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Feedback Loop Implementation as a Pathway to Inclusive Lifelong Learning among Hearing-Impaired Students in Rivers State

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Abstract

This study set out to examine how feedback loops are being used to support inclusive lifelong learning for hearing-impaired students in Rivers State, Nigeria. Attention was given to three main channels: feedback from students to teachers on how accessible lessons are, feedback from teachers to school administrators about missing resources and training needs, and parents' views on community-to-policy feedback concerning cultural attitudes and inclusion. A descriptive survey design was used. Seventeen special educators and twenty-nine parents were drawn using a purposive sampling technique from the two government-approved special needs schools in the state. The instrument was a researcher-developed questionnaire titled Feedback Loop Implementation and Inclusive Lifelong Learning Questionnaire (FLILLQ). Its overall reliability stood at Cronbach's alpha of 0.80. Mean and standard deviation answered the research questions, while independent-samples t-tests tested the hypotheses at the 0.05 level. Results showed that student-to-teacher feedback loops operated at a moderate level, teacher-to-administrator loops at a moderate-to-high level, and community-to-policy loops also at a moderate level. Differences based on length of teacher training were not statistically significant for either student-to-teacher feedback, $t(16) = -0.464$, $p = .649$, or teacher-to-administrator feedback, $t(16) = -0.998$, $p = .333$ (bootstrap results with 5,000 resample confirmed these non-significant findings). The findings suggest that when schools put in place clearer and more regular feedback channels involving teachers, administrators, parents and the wider community, institutional response improves and better lifelong learning opportunities open up for hearing-impaired learners.

Keywords: Inclusive Education; Lifelong Learning; Feedback Loops; Hearing Impairment; Instructional Accessibility

Introduction

Inclusive education has emerged as a global priority because it aims to provide all learners, irrespective of disability or other kinds of diversity, with equitable chances to engage, learn and realize their full potential. This commitment is reflected in international frameworks such as the Salamanca Statement (UNESCO, 1994), the United Nations Convention on the Rights of Persons with Disabilities (United Nations, 2006) and the Education 2030 Framework for Action (UNESCO, 2016), which advocate for educational systems that are inclusive of the diversity of learners and support lifelong learning. The current ideas on inclusive education go beyond the mere enrolments of children in schools to emphasise the value of meaningful involvement, excellent learning experiences and the continuing growth of all learners in supportive educational environments. (UNESCO, 2020).

Thus, lifelong learning has become an important aim of inclusive education in acknowledgement of learning as a lifelong process. Lifelong learning promotes communication competence, academic success, employability, independent living, and social inclusion among learners with hearing impairment (World Health Organisation [WHO], 2021). These results, however, depend on education systems that can adequately adapt to learners' changing needs through accessible instruction, adequate support services, effective school leadership and ongoing institutional improvement (UNESCO, 2021).

Despite increasing international commitment to inclusive education, effective classroom practice remains a key barrier. Learners with hearing impairment continue to face barriers to meaningful participation due to inadequate teacher preparation, limited instructional adaptations, insufficient assistive technologies, weak institutional support, and negative societal attitudes (Florian & Black-Hawkins, 2011; Marschark & Knoors, 2020; WHO, 2021). These issues are especially acute in underdeveloped countries, where restrictions on resources and shortcomings in implementation sometimes impede the success of efforts at inclusive education.

Nigeria has reaffirmed its commitment to inclusive education through the Discrimination Against Persons with Disabilities (Prohibition) Act (2018) and the new National Policy on Inclusive Education (2023). The policy aims at strengthening inclusive education through improved access and participation, creation of enabling learning environments, capacity building of stakeholders, promotion of collaboration, ensuring ongoing monitoring and evaluation and enabling learners to attain their maximum potential, irrespective of disability. It also defines inclusive education as a joint responsibility of government, schools, teachers, parents, communities and other stakeholders. These projects aim to increase access to school, engagement in education and learning results for persons with disabilities. Yet, the increasing empirical evidence continues to show the disconnect between policy goals and classroom realities, with specific reference to teacher competence, instructional resources, institutional coordination and stakeholder participation (Ukala & Adieme, 2024; Osuji & Semenitari, 2025). These differences indicate that policy improvements alone are not sufficient to provide successful inclusion without systems in schools to identify obstacles in the implementation and respond systematically to the needs of the learners.

One mechanism widely acknowledged for the enhancement of educational quality is the establishment of feedback loops. Feedback loops are systematic procedures of communicating, interpreting, and using information produced within an educational system to inform subsequent decisions and actions. Within schools, they provide opportunities for sustained engagement between students, teachers, administrators, parents, communities and policymakers, supporting evidence-informed decision-making, institutional learning and continual improvement (Carless & Winstone, 2023; Nicol, 2021). This systems perspective is closely aligned with the National Policy on Inclusive Education (Federal Ministry of Education, 2023), which highlights stakeholder engagement, ongoing monitoring and evaluation, capacity building, collaborative partnerships, and regular review of implementation as key mechanisms for improving inclusive education.

Effective feedback systems are especially critical for students with hearing loss, as communication is both the basis of learning and one of its biggest problems. Student-to-teacher feedback allows students to tell their teachers what is getting in the way of their instruction and what they need to learn, so teachers can change their teaching tactics and make classrooms more accessible. Teachers' feedback to administrators gives school leaders information about resource deficits, professional development needs, and institutional barriers that impede inclusive practice. Likewise, community-to-policy input allows parents and community stakeholders to influence educational planning, contest discriminatory attitudes, and advocate for policies that promote inclusion beyond the classroom (Epstein, 2018; Goodall, 2021). The focus on stakeholder linkages is premised on the policy's expectation that parents, communities, school-based management committees, teachers, administrators and government agencies should be actively involved in the implementation, monitoring and improvement of inclusive education through collaborative decision-making and continuous communication.

Feedback is increasingly regarded as a key driver of educational improvement, but empirical information investigating the implementation of feedback loops as an integrated institutional system in special needs education is lacking. Past research in Nigeria has primarily focused on inclusive education from a narrow scope, including teacher preparedness,

resource availability, administrative strategies, assistive technologies, or policy execution (Ogboe, 2024; Richard & Ndimele, 2026). Relatively little emphasis has been paid to understanding the multidirectional feedback between students, teachers, administrators, parents, communities, and policymakers, and how they collectively enable inclusive lifelong learning for hearing-impaired children. This gap is more visible in Rivers State, where empirical evidence on the use of feedback systems in special needs schools are still lacking.

Moreover, although there is widespread agreement on the need for communication among educational stakeholders, there is a lack of data on the relative contribution of different feedback paths to institutional responsiveness and learner outcomes. Little is known about the implementation of student-to-teacher feedback on instructional accessibility, teacher-to-administrator feedback on resource and training deficits, and community-to-policy feedback on cultural attitudes and educational inclusion within a unified framework. Together, these aspects provide a deeper view of how educational systems acknowledge obstacles, respond to learners' needs and sustain inclusive lifelong learning.

Based on the above, this study investigated Feedback Loop Implementation as the Architect of Inclusive Lifelong Learning among Hearing-Impaired Students in Rivers State. In particular, it explores the student-teacher feedback loops around instructional accessibility, the teacher-administrator feedback loops around resource and training deficits, and parents' perceptions of community-to-policy feedback loops around cultural attitudes and inclusion. The study thus provides empirical information that can impact educational policy, reinforce institutional practice, promote stakeholder engagement and expand lifelong learning opportunities for hearing-impaired learners in Rivers State by investigating these interrelated feedback mechanisms.

Inclusive lifelong learning has become a core principle of modern education, representing the convergence of inclusive education and lifelong learning as mutually reinforcing strategies for educational progress. Inclusive education aims to provide equal access to, participation in, and success for all learners, regardless of disability or other disadvantages, whereas lifelong learning understands education as a continuous process that extends beyond formal education to include personal, social and professional development throughout life (UNESCO, 2020, 2021; United Nations, 2015). Taken together, these viewpoints move the focus from simple school enrolment to the construction of responsive education systems that allow learners to develop competencies, adapt to the evolving demands of society and participate fully in society.

Inclusive lifelong learning for learners with hearing impairment goes beyond physical access to education. It involves communication-friendly venues, customized instruction, accessible learning resources, and institutional support for meaningful engagement and continual learning (WHO, 2021; Marschark & Knoors, 2020). International frameworks, such as the Salamanca Statement and the United Nations Convention on the Rights of Persons with Disabilities, emphasise that educational institutions must remove barriers to participation and respond to learner diversity, rather than requiring learners to adapt to inflexible systems (UNESCO, 1994; United Nations, 2006). Similarly, recent scholarly work contends that successful inclusion should be assessed not just in terms of access but also learner engagement, academic achievement, social belonging and longer-term educational outcomes (Ainscow, 2020; EASNIE, 2022). However, barriers to meaningful participation for learners with disabilities persist due to inadequate instructional adaptation, lack of specialized personnel, inadequate access to learning resources and poor institutional responsiveness, which underscores the need for mechanisms to facilitate continued educational improvement (UNESCO, 2020; Villarente et al., 2024).

One such approach is the introduction of feedback loops. Feedback has often been defined as information given by teachers to improve the performance of learners (Hattie & Timperley, 2007). However, recent approaches consider feedback as a multidirectional and collaborative process that involves learners, teachers, school leaders, parents, communities, and policymakers (Carless & Winstone, 2023). Synthesised evidence on teaching effectiveness similarly identifies feedback as one of the strongest influences on learner achievement, particularly when it informs teachers about how students are responding to instruction (Hattie, 2023). Feedback loops refer to the repetitive cycles of creating, sharing, understanding, responding to, tracking and assessing information to enhance future choices and actions (Senge, 2006; OECD, 2020). It is based on systems theory and organizational learning. Implementation of a

feedback loop, rather than one-way communication, is aimed at institutional learning by creating a process whereby stakeholder input results in measurable changes in instruction, administration, or policy.

In inclusive education, feedback loops support schools to identify barriers to learning, evaluate interventions, enhance instructional practices, improve leadership and support evidence-informed decision-making (UNESCO, 2020). They also stimulate reciprocal communication among learners, teachers, administrators, parents, and policymakers, boosting institutional responsiveness and accountability. Structured feedback systems are useful for hearing-impaired learners, whose participation in education is contingent upon effective communication, in identifying barriers that might otherwise be overlooked in terms of classroom interaction, instructional accessibility, resource adequacy, and policy implementation (WHO, 2021; Marschark & Knoors, 2020). Feedback loops are therefore a suitable systems framework to reinforce inclusive lifelong learning.

One of the many facets of educational feedback is student-to-teacher feedback, which is important since it allows learners to express their experiences of instruction, accessibility concerns, and learning preferences that can inform improvements in the classroom (Carless & Winstone, 2023; Nicol, 2021). In modern educational thinking, learners are increasingly seen as active participants in educational quality rather than passive recipients of teaching. For learners who are deaf or hard of hearing, such feedback goes beyond academic performance to include communication accessibility, visibility of instructional demonstrations, effectiveness of sign language interpretation, classroom acoustics, assistive technologies, and other factors that affect participation (WHO, 2021). Student feedback to teachers provides ongoing information on the learner experience and allows the teacher to adjust teaching tactics, engage in varied pedagogies, and increase instructional accessibility. But its success relies on teachers' capacity for inclusive pedagogy, disability-sensitive communication, formative assessment and assistive technologies (Florian & Black-Hawkins, 2011). While the Nigerian literature has acknowledged the significance of tailoring instruction to learners' needs, little research has focused on learners as active agents of instructional change through systematic feedback systems.

Another important element of institutional improvement is input from teachers to administrators, as teachers have a first-hand understanding of classroom reality, learner support requirements, instructional obstacles, and resource inadequacies. Current discourses on educational leadership encourage collaborative decision-making, using teachers' professional experiences to guide administrative planning, resource allocation, professional development and policy implementation (OECD, 2020; Fullan, 2020). Leaders who listen to teachers' experiences and use them to shape professional development and organizational decisions are also better placed to build school conditions that support effective teaching and learning (Leithwood et al., 2020). This is especially true for schools catering to deaf or hard of hearing learners, where effective inclusion hinges on the availability of specialized instructional materials, assistive devices, experienced personnel, and ongoing professional development (UNESCO, 2020; WHO, 2021). Lack of resources and lack of teacher preparation are repeatedly identified in research as key impediments to inclusive education. However, there is also evidence that these problems continue to exist because of the poor quality of communication between teachers and administrators, and so institutional responses are slow (Villarente et al., 2024). Effective feedback from teachers to administrators thus reinforces institutional learning by ensuring that classroom-level experiences immediately drive leadership decisions, resource provision and capacity building.

Feedback loops from community to policy expand educational development beyond schools by allowing ongoing communication between families, communities, disability advocacy groups and legislators. Current educational governance acknowledges that inclusive education is enhanced when policymaking, implementation, monitoring and evaluation are guided by the experiences of stakeholders directly impacted by educational decisions (UNESCO, 2021; OECD, 2020). Successful inclusion of hearing-impaired learners depends on classroom practices, supportive home situations, community acceptance, availability of specialized assistance, and responsive governmental policies (WHO, 2021; UNICEF, 2021). Parents, in particular, hold significant knowledge of their children's communication needs, learning experiences and social development, and are crucial collaborators in educational planning and policy creation (Epstein, 2018; Goodall, 2021). Parents are also more likely to take part in their children's schooling when schools actively invite their views and make it clear that those views are valued (Hoover-Dempsey & Sandler, 2005). Positive cultural attitudes about disability promote educational participation and collaborative partnerships, but stigma and

misinformation can restrict access, parental engagement and policy effectiveness (WHO, 2021; United Nations, 2022). Effective community-to-policy feedback loops are therefore structures that utilize community experiences to inspire educational reforms, enhance accountability and promote inclusive lifelong learning.

The literature also implies that feedback systems are effective depending on the responsiveness of institutions. Feedback serves its function when the contributions of stakeholders are reflected in instructional practices, leadership choices, resource allocation or policy reform rather than being a one-way communication process (Carless & Winstone, 2023). Thus, educational systems that foster reciprocal communication among schools, families, communities, and government agencies are more capable of identifying implementation issues, responding to contextual realities, and sustaining continual improvement. While there are policies that encourage the involvement of stakeholders in inclusive education in Nigeria (Federal Republic of Nigeria, 2018; Federal Ministry of Education, 2023), there are few practical mechanisms for incorporating community experiences into educational decision-making, especially in the area of special needs education.

The role of communication, collaboration and institutional responsiveness in fostering inclusive education is generally empirically supported. International research has repeatedly demonstrated that learner involvement improves the accessibility of education by enabling teachers to identify learning barriers, adjust instructional methods, and increase classroom engagement (Carless & Winstone, 2023; Nicol, 2021). Similarly, UNESCO (2020) and EASNIE (2022) argue that continual assessment and learner engagement enhance inclusive instruction through differentiated teaching, flexible assessment, and constant instructional adjustment. This trend is also consistent with data from Rivers State and Nigeria. Richard and Ndimele (2026) stated that teachers' competence, communication strategies, assistive technologies and institutional support influence instructional accessibility among learners with special needs. However, this research is mostly focused on instructional methods and evaluation and does not explicitly explore structured student-to-teacher feedback loops as a means for promoting accessibility.

Research into school leadership also suggests that good administrative support, availability of resources and professional development of teachers are all important for the successful implementation of inclusive education. Constraints to inclusive education in Nigeria, as identified by Osuji and Semenitari (2025), Ukala and Adieme (2024), Ogboe (2024) and Ibe and Ezeala (2025), include dearth of specialized individuals, instructional resources and institutional ability. The findings indicate a need for greater collaboration between teachers and school leaders, but pay little attention to teacher-to-leader feedback as a systematic process whereby classroom experience informs institutional decision-making. The studies on community participation also show beneficial links between stakeholder engagement and inclusive educational results. Ojedapo and Ukofia (2022) found that community awareness raised the acceptance and support of inclusive education. Nwneh et al. (2024) found that family support, community acceptance, and collaboration between institutions enhanced the long-term educational and vocational success of hearing-impaired people. Furthermore, international data show that parents' involvement and collaborative governance assist to making education policy more responsive (UNESCO, 2021; UNICEF, 2021). However, current research usually treats parental involvement, community engagement, and policy implementation as distinct entities, rather than as parts of ongoing community-to-policy feedback processes.

Overall, the empirical literature shows a broad consensus on the importance of teacher ability, instructional accessibility, institutional leadership, resource provision, family involvement, and community participation for successful inclusive education. But three big holes remain. Firstly, most studies treat learners, teachers, administrators, parents and policymakers as distinct units of study rather than as interconnected participants in a continuous educational feedback system. Second, the implementation of feedback loops as a multidimensional construct comprising student-to-teacher, teacher-to-administrator, and community-to-policy communication channels has received scant empirical attention. Thirdly, although there is some evidence of the effect of teachers' professional training on the efficiency of these feedback systems, the evidence is limited, especially for special needs schools for hearing-impaired learners in Rivers State.

Therefore, this study tackles these gaps by conceptualizing feedback loop implementation as an integrated systems process that enhances inclusive lifelong learning through communication among learners, instructors, school

administrators, parents, communities and policymakers. Specifically, it explores input from students to teachers on instructional accessibility, from teachers to administrators on resources and training needs, and from parents on perceptions of community-to-policy feedback on cultural attitudes and inclusiveness. Using this multidimensional outlook, the study contributes to the existing body of scholarship, which has been largely fragmented into separate enquiries of instructional practice, school leadership or community engagement and provides empirical data for educational policy, institutional development and lifelong learning opportunities for the hearing-impaired in Rivers State.

Research Questions

1. What is the level of Student-to-Teacher Feedback Loops (Instructional Accessibility) in Special Needs Schools in Rivers State, based on the duration of Teacher Training?
2. What is the level of Teacher-to-Administrator Feedback Loops (Resource and Training Deficits) in Special Needs Schools in Rivers State, based on the duration of Teacher Training?
3. What is the parents' perception of the level of Community-to-Policy Feedback Loops (Cultural Attitudes and Inclusion) in Special Needs Schools in Rivers State?

Hypotheses

1. There is no statistically significant difference in the level of Student-to-Teacher Feedback Loops (Instructional Accessibility) in Special Needs Schools in Rivers State, based on the duration of Teacher Training.
2. There is no statistically significant difference in perceived level of Teacher-to-Administrator Feedback Loops (Resource and Training Deficits) in Special Needs Schools in Rivers State, based on duration of Teacher

Methodology

The study adopted a descriptive survey design to look at how feedback loops around instructional accessibility, institutional responsiveness and community participation are working in the two public special needs schools for hearing-impaired students in Rivers State. A descriptive survey design was considered appropriate because it allows the existing practices and perceptions of a defined group of respondents to be collected systematically without manipulating any variable (Creswell & Creswell, 2023). Participants were selected using a purposive sampling technique from the two government-approved special needs schools in Rivers State. Both are top inclusive schools in Rivers State, one state-owned and one privately owned. Both provide experiences, not limited to funding, to show that the issues are not isolated to a few special schools in the state. It also included 17 special educators who returned complete questionnaires and 29 parents actively involved in supporting the students' learning experiences. Data were gathered using the researcher-developed Feedback Loop Implementation and Inclusive Lifelong Learning Questionnaire (FLILLQ), which was informed by literature on inclusive education, feedback processes, and stakeholder engagement. The instrument comprised four sections covering demographic characteristics, student-to-teacher feedback, teacher-to-administrator feedback, and community-to-policy feedback. Responses were recorded on a modified four-point Likert scale ranging from Never (1), Rarely (2), Sometimes (3) and Always (4). The instrument was reviewed by experts to establish face and content validity, while a pilot study produced satisfactory internal consistency coefficients ($\alpha = 0.81, 0.84, \text{ and } 0.78$ for the three subscales; overall $\alpha = 0.80$). The alpha coefficients obtained exceed the commonly cited 0.70 benchmark for acceptable internal consistency in researcher-developed instruments (Taber, 2018). Ethical approval and institutional permission were obtained before data collection, and participation was voluntary. Data were analysed using SPSS Version 27. Descriptive statistics (mean and standard deviation) were used to answer the research questions. Mean scores were interpreted as Very Low (1.00–1.75), Low (1.76–2.50), Moderate (2.51–3.25), and High (3.26–4.00). Given the relatively small sample, inferential analyses were conducted using 5,000 bootstrap resamples to obtain more robust estimates. Independent-samples *t*-tests were applied for all hypotheses, with statistical significance determined at the 0.05 level.

Results

Table 1: Level of Student-to-Teacher Feedback Loops (Instructional Accessibility) in Special Needs Schools in Rivers State, based on duration of Teacher Training

S/No	Items/ Statements	Duration of Training	N	Mean	Std. D	Level
1	Students with disabilities inform me when they do not understand a lesson.	1–6 months	10	2.80	0.42	Moderate
		More than 6 months	8	3.25	0.46	Moderate
2	Students with disabilities tell me when instructional materials are too difficult to use.	1–6 months	10	2.80	0.79	Moderate
		More than 6 months	8	2.75	1.16	Moderate
3	Students with disabilities indicate when the pace of teaching is too fast for them.	1–6 months	10	2.60	1.43	Moderate
		More than 6 months	8	3.25	0.89	Moderate
4	Students with disabilities report when assistive devices (e.g., hearing aids, magnifiers) are not working properly.	1–6 months	10	2.00	1.33	Low
		More than 6 months	8	2.75	1.16	Moderate
5	I adjust my teaching methods based on feedback from students with disabilities.	1–6 months	10	3.00	0.94	Moderate
		More than 6 months	8	3.50	0.53	High
6	Students with disabilities feel comfortable telling me when they are left out of classroom activities.	1–6 months	10	2.80	0.79	Moderate
		More than 6 months	8	3.25	0.46	Moderate
7	Students with disabilities provide feedback on whether the classroom environment is accessible (e.g., seating, movement space).	1–6 months	10	3.20	0.79	Moderate
		More than 6 months	8	2.50	0.53	Low
8	I formally document feedback received from students with disabilities for future lesson planning.	1–6 months	10	3.80	0.42	High
		More than 6 months	8	3.25	0.89	Moderate
	Grand Mean	1–6 months	10	2.88	0.86	Moderate
	Grand Mean	More than 6 months	8	3.06	0.76	Moderate

Table 1 shows that Student-to-Teacher Feedback Loops (Instructional Accessibility) were perceived at a moderate level regardless of teachers' training duration. Teachers with 1–6 months of training recorded a grand mean of 2.88 (SD = 0.86), while those with more than 6 months of training had a slightly higher grand mean of 3.06 (SD = 0.76). The overall grand mean of 2.96 (SD = 0.86) also indicated a moderate level. Although teachers with longer training reported slightly higher levels of instructional accessibility, the pattern of responses was generally similar across the two groups. Notably, documenting students' feedback for lesson planning received the highest rating (M = 3.56), whereas reporting malfunctioning assistive devices received the lowest rating (M = 2.33).

Table 2: Independent Samples t-test on level of Student-to-Teacher Feedback Loops (Instructional Accessibility) in Special Needs Schools in Rivers State, based on duration of Teacher Training

Independent Samples Test					
	Mean Difference	Std. Difference	Error T	Df	Sig. (2-tailed)
Equal variances assumed	-0.180	0.388	-0.464	16.000	0.649
Equal variances not assumed	-0.180	0.382	-0.471	15.795	0.644

Hartley test for equal variance: $F = 1.280$, $\text{Sig.} = 0.3703$

Table 2 presents the independent samples t-test comparing Student-to-Teacher Feedback Loops (Instructional Accessibility) based on the duration of teacher training. The assumption of homogeneity of variance was satisfied (Hartley test: $F = 1.280$, $p = 0.370$). The analysis showed no statistically significant difference between teachers with 1–6 months of training and those with more than 6 months of training, $t(16) = -0.464$, $p = .649$. Bootstrap results based on 5,000 resamples produced a similar non-significant outcome (bootstrap $p = .652$; 95% CI for the mean difference: -0.94 to 0.58), confirming the stability of the finding despite the modest sample size. The null hypothesis was therefore retained: duration of teacher training did not significantly influence the level of Student-to-Teacher Feedback Loops in the special needs schools studied.

Table 3: Level of Teacher-to-Administrator Feedback Loops (Resource and Training Deficits) in Special Needs Schools in Rivers State, based on duration of Teacher Training

S/No	Items/Statements	Duration of Training	N	Mean	Std. D	Level
1	Teachers report shortages of teaching materials to school administrators.	1–6 months	10	4.00	0.48	High
		More than 6 months	8	3.75	0.46	High
2	Teachers communicate the lack of assistive technology to administrators.	1–6 months	10	3.40	0.52	High
		More than 6 months	8	3.75	0.46	High
3	Teachers inform administrators about inadequate classroom space for learners with disabilities.	1–6 months	10	2.80	1.23	Moderate
		More than 6 months	8	3.75	0.46	High
4	Teachers report their own training needs in special education to administrators.	1–6 months	10	2.80	0.79	Moderate
		More than 6 months	8	3.25	0.89	Moderate
5	Administrators respond to teacher feedback within two weeks.	1–6 months	10	3.20	0.42	Moderate
		More than 6 months	8	3.00	1.07	Moderate
6	There is a formal channel (e.g., suggestion box, meeting) for teachers to give feedback to administrators.	1–6 months	10	2.40	1.07	Low
		More than 6 months	8	3.75	0.46	High
7	Administrators provide written responses to teacher feedback.	1–6 months	10	3.00	0.67	Moderate
		More than 6 months	8	3.00	1.07	Moderate
8	Teacher feedback leads to observable changes in resource allocation.	1–6 months	10	3.20	0.79	Moderate
		More than 6 months	8	3.25	0.46	Moderate
	Grand Mean	1–6 months	10	3.10	0.76	Moderate
	Grand Mean	More than 6 months	8	3.44	0.66	High

Table 3 presents the level of Teacher-to-Administrator Feedback Loops (Resource and Training Deficits) based on the duration of teacher training. Teachers with 1–6 months of training recorded a grand mean of 3.10 (SD = 0.76), indicating a moderate level, whereas those with more than 6 months of training obtained a grand mean of 3.44 (SD = 0.66), indicating a high level. Overall, the findings suggest that teachers with longer training perceived stronger teacher-to-administrator feedback practices. Across the items, reporting shortages of teaching materials and communicating the lack of assistive technology received the highest ratings, while the existence of formal feedback channels for teachers received the lowest rating among teachers with shorter training duration.

Table 4: Independent Samples t-test on Level of Teacher-to-Administrator Feedback Loops (Resource and Training Deficits) based on Duration of Teacher Training

Independent Samples Test					
	Mean Difference	Std. Difference	Error T	Df	Sig. (2-tailed)
Equal variances assumed	-0.340	0.341	-0.998	16.000	0.333
Equal variances not assumed	-0.340	0.335	-1.015	15.853	0.325

Hartley test for equal variance: $F = 1.326$, $\text{Sig.} = 0.3516$

Table 4 presents the independent-samples t-test comparing teachers' perceived level of Teacher-to-Administrator Feedback Loops (Resource and Training Deficits) based on the duration of teacher training. The assumption of homogeneity of variance was met (Hartley test: $F = 1.326$, $p = .352$). The analysis revealed no statistically significant difference between teachers with 1–6 months of training and those with more than 6 months of training, $t(16) = -0.998$, $p = .333$. Bootstrap analysis with 5,000 resamples yielded a comparable non-significant result (bootstrap $p = .341$; 95% CI for the mean difference: -1.02 to 0.34), supporting the robustness of the parametric test. The null hypothesis was therefore retained, indicating that perceived levels of Teacher-to-Administrator Feedback Loops did not differ significantly according to the duration of teacher training.

Table 5: Parents' perception on Level of Community-to-Policy Feedback Loops (Cultural Attitudes and Inclusion) in Special Needs Schools in Rivers State

S/No	Items/Statements	N	Mean	Std. D	Level
1	Parents report cultural barriers (e.g., stigma, negative attitudes) to school officials.	29	2.79	1.05	Moderate
2	Community members attend school meetings on inclusive education.	29	2.34	0.94	Low
3	There is a formal mechanism for parents to submit complaints or suggestions about inclusion.	29	3.41	0.78	High
4	School officials report community feedback to higher education authorities (LGA/State).	29	3.14	0.83	Moderate
5	Feedback from the community leads to changes in school policies on inclusion.	29	3.10	0.72	Moderate
6	The school organises regular forums where parents and officials discuss inclusion barriers.	29	3.24	1.09	Moderate
Grand Mean		29	3.00	0.90	Moderate

Table 5 shows that parents perceived the level of Community-to-Policy Feedback Loops (Cultural Attitudes and Inclusion) in special needs schools in Rivers State as moderate (Grand Mean = 3.00, SD = 0.90). The highest-rated item was the availability of a formal mechanism for parents to submit complaints or suggestions about inclusion (M = 3.41, SD = 0.78), indicating a high level. Conversely, community participation in school meetings on inclusive education received the lowest rating (M = 2.34, SD = 0.94), reflecting a low level. The remaining items were rated at a moderate level, suggesting that while channels for community feedback exist, greater stakeholder engagement is needed to strengthen inclusive practices and policy implementation.

Discussion

The moderate level of student-to-teacher feedback observed in this study sits comfortably with what Carless and Winstone (2023), Nicol (2021) and UNESCO (2020) have argued: that when learners are able to feed back on their experience, teaching tends to become more responsive and accessible. The result also echoes local observations by Richard and Ndimele (2026), Amadi (2021) and Oyedele and Eke (2026), who linked open communication and willingness to adapt instruction with better inclusion outcomes. What is a little surprising, however, is that teachers with longer training did not differ significantly from those with shorter exposure. One possible reading is that the day-to-day culture of the school, rather than the number of months spent on a training programme, largely determines how much teachers actually draw on learners' comments when planning lessons.

Teacher-to-administrator feedback came out moderate-to-high, which aligns with the concerns raised by Osuji and Semenitari (2025), Ukala and Adieme (2024), Ogboe (2024) and Ibe and Ezeala (2025). These authors have repeatedly pointed out that without regular upward communication, resource gaps and training needs remain invisible to school leadership. The pattern also fits the collaborative leadership ideas advanced by OECD (2020) and Fullan (2020). Again, the absence of a significant training-duration effect suggests that formal structures and the willingness of administrators to listen may count for more than how long individual teachers have spent in professional development programmes.

Parents rated community-to-policy feedback only at a moderate level. This finding is broadly in line with Ojedapo and Ukofia (2022), Nwineh et al. (2024), UNESCO (2021) and UNICEF (2021), all of whom underline the importance of parental and community voice in inclusive education. The relatively low attendance at school meetings on inclusion is, however, a bit of a puzzle when set against studies that report stronger community involvement. Local factors: limited public awareness, lingering cultural attitudes towards disability, and weak school–community links may help explain why formal feedback channels exist but actual participation remains patchy.

Conclusion

From the results, it is clear that feedback loops in special needs schools serving hearing-impaired students in Rivers State are operating only at a moderate level overall. Channels exist between students and teachers, between teachers and administrators, and between the community and policymakers, yet they are not consistent enough and still lack the institutional backing needed to drive real inclusive lifelong learning. Interestingly, how long teachers had been trained did not make a significant difference in how they viewed either student-to-teacher or teacher-to-administrator feedback. This points to the possibility that school culture and everyday organizational practices matter more than the length of formal training when it comes to making feedback systems work.

Recommendations

1. School administrators should institutionalize structured feedback mechanisms that enable students, teachers, and parents to participate regularly in educational decision-making.
2. Government and school authorities should strengthen the provision of assistive technologies, instructional resources, and responsive administrative support for inclusive education.
3. Schools should promote greater parental and community participation through regular consultative forums and awareness programmes that support inclusive lifelong learning.
4. Professional development programmes should focus on equipping teachers with practical skills for using stakeholder feedback to improve instructional accessibility and inclusive classroom practices.

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