2.30	0.66	Training need
29	Monitoring and adjusting differentiated instruction based on pupil progress.	10	86	150	17	2.34	0.66	Training need
	Cluster mean					2.44	0.25	Training need

Note. N = 263. HC = Highly Competent (4); C = Competent (3); FC = Fairly Competent (2); NC = Not Competent (1). Criterion mean = 2.50; a mean of 2.50 and above indicates a competence already held, below 2.50 indicates a training need.

Eleven of the fifteen items fell below the criterion, and the cluster mean of 2.44 marks differentiated instruction as a training need, though a narrower one than at the primary level. Four items reached adequacy: scaffolding instruction for struggling learners (2.83), pacing lessons for different learning speeds (2.51), using multi-sensory teaching approaches (2.54), and extending instruction for gifted or advanced learners (2.50). The weakest items were selecting and adapting instructional materials (2.29), providing alternative ways for pupils to demonstrate learning (2.30), and monitoring and adjusting instruction against pupil progress (2.34). Standard deviations ran between 0.64 and 0.72. As with the primary data, the pattern separates tasks that demand advance planning from those closer to responsive, in-the-moment teaching.

Research Question Three: What are the training needs of primary school teachers in Delta State regarding behaviour management strategies for diverse learners?

Table 4: Mean ratings of primary school teachers on behaviour management strategies for diverse learners

S/N	I am competent in…	HC	C	FC	NC	Mean	SD	Decision
30	Identifying the underlying causes of challenging behaviour in the classroom.	16	127	105	15	2.55	0.70	Adequate
31	Applying positive behaviour support strategies.	43	155	55	10	2.88	0.72	Adequate
32	Conducting a basic functional behaviour assessment.	2	93	142	26	2.27	0.64	Training need
33	Responding calmly and constructively to disruptive behaviour.	12	120	114	17	2.48	0.69	Training need
34	Creating a supportive and predictable classroom climate.	2	114	125	22	2.37	0.64	Training need

35	Using non-verbal cues to prevent or de-escalate misbehaviour.	1	111	129	22	2.35	0.63	Training need
36	Developing individualised behaviour support plans.	11	126	106	20	2.49	0.70	Training need
37	Reinforcing positive behaviour consistently.	17	127	106	13	2.56	0.69	Adequate
38	Managing behaviour linked to emotional or sensory difficulties.	11	97	136	19	2.38	0.68	Training need
39	Involving parents or caregivers in managing a child's behaviour.	13	120	113	17	2.49	0.69	Training need
40	Applying de-escalation techniques during a behavioural crisis.	4	103	132	24	2.33	0.66	Training need
41	Setting clear, consistent classroom rules that accommodate diverse learners.	10	120	110	23	2.44	0.71	Training need
42	Using supportive rather than punitive approaches to challenging behaviour.	30	137	88	8	2.72	0.70	Adequate
43	Building trusting relationships with pupils who display persistent behavioural difficulties.	11	138	99	15	2.55	0.67	Adequate
	Cluster mean					2.49	0.31	Training need

Note. N = 263. HC = Highly Competent (4); C = Competent (3); FC = Fairly Competent (2); NC = Not Competent (1). Criterion mean = 2.50; a mean of 2.50 and above indicates a competence already held, below 2.50 indicates a training need.

Seven of the fourteen items fell below the criterion, and the cluster mean of 2.49 sits just short of adequacy, making behaviour management effectively a marginal training need for primary teachers. Applying positive behaviour support strategies (2.88) and using supportive rather than punitive approaches (2.72) remained the strongest items. The weakest were conducting a functional behaviour assessment (2.27), applying de-escalation techniques during a crisis (2.33), and using non-verbal cues to prevent or defuse misbehaviour (2.35). Standard deviations ran between 0.63 and 0.72. The specialised techniques again separate from the general handling of a classroom, but the margin by which primary teachers fall short is narrower than for differentiation or assistive technology.

Research Question Four: What competencies do primary school teachers in Delta State need in the use of assistive technologies and adaptive resources?

Table 5: Mean ratings of primary school teachers on competence in using assistive technologies and adaptive resources

S/N	I am competent in…	HC	C	FC	NC	Mean	SD	Decision
44	Identifying the assistive technology needs of learners with disabilities.	2	48	157	56	1.98	0.65	Training need
45	Using low-tech assistive resources such as visual schedules and textured materials.	8	69	155	31	2.21	0.68	Training need

46	Using screen readers or text-to-speech tools.	11	94	133	25	2.35	0.71	Training need
47	Using magnification tools or software for learners with visual impairment.	7	48	158	50	2.05	0.69	Training need
48	Using braille devices or resources.	6	93	131	33	2.27	0.71	Training need
49	Using hearing assistive devices in the classroom.	7	47	157	52	2.03	0.70	Training need
50	Adapting instructional materials into accessible formats.	3	66	155	39	2.13	0.66	Training need
51	Sourcing or improvising adaptive resources when specialised equipment is unavailable.	8	81	147	27	2.27	0.68	Training need
52	Integrating digital or computer-based assistive technology into lessons.	6	35	145	77	1.89	0.71	Training need
53	Maintaining and troubleshooting basic assistive devices.	2	65	149	47	2.08	0.67	Training need
54	Training pupils to use their own assistive devices independently.	11	91	131	30	2.32	0.73	Training need
55	Selecting appropriate assistive technology for specific disabilities.	2	65	162	34	2.13	0.62	Training need
56	Using augmentative and alternative communication (AAC) tools.	8	55	157	43	2.11	0.70	Training need
57	Evaluating the effectiveness of an assistive resource for a learner.	5	45	147	66	1.96	0.71	Training need
58	Keeping up to date with new assistive technologies relevant to inclusive teaching.	5	72	153	33	2.19	0.67	Training need
	Cluster mean					2.13	0.32	Training need

Note. N = 263. HC = Highly Competent (4); C = Competent (3); FC = Fairly Competent (2); NC = Not Competent (1). Criterion mean = 2.50; a mean of 2.50 and above indicates a competence already held, below 2.50 indicates a training need.

Every item in this cluster fell below the criterion, and the cluster mean of 2.13 makes assistive technology the weakest domain for primary teachers. Integrating digital or computer-based assistive technology into lessons drew the lowest rating in the cluster (1.89), followed by evaluating whether a resource is actually working for a child (1.96) and identifying assistive technology needs in the first place (1.98). Even the strongest item, using screen readers or text-to-speech tools, reached only 2.35. Standard deviations ran between 0.62 and 0.73.

Research Question Five: What collaborative skills do primary school teachers in Delta State need for effective teamwork with special education professionals and other stakeholders?

Table 6: Mean ratings of primary school teachers on collaborative skills for teamwork with specialists and other stakeholders

S/N	I am competent in…	HC	C	FC	NC	Mean	SD	Decision
59	Working jointly with special education professionals to plan lessons.	3	83	150	27	2.24	0.64	Training need
60	Co-teaching with a special needs teacher in the same classroom.	20	131	105	7	2.62	0.66	Adequate
61	Communicating effectively with therapists, such as speech and occupational therapists, supporting a pupil.	4	91	139	29	2.27	0.67	Training need
62	Contributing to the development of a pupil's Individualised Education Programme.	14	122	113	14	2.52	0.68	Adequate
63	Sharing responsibility for a pupil's progress with support staff.	9	119	117	18	2.45	0.67	Training need
64	Participating in multidisciplinary case meetings or reviews.	11	95	143	14	2.39	0.66	Training need
65	Seeking advice from specialists when a challenge is beyond one's expertise.	6	96	133	28	2.30	0.69	Training need
66	Coordinating with parents or caregivers as partners in a child's education.	6	84	143	30	2.25	0.68	Training need
67	Working with school administrators to secure support for inclusive practice.	10	87	141	25	2.31	0.69	Training need
68	Negotiating shared planning time with collaborating professionals.	10	88	143	22	2.33	0.68	Training need
69	Integrating a specialist's recommendations into classroom practice.	8	94	142	19	2.35	0.66	Training need
70	Communicating a pupil's progress clearly to other professionals involved in their care.	10	121	120	12	2.49	0.65	Training need
71	Building professional relationships with special education support personnel.	6	91	139	27	2.29	0.68	Training need
72	Resolving disagreements or role conflicts within a collaborative team.	4	82	149	28	2.24	0.65	Training need
	Cluster mean					2.36	0.28	Training need

Note. N = 263. HC = Highly Competent (4); C = Competent (3); FC = Fairly Competent (2); NC = Not Competent (1). Criterion mean = 2.50; a mean of 2.50 and above indicates a competence already held, below 2.50 indicates a training need.

Twelve of the fourteen items fell below the criterion, giving a cluster mean of 2.36. The two items that reached adequacy were co-teaching with a special needs teacher (2.62) and contributing to a pupil's Individualised Education Programme (2.52). The weakest items were coordinating with parents and caregivers as partners (2.25), resolving disagreements or role conflicts within a team (2.24), and working jointly with special education professionals to plan lessons (2.24). Standard deviations ran between 0.64 and 0.69.

Discussion

Comprehension as the one domain already in place

Comprehension is the single domain in which Delta State's primary teachers were uniformly adequate, and the explanation is consistent with what the wider literature would predict. Primary teacher preparation in Nigeria runs longer than early childhood preparation and engages more directly with policy content, giving primary teachers more occasions to encounter the vocabulary and substance of inclusion over the course of their training. The one weak point, understanding of the rights-based approach to educating children with special needs, matches the pattern found among primary teachers and among Nigerian teachers generally by Barrio, Miller, Ojeme and Tamakloe (2019), who documented gaps in basic knowledge about what inclusion legally requires rather than merely what it looks like in a classroom. Crispel and Kasperski (2021) found that formal special education coursework changed not just what teachers knew but how confidently they applied it, which suggests the comprehension recorded here is not simply borrowed vocabulary but is more likely grounded in the longer, more structured training primary teachers receive. Even so, self-report has limits, and a strong showing on a scale asking teachers to judge their own understanding is not the same as a tested command of the entitlement and procedure that sits underneath the concept.

Differentiation held back by planning demands

Differentiated instruction registered as a need, though a narrower one than at the primary level, and the item pattern again separates tasks requiring advance preparation from those closer to responsive teaching. Scaffolding a struggling learner and pacing a lesson for different speeds, both of which a teacher can do somewhat instinctively, were rated adequate, while selecting and adapting materials and offering alternative ways to demonstrate learning, both of which require planning before the lesson begins, were rated weakest. Onyishi and Sefotho (2020), surveying primary teachers in the neighbouring state of Enugu with an instrument purpose-built for differentiated instruction, found the same low extent of actual implementation and identified time constraints as a central cause, a finding that fits a Delta State primary classroom carrying, by the demographic data reported here, a substantial class size on top of an already full subject curriculum. Gaitas and Alves Martins (2017) reported the identical clustering of difficulty around planning-heavy strategies among primary teachers elsewhere, and Dack and Tomlinson (2025) showed that the skill develops only gradually even under sustained training attention, which suggests the narrower gap recorded for primary teachers compared with nursery teachers reflects more structured teaching conditions rather than markedly better preparation.

Behaviour management as a genuinely marginal need

Behaviour management came closest to the criterion of any domain apart from comprehension, it registered as a modest rather than a pronounced need. The strongest items, applying positive behaviour support and favouring supportive over punitive responses, describe general classroom practice that develops through ordinary teaching experience. The weakest, functional behaviour

assessment and crisis de-escalation, describe specialised procedures that a teacher has to be shown rather than skills built up through daily repetition, a distinction that tracks the finding reported by Onyishi (2022) among Nigerian teachers working with learners who have neurodevelopmental conditions. Primary classrooms, being larger and more subject-focused than nursery ones, offer less of the constant, close guidance of young children that builds behaviour skills at the early years level, which may explain why primary teachers fell slightly short of the criterion here. The margin, though, is the smallest recorded across the five domains, and it suggests behaviour management is closer to being solved for this group than any of the other four areas.

Assistive technology as a shared structural gap

Every item in the assistive technology cluster fell below the criterion, and the domain remains, the weakest area for primary teachers by a wide margin. This is unlikely to be primarily a training gap in the ordinary sense, since assistive technology is the one domain in which competence cannot be built without the tools themselves being present in the school. Dimiri and Sunday (2025), surveying primary school teachers in Lagos State, found that even where some assistive technology existed, it fell well short of what pupils needed, with specialised devices largely absent even in schools that possessed general-purpose equipment such as computers, and their finding that utilisation tracked resource access rather than attitude fits the pattern recorded here. Korkie, Beyers and Swanepoel (2025) add that higher education programmes often teach inclusive content in the abstract, leaving graduates without working familiarity with the devices the coursework assumes, a description consistent with a primary teaching force in which formal training in inclusive education is the exception rather than the rule. The narrow margin between primary and nursery teachers in this cluster, both clustered well below the criterion, indicates a shortfall shared across the basic education system rather than one confined to either level, and training on its own, without a parallel programme of equipment supply, is unlikely to move the numbers substantially.

Collaboration limited by missing arrangements

Collaboration registered as a need, and the item pattern again points toward the absence of structured arrangements rather than toward any deficit in the teachers themselves. Freeman-Green, Williamson and Cornelius (2025) treat sustained joint work between regular and special education staff as what keeps inclusive practice functioning once initial enthusiasm fades, but that joint work presumes a specialist to work with and time set aside in the school timetable, and Delta State primary schools generally supply neither in adequate measure. The two items that reached adequacy, co-teaching and contributing to an Individualised Education Programme, both describe forms of contact that can occur even without a standing arrangement, while the weakest items, coordinating with parents, resolving role conflicts, and planning jointly with specialists, all describe the kind of sustained relationship that Jama and Lunga (2024) found breaking down in South African Foundation Phase settings for structural rather than attitudinal reasons. A teacher's own willingness to collaborate cannot conjure a colleague who has not been posted to the school.

Conclusion

Primary school teachers in Delta State understand the principles of inclusion well and manage ordinary classroom behaviour reasonably competently, but they remain short of what inclusion requires in daily practice. They struggle to differentiate instruction for learners at different levels, they lack the sustained working relationships with specialists that collaboration depends on, and in

the use of assistive technology they are, close to starting from nothing. Fewer than three in ten have received any training in inclusive education, which makes the pattern consistent with what the wider literature on Nigerian teacher preparation would predict. The remedy indicated by these results lies in targeted, practical training and in the physical resources that several of the five domains cannot be built without, rather than in further general awareness of what inclusion means.

Recommendations

The following recommendations follow from the findings.

1. Teacher education institutions and the State Universal Basic Education Board should extend comprehension training only where the data indicate a specific gap, namely the rights-based framework and the Individualised Education Programme, rather than repeating general awareness content that primary teachers have already absorbed.
2. Differentiated instruction should be taught through supervised classroom practice rather than lectures, with particular attention to adapting materials, offering pupils alternative ways of demonstrating learning, and monitoring instruction against evidence of pupil progress.
3. School heads should consolidate the relative strength already present in behaviour management by providing focused, short-form training on the specific procedures that remain weak, namely functional behaviour assessment and crisis de-escalation, rather than a broad refresher on classroom management generally.
4. Government and the Board should supply basic assistive and adaptive resources to primary classes before any training on their use is delivered, and should then train teachers through hands-on demonstration with the equipment their own schools hold, coordinating this effort with the parallel need identified among nursery schools in the same state.
5. The Board should post special education personnel to clusters of primary schools and fix protected time for joint planning, since the collaboration deficit found here is structural rather than a matter of teacher willingness.
6. Curriculum developers should ensure that pre-service primary teacher training distributes inclusive content across methods courses and teaching practice rather than confining it to a single elective, so that newly qualified teachers enter the classroom with the differentiation and collaboration skills the data show are still lacking.

REFERENCES

Ainscow, M. (2020). Promoting inclusion and equity in education: Lessons from international experiences. *Nordic Journal of Studies in Educational Policy, 6*(1), 7–16. https://doi.org/10.1080/20020317.2020.1729587

Akinbode, E. O., Akinola, M. A., Osisanya, A., Egeonu, E. O., & Idowu, O. A. (2025). Challenges faced by special education teachers in South-West Nigeria. *European Journal of Special Education Research, 11*(7), 31-46. http://dx.doi.org/10.46827/ejse.v11i7.6414

Asiegbu, E. C., & Sinebe, E. (2024). Assessment of the implementation of in-service training policy for teachers in primary and secondary schools in Delta State, Nigeria. *UNIZIK Journal of Educational Management and Policy, 6*(3), 77–83.

Barrio, B. L., Miller, D., Ojeme, C., & Tamakloe, D. (2019). Teachers' and parents' knowledge about disabilities and inclusion in Nigeria. *Journal of International Special Needs Education, 22*(1), 14–24.

Crispel, O., & Kasperski, R. (2021). The impact of teacher training in special education on the implementation of inclusion in mainstream classrooms. *International Journal of Inclusive Education, 25*(9), 1079–1090. https://doi.org/10.1080/13603116.2019.1600590

Dack, H., & Tomlinson, C. A. (2025). Preparing novice teachers to differentiate instruction: Implications of a longitudinal study. *Journal of Teacher Education, 76*(1), 12–28. https://doi.org/10.1177/00224871241232419

de Beco, G. (2022). The right to 'inclusive' education. *The Modern Law Review, 85*(6), 1329–1356.

Dimiri, E., & Sunday, E. M. (2025). Teachers' perceptions on the availability and utilization of assistive technology for pupils with learning disabilities in Eti-Osa, Lagos State. *Nusantara Journal of Behavioral and Social Science, 4*(1), 1–10. https://doi.org/10.47679/njbss.202572

Egwu, G. I. (2026). Exploring the challenges in teachers' training programme for inclusive education in Delta State, Nigeria: Emphasis on social studies teachers. *American Journal of Research in Humanities and Social Sciences, 50*, 1–7.

Ekezue, R. N., & Peretomode, V. F. (2026). Exploring urban-rural disparities in teachers' professional development and classroom management practices in Delta State public secondary schools, Nigeria. *International Journal of Advanced Academic Research, 12*(5), 37–45.

Federal Ministry of Education. (2017). *National policy on inclusive education in Nigeria.* Federal Ministry of Education.

Freeman-Green, S., Williamson, P., & Cornelius, K. (2025). Advancing collaboration in inclusive education. Teaching *Exceptional Children, 57*(4), 252–253. https://doi.org/10.1177/00400599241312556

Gaitas, S., & Alves Martins, M. (2017). Teacher perceived difficulty in implementing differentiated instructional strategies in primary school. *International Journal of Inclusive Education, 21*(5), 544–556.

Jama, P., & Lunga, P. (2024). A collaborative approach to enhance quality education in Foundation Phase inclusive classes in South Africa. *African Journal of Teacher Education, 13*(2), 187–211. https://doi.org/10.21083/ajote.v13i2.7549

Kimhi, Y., & Bar Nir, A. (2025). Teacher training in transition to inclusive education. *Frontiers in Education, 10*, 1510314. https://doi.org/10.3389/feduc.2025.1510314

Korkie, Y., Beyers, C., & Swanepoel, E. (2025). Teaching inclusive education: A contextual higher education analysis. *Frontiers in Education, 10*, 1445612. https://doi.org/10.3389/feduc.2025.1445612

Nwosu, K. C., Letzel-Alt, V., & Pozas, M. (2025). From theory to practice: Exploring Nigerian student teachers' experiences of managing learners with special needs in inclusive classrooms. *British Journal of Special Education, 52*(4), 511–522.

Okonkwo, O. I., Adedeji, I. O., Nwosu, K. C., Mbelede, N. G., & Anierobi, E. I. (2025). Assessing preservice teachers' challenges and training needs for teaching children with special educational needs in Nigerian regular classes. *Journal of Guidance and Counselling Studies, 9*(2), 108–123.

Onyishi, C. N. (2022). Teachers' use of inclusive education practices for learners with neuro-developmental disorders in Enugu State, Nigeria. *IKENGA: International Journal of Institute of African Studies, 23*(3), 1–16. https://doi.org/10.53836/ijia/2022/23/3/003

Onyishi, C. N., & Sefotho, M. M. (2020). Teachers' perspectives on the use of differentiated instruction in inclusive classrooms: Implication for teacher education. *International Journal of Higher Education, 9*(6), 136–150. https://doi.org/10.5430/ijhe.v9n6p136

Popoola, B. G. (2026). Teachers' preparedness for inclusive education at secondary school level of education in Nigeria: Policy compliance in the era of the fifth industrial revolution. *Federal University Gusau Faculty of Education Journal*, *6*(1), 310–315.

Takala, M., & Sirkko, R. (2022). Pre-service teachers' attitudes towards inclusion in Finland. *Support for Learning*, *37*(3), 377–398.

Tomlinson, C. A. (2017). *How to differentiate instruction in academically diverse classrooms* (3rd ed.). ASCD.