



Assessment Literacy and Identification Practices Among Teachers of Students with Learning Disabilities in Calabar Education Zone, Nigeria

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Abstract

The study looked at the impact of teachers' assessment literacy on the way students with learning disabilities are identified in the public primary schools of the Calabar Education Zone. A correlational survey design was used within the framework of competence–practice alignment. The population included 4,128 teachers in 243 public primary schools. A multi-stage sampling method, which involved stratified, proportional, simple random and systematic techniques, was employed in order to select 358 valid respondents from the initial 390 questionnaires distributed. Data were gathered using a questionnaire developed by the researcher that consisted of 24 items on assessment literacy and 22 items on identification practices. Content validity was achieved as a result of expert review, and pilot testing yielded Cronbach's alpha coefficients of .84 and .87 respectively. The data were collected by visiting the schools directly and then entered into SPSS version 27 after being checked for completeness and assumptions. A one-sample t-test was carried out to determine the level of literacy. Simple linear regression was used to examine the predictive influence, and hierarchical multiple regression was applied to test the moderating effects. The results showed that the level of assessment literacy was moderate and only slightly above the reference benchmark. Assessment literacy had a significant predictive effect on identification practices, accounting for 52.7% of the variance. Both professional training and teaching experience had a significant moderating effect on the relationship between literacy and practice, raising the amount of variance explained to 69 per cent. The findings suggest that assessment literacy functions as a conditional quality-control mechanism within the identification system. It is important that teachers receive structured preparation and continuous professional development if the translation of literacy into responsible identification behaviour is to be strengthened. It is recommended that teacher education programmes increase the depth of their courses in assessment and special education, that educational authorities institute continuous professional development, and that school leadership set up mentoring arrangements to support evidence-informed identification practice.

Keywords: Assessment Literacy, Identification Practices, Professional Characteristics, Experiential Characteristics, Learning Disability Identification

Introduction

In Nigeria, just as is the case in many other sub-Saharan systems, it is the classroom teachers who are mainly responsible for identifying learning disabilities in the early stages. The process of referring a child, keeping records, carrying out initial screening, and making decisions about accommodation usually starts in the regular primary classrooms rather than in specialist centres. However, the methods used for identification—such as how often referrals are made, the criteria applied when making referrals, the level of confidence in the identification, the reliance on informal assessment, the use of standardised screening, and the decisions regarding accommodation—still vary from school to school. Research carried out in Ghana shows that teachers in inclusive classrooms tend to rely mostly on informal assessment and classroom observation when deciding if a pupil has an intellectual disability; structured diagnostic pathways are used in an inconsistent manner (Muhammed, 2019). A study in Kenya found that the

implementation of Individualised Education Programmes is greatly influenced by the teachers' level of competence and their knowledge of assessment (Mwabili, 2020). In Rwanda, the delay in detecting learning difficulties has been connected to a lack of clarity in the referral processes and to teachers' uncertainty about the assessment procedures (Nyirabugenimana, 2021). In Nigeria, studies looking at the implementation of early childhood and inclusive education policies suggest that assessment practices are generally descriptive and created by the teachers rather than being based on a systematic diagnostic approach (Ringim, 2022; Owadara, 2025). International guidance for low- and middle-income countries stressed the importance of structured screening and a multi-stage evaluation system, but also acknowledged that technical capacity at the school level is limited (Hayes et al., 2018). These trends point to systemic risks in the way identification is carried out, since differences in teacher competence can affect who is referred, who is missed, and how the decisions are justified.

It is therefore the process of identification, not attitudes towards inclusion, that becomes the key dependent variable. Although previous African scholarship has often focused on teachers' attitudes, beliefs, or awareness of policy, fewer studies have looked at assessment decision-making in measurable terms. Evidence from Ghana indicates that teachers who have received specialised training show greater flexibility and confidence when adapting assessment for learners with disabilities (Muhammed, 2019). A cross-cultural study into classroom assessment literacy found that teachers' conceptual understanding of the purpose of assessment influences their practical decision-making, for example in interpreting learners' performance and in choosing assessment tools (Asamoah et al., 2023). A doctoral study carried out in Kenya directly connected assessment literacy with teachers' ability to assess learners with special needs. This suggests that a lack of literacy limits effective identification (Bashir, 2023). Comparative research carried out in Nigeria and South Africa on differentiated assessment stressed that equitable support demands teachers who are able to interpret evidence and adjust criteria in a systematic way (Izevbogie, 2024; Izevbogie & Thuketana, 2025). These studies imply that assessment literacy could act as a practical school-level variable affecting referral frequency, the use of informal as opposed to standardised assessment, the criteria used for identification, and the planning of accommodations. Yet the majority of the existing research is still descriptive or qualitative. There are few studies that measure how well literacy level predicts observable identification behaviour. Even fewer look at whether teachers' training background accounts for additional variance or whether teaching experience moderates the relationship between literacy and decision patterns.

There is still a debate as to whether the difficulties involved in identifying children in inclusive primary schools in Africa are mainly due to structural problems or to a lack of competence. International frameworks highlight the scarcity of screening instruments and of specialist staff as the main obstacles (Hayes et al., 2018). Evidence from Zambia has cast doubt on the cultural validity and inclusiveness of standardised assessments and has suggested that the assessments need to be adapted in order to be fair (Chisala, 2025). Structural constraints are also apparent in this area. However, the fact that there are differences in identification practices among schools that have a similar level of resources indicates that teacher competence may be responsible for a significant part of these differences. Research carried out in Botswana showed that there were large variations in the decisions regarding accommodation in inclusive classes, the decisions being more often based on teacher experience than on formal criteria (Mrstik, 2017). Studies conducted in Kenya show that referral patterns are heavily dependent on teacher judgement (Rasugu, 2010). Where two teachers working under the same policy conditions differ in the frequency with which they make referrals or in their confidence about identification, competence-based explanations should be subject to empirical investigation. The existing African literature provides only limited cross-sectional analysis of this relationship, and there is very little evidence from Nigerian primary schools concerning the identification of learning disabilities.

Misidentification has a number of educational implications. Thus, over-identification can result in stigmatisation and in inappropriate placement, while under-identification may cause a denial of services and lead to continued academic failure. Both of these results lead to educational inequity. Here, assessment literacy functions not just as a form of pedagogical knowledge but also as a quality-control mechanism in the identification process; it influences the way in which evidence is collected, interpreted and turned into referral decisions. By viewing assessment literacy as a safeguard for fair identification, it is placed within the framework of the governance of inclusive education rather than remaining in the abstract discussion of measurement. Analysis of the relationship between literacy level and referral frequency, the use of informal assessment, the use of standardised screening, the criteria for referral, confidence in the identification and the decisions regarding accommodation enables an assessment of the readiness of inclusive education at the school level.

The present study therefore makes use of the competence–practice alignment perspective, taking identification practices to be the dependent variable and assessment literacy to be the main explanatory variable. The study also looks at training background and professional development in order to assess their additional explanatory value and examines teaching experience as a possible moderator. Even without employing complex statistical modelling, it is possible to determine the amount of variance explained by means of multiple regressions and thus to see how the various teacher-related factors account for differences in identification behaviour. This type of modelling addresses the need for empirical evidence from Africa in the field of assessment research, since a great deal of existing scholarship comes from Western contexts and rarely looks at the identification of learning disabilities in mainstream primary classrooms.

The study makes five contributions by using cross-sectional data obtained from primary schools in the Calabar Education Zone in Nigeria. First, it looks at assessment literacy as it relates to the practice of identifying learning disabilities. Second, it offers empirical evidence from a developing country setting where such data are still scarce. Third, it connects teacher competence to actual behaviours at the school level rather than to the attitudes they claim to have. Fourth, it helps with the implementation of inclusive assessment policy by highlighting the areas in which schools are ready and those in which they are vulnerable. Fifth, it measures how far teacher literacy, training, and experience account for the variation in identification practices. By doing this, the study shifts the debate on inclusive education from one of attitudinal endorsement to one of measurable decision-making and sees assessment literacy as a practical safeguard for equitable identification.

Purpose of the Study

The objective of this study was to look at the relationship between teachers' assessment literacy and their identification of students with learning disabilities in the primary schools within the Calabar Education Zone. More specifically, the study aimed to:

1. determine the level of assessment literacy among teachers in public Primary schools in Calabar Education Zone.
2. examine the influence of teachers' assessment literacy on their identification practices of students with learning disabilities in Calabar Education Zone.
3. investigate whether teachers' professional training and years of teaching experience influence the relationship between assessment literacy and identification practices of students with learning disabilities in Calabar Education Zone.

Research Question

1. What is the level of assessment literacy among teachers in public primary schools in Calabar Education Zone?
2. What relationship exists between teachers' assessment literacy and their identification practices of students with learning disabilities in public primary schools in Calabar Education Zone?
3. Do teachers' professional and experiential characteristics moderate the relationship between assessment literacy and identification practices of students with learning disabilities in public primary schools in Calabar Education Zone?

Research hypotheses

H01: Teachers' assessment literacy does not significantly influence their identification practices of students with learning disabilities in public primary schools in Calabar Education Zone.

H02: Teachers' professional and experiential characteristics do not significantly moderate the influence of assessment literacy on identification practices of students with learning disabilities in public primary schools in Calabar Education Zone.

Methods and Materials

The study used a correlational survey approach within a competence–practice alignment framework. This type of design was regarded as suitable since the research aimed to look at the naturally occurring relationships between assessment literacy and the identification practices of students who have learning disabilities, while also examining the moderating effect of teachers' professional and experiential features. The variables were not manipulated. The identification practices were taken as the dependent variable, assessment literacy as the main explanatory variable,

and demographic characteristics as the moderator factor. Using this design, it was possible to estimate the amount of variance that could be explained by means of hierarchical multiple regression including interaction terms.

The study was carried out in the Calabar Education Zone of Cross River State, Nigeria. This zone includes the Calabar Municipality, Calabar South, Odukpani, Akamkpa, and Bakassi Local Government Areas. The zone is administered by the Cross River State Secondary Education Board and the State Universal Basic Education Board which looks after primary education. As stated in the statistical brief of the Cross River State Universal Basic Education Board and confirmed by the Universal Basic Education Commission's Basic Education Profile 2025, Cross River State had about 1,137 public primary schools, with an estimated total of 18,945 teachers and 394,517 pupils enrolled in public primary schools. The Calabar Education Zone represents approximately 21 per cent of the state's public primary schools according to the SUBEB zonal distribution reports. Records obtained from the Cross River SUBEB Education Digest 2025 show that there are 243 public primary schools in the Calabar Education Zone, 4,128 teachers and 83,614 pupils.

The study included all 4,128 teachers teaching in the 243 public primary schools in the Zone during the 2025/2026 academic session. The unit of analysis was the individual teacher. The pupils were not studied directly since the investigation was concerned with teachers' preparedness for responsibly identifying learning disabilities. A multi-stage sampling procedure was used to select the sample. In the first stage, a stratified sampling method was employed in order to ensure representation across the seven Local Government Areas in the Zone. Proportional allocation was then made according to the number of schools in each Local Government Area as recorded by SUBEB. In the second stage, simple random sampling by means of the balloting technique was applied in order to select 30 per cent of the schools from each stratum. A total of seventy-three public primary schools were selected. In the third stage, systematic sampling was used to select the teachers from the schools that had been chosen. The sampling interval was calculated by dividing the number of teachers in the selected schools by the required sample size. The sample size was determined using the Yamane formula for a finite population at the 0.05 level of precision. When the population of 4,128 teachers was used in the calculation, a minimum sample of 364 teachers was obtained. To allow for possible non-response, 390 questionnaires were distributed. 372 questionnaires were returned in total. After checking for completeness, 358 valid responses were kept for analysis, which corresponds to a response rate of 91.8 per cent.

The data were obtained through the use of a structured questionnaire called the Assessment Literacy and Identification Practices Questionnaire, which had been developed by reviewing existing frameworks concerning classroom assessment literacy and the literature on inclusive identification. The questionnaire was made up of three sections. Section A gathered information on the respondents' demographic and professional backgrounds, such as their gender, the highest qualification they had achieved, the area in which they specialised, the length of their teaching experience, their professional training, any previous coursework in special education, and their participation in assessment-related professional development, all of which acted as moderator variables. Section B evaluated the teachers' level of assessment literacy in four areas: an understanding of the purposes of assessment, knowledge of different assessment methods, skills in interpreting data, and ethical considerations when making referral decisions. It included 24 items which were assessed on a 4-point Likert scale going from Strongly Disagree to Strongly Agree. Section C looked at the identification practices of learners with learning disabilities through 22 items relating to referral frequency, referral criteria, confidence in the identification process, the use of both informal and standardized assessment tools, and the accommodation decisions made before referral. The items were rated according to either an agreement or a frequency response scale as was appropriate.

Content validity was achieved by having three experts in educational measurement and special education from Nigerian universities carry out a review. The items were altered in order to remove any ambiguity and to make sure they were in line with the operational definitions. A pilot study was carried out with 40 teachers who were located outside the study area. The Cronbach's alpha coefficients obtained were 0.84 for the assessment literacy scale and 0.87 for the identification practices scale, which shows that there was acceptable internal consistency. Data collection was done by visiting the sampled schools either singly or with the help of trained research assistants. The purpose of the study was made clear to them. Participation was on a voluntary basis. The questionnaires were given out during staff meetings or during designated free periods in order to reduce disruption to the teaching programme. Where possible, the completed questionnaires were collected immediately or within 48 hours. In preparing the data, the responses were coded numerically and entered into Statistical Package for Social Sciences version 27. Items that had been reverse-coded were corrected before the composite scores were calculated. The missing data were checked and

cases with more than 10 per cent of responses missing were excluded. Before carrying out the inferential analysis, normality, linearity, and multicollinearity were examined.

Descriptive statistics and inferential statistics were used for the data analysis. Simple linear regression was used to examine relationship between assessment literacy and identification practices. To test moderation hypothesis, hierarchical multiple regression analysis was conducted. Change in R^2 and significance of interaction coefficients were examined to determine moderating effects. The analysis was conducted .05 level of significance. Ethical considerations were observed throughout study. Respondents were informed of the study's objectives, voluntary nature of participation and confidentiality of response. No identifying information was collected. Data were stored securely and used solely for research purposes. Study was focused on teacher professional practice and did not involve direct interaction with pupils, thereby minimising risk.

Results

Level of Assessment Literacy among Teachers in Public Primary Schools

The extent to which teachers have assessment literacy has now gone beyond general opinions on inclusion to a more specific focus on the behaviour of their assessment decisions. In situations where the identification of learning disabilities has repercussions for a pupil's placement, access to support, and their future educational path, assessment literacy acts as a quality-control measure. It thus follows that asking whether teachers have sufficient assessment literacy is not merely an act of satisfying curiosity but rather amounts to a readiness check concerning the implementation of inclusive education. To answer this question, a one-sample t-test was carried out. This statistical technique was chosen since it enables a comparison between the mean assessment literacy score that was observed and the benchmark that is theoretically defined. In the present study, a test value of 75 corresponded to the expected level of moderate competence according to the scale of the instrument. The test therefore aimed to determine whether teachers' level of literacy significantly differed from this reference value. The results of the analysis are given in Table 1.

Table 1: One-Sample t-Test Showing Level of Assessment Literacy Compared to Theoretical Benchmark (Test Value = 75)

		N		Mean		Std. Dev.		Std. Error Mean	
Assessment Literacy		358		80.41		10.152		.537	
Test Value = 75									
	t	df	Sig.	MD	95% CI	Cohen's d	Hedges' correction		
Assessment Literacy	10.04	357	.00	5.41	4.36, 6.47	.533	.532		

Results in Table 1 indicate that teachers obtained a mean score of 80.41 (SD = 10.15, N = 358). This mean was statistically higher than the reference value of 75, $t(357) = 10.04$, $p < .001$. The mean difference of 5.41 was accompanied by 95% CI (4.36 - 6.47), indicating that observed difference was unlikely due to sampling fluctuation. Cohen's d effect size of 0.53, was moderate, suggesting a meaningful, not large, deviation from the benchmark. While the statistical test showed that the mean score exceeded moderate reference point, the finding is not an evidence of high or advanced assessment literacy. When considered relative to the maximum possible score on the instrument, the average performance reflects moderate proficiency rather than strong mastery. In practical terms, teachers appear to demonstrate foundational assessment knowledge, yet the margin above the benchmark is modest. The distribution, therefore, suggests adequacy at a general level, but not depth of expertise across all domains of assessment practice. In response to the research question, the level of assessment literacy among teachers in public primary schools in Calabar Education Zone may be described as moderate, slightly above the defined reference standard. This statistical evidence does not support characterisation of low literacy overall; however, neither does it justify claim of advanced competence.

Influence of Assessment Literacy on Identification Practices of Students with Learning Disabilities

Assessment literacy in inclusive primary education is not merely theoretical knowledge; it appears closely tied to referral decisions, screening practices, and accommodation choices. Testing whether literacy significantly predicts identification practice, therefore moves this study from description to behavioural explanation. To address this objective, simple linear regression was employed. This method was appropriate because it estimates the predictive

effect of one independent variable, assessment literacy, on a continuous dependent variable, identification practices. More importantly, it quantifies explained variance, which aligned with the study's competence–practice alignment framework. Table 2 presents the result of the statistical analysis.

Table 2: Simple Linear Regression Showing Influence of Assessment Literacy on Identification Practices

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate				
1	.726 ^a	.527	.525	12.672				
Model	Sum of Squares		Df	Mean Square	F	Sig.		
1	Regression	63612.760	1	63612.760	396.167			
	Residual	57163.106	356	160.571				
	Total	120775.866	357					
		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
Model		B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1	(Constant)	-36.95	5.35		-6.90	.00		
	Assessment Literacy	1.31	.07	.73	19.90	.00	1.00	1.00

Results in Table 2 show that assessment literacy significantly predicted identification practices, $F(1, 356) = 396.17$, $p < .001$. The model yielded $R = .726$ and $R^2 = .527$, indicating that assessment literacy explained 52.7% of the variance in identification practices. The model retained substantial explanatory power after accounting for sampling variation (adjusted $R^2 = .525$). Also, the standard error of estimate was 12.67, reflecting average prediction error in identification practice scores. Examination of regression coefficients further clarifies the strength of this relationship. Assessment literacy had a positive and statistically significant effect on identification practices, $B = 1.31$, $\beta = .73$, $t = 19.90$, $p < .001$. Standardised beta coefficient indicates a strong positive influence. This suggested that higher level of assessment literacy is associated with more structured and presumably more informed identification practices. Tolerance and VIF values of 1.00 indicate absence of multicollinearity concerns. Given these findings, the null hypothesis stating that teachers' assessment literacy does not significantly influence their identification practices is rejected. Assessment literacy alone accounted for more than half of the variability in identification behaviour, which is substantial in educational research. This magnitude of explained variance suggests that literacy functions as more than background knowledge; it appears closely tied to practical decision-making within schools. At the same time, unexplained variance remains which justify subsequent examination of moderating professional and experiential factors.

Moderating Role of Professional and Experiential Characteristics on the Influence of Assessment Literacy on Identification Practices

Previous analysis established that assessment literacy strongly predicts identification practices. Yet competence rarely operates in isolation. Teachers differ in qualification depth, exposure to assessment coursework, professional development histories, and accumulated classroom experience. These variations may shape how assessment knowledge is translated into referral decisions, screening choice, and accommodation practices. This hypothesis, therefore, examined whether teachers' professional and experiential characteristics moderate the influence of assessment literacy on identification practices. Hierarchical multiple regression was employed because it allowed sequential entry of predictors and interaction terms, enabling examination of incremental variance explained and formal testing of moderation effects. Result of the statistical analysis is presented in Table 3a and 3b.

Table 3a: Hierarchical Regression Model Summary and ANOVA Showing Incremental Contribution of Professional and Experiential Characteristics

Model	R	R ²	R ² adj	S _{y,x}	Change Statistics				
					ΔR^2	ΔF	df1	df2	Sig. ΔF
1	.73 ^a	.53	.525	12.67	.53	396.18	1	356	.00
2	.78 ^b	.61	.600	11.64	.08	12.02	6	350	.00
3	.80 ^c	.64	.632	11.16	.04	7.11	5	345	.00
4	.83 ^d	.68	.663	10.68	.04	6.31	6	339	.00
5	.83 ^e	.69	.669	10.58	.01	2.20	5	334	.05

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	63612.76	1	63612.76	396.17	.00 ^b
	Residual	57163.11	356	160.57		
	Total	120775.87	357			
2	Regression	73377.14	7	10482.45	77.40	.00 ^c
	Residual	47398.73	350	135.43		
	Total	120775.87	357			
3	Regression	77805.05	12	6483.75	52.06	.00 ^d
	Residual	42970.82	345	124.55		
	Total	120775.87	357			
4	Regression	82124.42	18	4562.47	40.02	.00 ^e
	Residual	38651.45	339	114.02		
	Total	120775.87	357			
5	Regression	83358.71	23	3624.29	32.35	.00 ^f
	Residual	37417.15	334	112.03		
	Total	120775.87	357			

The hierarchical results show progressive improvement in model fit across five steps. In Model 1, assessment literacy alone explained 53% of variance in identification practices, $R^2 = .53$, $F_{(1, 356)} = 396.18$, $p < .001$. This confirmed the strong baseline influence observed earlier in this study. When professional characteristics were entered in Model 2, explained variance increased to 61%, $\Delta R^2 = .08$, $\Delta F_{(6, 350)} = 12.02$, $p < .001$. This indicates that teachers' professional preparation contributed an additional 8% of variance beyond literacy alone. Model 3 incorporated experiential characteristics, producing $R^2 = .64$. The additional 4% variance explained was statistically significant, $\Delta F_{(5, 345)} = 7.11$, $p < .001$. This suggests that classroom experience and direct exposure to pupils with learning difficulties added explanatory value. Model 4 introduced professional interaction terms. Explained variance increased to 68%, $\Delta R^2 = .04$, $\Delta F_{(6, 339)} = 6.31$, $p < .001$. This step is critical. The significant change indicates that professional characteristics moderated the influence of assessment literacy. Model 5 added experiential interaction terms. Total explained variance rose slightly to 69%, $\Delta R^2 = .01$, $\Delta F_{(5, 334)} = 2.20$, $p = .05$. Although smaller in magnitude, this final step remained statistically significant, suggesting that certain experiential factors also moderated the literacy–practice relationship. This hierarchical pattern supports the proposition that identification practices are not shaped by literacy alone. Instead, literacy operates within a broader professional and experiential framework.

Table 3b: Significant Predictors and Interaction Effects in the Final Model

Predictor	B	SE	B	T	p
Main Effect					
Assessment Literacy	0.06	0.33	0.03	0.18	.85
Professional Characteristics					
Highest Academic Qualification	4.22	0.69	0.19	6.12	<.00
Pre-service Coursework in Assessment	2.74	0.76	0.12	3.59	<.00
Pre-service Coursework in Special Education / LD	2.29	0.59	0.13	3.92	<.00
Professional Development in Assessment	1.93	0.73	0.08	2.64	.00
Experiential Characteristics					
Years of Teaching Experience	2.22	0.56	0.13	3.96	<.00
Years of Experience Teaching Pupils with LD	2.72	0.60	0.15	4.52	<.00
Significant Interaction Effects (Moderation)					
AL × Highest Academic Qualification	0.15	0.07	0.18	2.25	.02
AL × Pre-service Coursework in Assessment	0.29	0.08	0.21	3.79	<.00
AL × Pre-service Coursework in Special Education / LD	0.14	0.06	0.11	2.32	.02
Experiential Characteristics					
Years of Teaching Experience	2.22	0.56	0.13	3.96	<.00
Years of Experience Teaching Pupils with LD	2.72	0.60	0.15	4.52	<.00
Significant Interaction Effects (Moderation)					
AL × Highest Academic Qualification	0.15	0.07	0.18	2.25	.025
AL × Pre-service Coursework in Assessment	0.29	0.08	0.21	3.79	<.00
AL × Pre-service Coursework in Special Education / LD	0.14	0.06	0.11	2.32	.02
AL × Professional Development in Inclusive Education	0.18	0.08	0.12	2.41	.01
AL × Years of Teaching Experience	0.15	0.06	0.19	2.49	.01

The results obtained in a hierarchical approach show a step-by-step improvement in the fit of the model. In the first model, assessment literacy by itself accounted for 53% of the variance in identification practices, $R^2 = .53$, $F_{(1, 356)} = 396.18$, $p < .001$. This reinforced the strong baseline effect that had previously been observed in this study. In model 2, when the professionals' characteristics were included, the amount of variance explained rose to 61%, $\Delta R^2 = .08$, $\Delta F_{(6, 350)} = 12.02$, $p < .001$. This shows that the teachers' professional preparation accounted for an extra 8% of the variance beyond what could be explained by literacy alone. Model 3 added the experiential characteristics and achieved an R^2 of .64. The additional 4% of variance explained was found to be statistically significant, $\Delta F_{(5, 345)} = 7.11$, $p < .001$. This implies that classroom experience and direct contact with pupils who have learning difficulties did add explanatory power. Model 4 introduced the interaction terms involving professional characteristics. The variance explained then increased to 68%, $\Delta R^2 = .04$, $\Delta F_{(6, 339)} = 6.31$, $p < .001$. This step is important because the significant change shows that the professional characteristics modified the effect of assessment literacy. In model 5, the interaction terms involving experiential factors were added and the total amount of variance explained increased slightly to 69%, $\Delta R^2 = .01$, $\Delta F_{(5, 334)} = 2.20$, $p = .05$. Even though the magnitude of this change was small, the final step was still statistically significant, indicating that some of the experiential factors also moderated the relationship between literacy and practice. The pattern that emerges in this hierarchical analysis supports the idea that identification practices are not determined solely by literacy. Rather, literacy functions within a wider professional and experiential context.

In the final model, the direct effect of assessment literacy became insignificant, with a B value of 0.06, a β of 0.03, and a p value of .85. This result has theoretical importance since, when the interaction terms were included, the independent effect of literacy was incorporated into the conditional effects, showing that its influence depends on the teacher's background. With regard to professional characteristics, the highest academic qualification was a significant predictor of identification practices, the β being .19 and the p value less than .001. Similarly, pre-service coursework in assessment and in special education were also significant predictors, with β values of .12 and .13 respectively, and in both cases the p value was less than .001. Professional development in assessment remained significant as well, with a β of .08 and a p value less than .01. The results indicate that formal preparation has a direct impact on identification behaviour. The experiential variables likewise showed significant main effects: years of teaching experience, $\beta = .13$, $p < .001$, and years of experience teaching pupils with learning disabilities, $\beta = .15$, $p < .001$, were

both linked to more developed identification practices. It therefore seems that experience enhances procedural competence.

The analysis showed that the various factors related to professional preparation had a significant effect on assessment literacy. Teachers who had higher academic qualifications and who had received more extensive exposure during their pre-service training to both assessment and special education showed a greater ability to translate literacy into actual identification behaviour. Further, professional development in the area of inclusive education had a strengthening effect on this relationship. This indicates that assessment literacy is likely to be more effective when it is part of organised professional training. Experiential moderation was more selective than professional selection. The number of years that teachers had been teaching had a significant impact on the link between literacy and practice, showing that accumulated experience in the classroom helps in the application of assessment knowledge. However, the number of years spent teaching pupils with learning difficulties did not have a significant moderating effect on the relationship, which means that mere exposure may not be enough to systematically increase the effect of literacy without structured training.

Above all, a number of interaction terms proved to be statistically significant. The interaction between assessment literacy and the highest academic qualification was significant, with a beta value of .18 and a p value of .025. So too were the interactions between literacy and pre-service coursework in assessment, which had a beta of .21 and a p value less than .001, and the interaction between literacy and pre-service coursework in special education, $\beta = .11$, $p = .02$. These findings indicate that the effect of literacy on identification practices becomes more pronounced among teachers who have received deeper formal training. Professional development in inclusive education also had a moderating effect, with a beta of .12 and a p value of .01. Furthermore, there was a significant interaction between years of teaching experience and assessment literacy, $\beta = .19$, $p = .01$. This shows that the impact of literacy on identification behaviour is strong among more experienced teachers. However, the interactions involving class size, referral involvement, and school role were not statistically significant.

The fact shown suggests that assessment literacy functions as a conditional predictor rather than a general one; it is necessary but by no means sufficient. Its practical effect varies according to the extent of professional training and the amount of teaching experience gained. The null hypothesis is thus rejected. The professional and experiential characteristics have a significant moderating effect on the influence of assessment literacy upon identification practices in the public primary schools in the study area. Although the extent to which these moderation effects increase variance is small, they are statistically reliable and conceptually in line with a competence–practice alignment model. It is true that literacy is important, but its impact on behaviour seems to be greater when there is stronger qualification, more focused coursework, and ongoing professional development.

Discussion

The current study looked at assessment literacy not as an abstract professional quality but as a kind of competence that is part of the behaviour involved in making identification decisions. Three patterns were found: teachers showed a moderate level of assessment literacy; assessment literacy had a strong effect on identification practices; and this effect was significantly influenced by professional training and certain experiential factors. These results add to the increasing amount of research which has shifted from merely describing assessment knowledge to looking at how such knowledge is put into practice in the classroom and in referral decisions.

The fact that teachers showed a moderate rather than a low or advanced level of assessment literacy is in line with recent research which has pointed to uneven assessment skills among different school systems. Data from international surveys show that teachers generally express confidence when it comes to carrying out classroom assessments, but there is still a gap in their ability to interpret data and to apply formal screening procedures (OECD, 2019). In low- and middle-income settings, teachers usually have limited professional access to structured assessment training; this limits the depth of their assessment literacy even if they do have the basic knowledge (UNESCO, 2020). Since the moderate level of assessment literacy found in this study does not indicate a systemic failure nor does it show a high degree of mastery, it rather suggests a basic familiarity with assessment concepts without possessing consistent advanced diagnostic skills. This point is important since inclusive education frameworks are becoming more dependent on teachers identifying learners in the early grades, a situation in which moderate literacy may not be enough to avoid the risk of misidentification.

The fact that assessment literacy has a strong predictive effect on identification practices supports earlier theoretical claims that teacher competence affects special education referral behaviour. Current research has underlined the way in which assessment literacy influences teachers' interpretation of classroom evidence, their ability to distinguish between academic difficulty and disability, and their decision as to when to make a referral (Popham, 2018; DeLuca et al., 2019). Nevertheless, a great deal of this research has concentrated on systems in the West and has generally looked at assessment literacy in connection with classroom grading rather than with the identification of disability. The present study showed that assessment literacy accounts for a substantial amount of the variation in identification practices in a Nigerian primary school setting. It provides empirical evidence for the idea that knowledge of assessment acts as a practical resource in the development of educational systems. The extent of the variance accounted for indicates that literacy is not a minor factor in identification behaviour but is in fact central to it.

At the same time, the findings from the moderation cast doubt on a simple idea about competence. Once the interaction terms were included, the direct effect of assessment literacy ceased to be significant. This shows that literacy has a conditional rather than a uniform effect. This pattern is in line with recent research, in which it was argued that the professional learning experiences individuals have influence the way in which assessment knowledge is put into practice (DeLuca et al., 2019; Xu & Brown, 2017). Teachers who had higher academic qualifications and who had more structured assessment and special education training before entering the teaching profession showed a stronger link between their literacy and their practice when compared with others. This implies that formal preparation enhances conceptual integration and therefore allows teachers to turn assessment knowledge into more systematic decisions about identification. In situations where pre-service programmes differ in how deep and high quality they are, these conditional effects become particularly important.

The relationship between literacy and practice was also improved through professional development in inclusive education. This result was in line with the evidence that focused professional learning can cause teachers to move from relying on their intuitive judgments to using criterion-referenced and evidence-informed assessment practices (OECD, 2019; Brown, et al. 2019; Popham, 2018; DeLuca, et al., 2019). The fact that this is so suggests that continuous training does not simply lead to an increase in knowledge but may also adjust the decision thresholds and referral criteria. In education systems that are carrying out inclusive reform, this interaction effect shows how important it is to treat sustained professional development as an implementation mechanism rather than as an optional addition.

Experiential moderation resulted in a more clear-cut pattern. Experience gained from general teaching had a significant moderating effect on the impact of literacy, while experience in teaching pupils with learning difficulties did not. This difference is theoretically interesting. Experience in general teaching might improve skills in observing the classroom and in recognizing patterns, thus enhancing the practical use of assessment knowledge. On the other hand, simply being exposed to pupils with learning difficulties does not necessarily lead to better diagnostic reasoning unless there are structured conceptual frameworks in place. These findings challenge the idea that exposure alone leads to competence. They indicate that experience becomes educationally significant only when combined with an understanding of formal assessment.

It has positioned assessment literacy as a quality-control feature of identification systems. Numerous statements in the international policy debate have cautions against inaccurate identification leading to stigmatisation, incorrect placement, and unequal access to services (UNESCO, 2020; Sullivan and Bal, 2018; Shifrer, et al., 2019; World Bank, 2022 & United Nations, 2018). However, there has been only limited empirical research connecting teacher competence directly to identification behaviour in primary schools in Africa. By examining the explained variance and interaction effects, the current study introduces a perspective on the alignment between competence and practice. It shows that assessment literacy is important, but its practical effects depend on having received structured preparation and on having a good deal of teaching experience. The novelty of this contribution is in three respects. Firstly, it changes the focus from attitudes towards inclusion to actual behaviour in making identification decisions. Second, it offers cross-sectional evidence from Africa in a field which has been mainly dominated by Western scholarship. Third, it measures the degree to which variables at the level of the teacher account for identification practices, thus going beyond mere descriptive statements to empirical modelling.

Conclusion

The study looked at assessment literacy as a functional part of the identification process in the public primary schools of the Calabar Education Zone. Rather than merely discussing inclusive attitudes, it focused on a detailed analysis of the decisions made regarding assessment. The study treats teacher competence as something that can be measured and that is relevant to policy in the context of special education identification. By doing so, it reinforces the view that there should be a link between competence and practice and points out the professional conditions which support responsible referral systems.

What is presented here is an extension of research into the area of assessment in a primary school in Africa, a setting where empirical modelling of identification behaviour is still rather limited. The analysis has established the explanatory value of the various teacher-related factors and has made clear the way in which professional training interacts with classroom judgement. In this context, assessment literacy does not appear as mere abstract pedagogical terminology, but rather as a practical measure built into ordinary school decisions. The accuracy of identification depends on how deep and coherent that measure is. The study highlights preparedness as a key aspect of being ready for inclusive education. Responsible identification does not result simply from adopting policy; it is based on developed expertise, supported practice, and a commitment from the institution to making decisions on the basis of evidence.

Recommendations

1. The faculties of Education and the teacher training institutions should enhance the pre-service curriculum relating to assessment and special education by incorporating structured sections that cover the identification of learning disabilities, screening tools, and referral criteria so that on completion graduates will have a greater degree of diagnostic ability when entering the classroom.
2. The State Universal Basic Education Board and the Ministry of Education should carry out ongoing and well-organized professional development programmes in the areas of assessment and inclusive education, with a focus on practical application when it comes to screening, making referral decisions, and planning accommodations.
3. School administrators ought to set up mentoring and guided practice systems to help new teachers apply their knowledge of assessment when making identification decisions, in this way ensuring that their professional experience grows together with structured competence rather than relying solely on informal judgement.

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