

PERCEIVED STIGMA, SELF-ESTEEM, AND ACADEMIC ENGAGEMENT AMONG LEARNERS WITH LEARNING DISABILITIES IN INCLUSIVE SECONDARY SCHOOLS IN CALABAR EDUCATION ZONE, NIGERIA

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Abstract

This study examined influence of perceived stigma and self-esteem on academic engagement among learners with learning disabilities in inclusive secondary schools in Calabar Education Zone, Nigeria. To achieve its purpose, cross-sectional survey design was adopted. The population were identified learners with learning disabilities in public secondary schools, from which a sample of 112 was selected using multi-stage sampling. Data were collected using the researcher-developed Perceived Stigma, Self-Esteem, and Academic Engagement Questionnaire (PSSEAEQ). The instrument was validated by experts, and reliability coefficients of .76, .81, and .72 were obtained. Data were collected by the researcher and through trained assistants after formal approval from school administrations was sought. Collected data were coded, screened, and analysed using simple and multiple regression at .05 level of significance. Result of the analysis revealed that perceived stigma significantly and negatively influenced academic engagement ($\beta = -.61, p < .05$), while self-esteem had a significant positive influence ($\beta = .56, p < .05$). The joint model explained 55% of variance in academic engagement ($R^2 = .55, p < .05$). The study concluded that academic engagement is shaped by both social perception and self-worth within inclusive settings. It was recommended that schools reduce stigma, strengthen self-esteem, and integrate psychosocial support into inclusive practices.

Keywords: Perceived stigma, self-esteem, academic engagement, learning disabilities, inclusive education

Introduction

Inclusive education in Nigeria has gained stronger policy visibility, yet the movement from access to meaningful participation remains incomplete. Recent policy analysis shows that the legal and rights framework for children with disabilities in Nigeria has expanded, but implementation gaps remain across states and service systems (Elekanachi et al., 2023). Nigerian evidence also indicates that parental knowledge, attitudes, and perceived social norms still shape the actual climate of inclusion in schools, which means that classroom inclusion is influenced not only by policy but also by what families and communities believe about disability and schooling (Torgbenu et al., 2021). Teacher preparation presents a related concern. Research on pre-service

teachers in Nigeria and South Africa suggest that support for inclusion may be constrained by uneven knowledge and preparedness. Also, broader African evidence shows that teachers' practical capability remains central to whether inclusion becomes participatory rather than symbolic (Adigun, 2021; Mokhampanyane, 2024). Caregiver awareness is equally important in the case of learning disability, especially where dyslexia and related conditions are poorly understood and support pathways are weak, as recent Nigerian work has shown (Iwuagwu et al., 2022). A wider review of education for children with disabilities similarly identifies stigma, inadequate teacher preparation, inaccessible learning conditions, and weak support systems as recurring barriers across settings, many of which are especially relevant in low-resource contexts (Bani Odeh & Lach, 2024).

Within that context, perceived stigma deserved closer attention because it may shape how learners with learning disabilities interpret school experiences long before measurable academic outcomes appear. A recent systematic review found that stigma and stereotype threat connected to specific learning disabilities are linked with poorer psychological and academic outcomes, which strengthens the argument that social meaning attached to disability can carry direct educational consequences (Haft et al., 2023). Recent reviews further suggest that children and adolescents with specific learning disabilities face heightened stress and emotional strain, and that these experiences are often tied to social pressure and negative evaluation rather than to cognitive difficulty alone (Stein et al., 2024). Related evidence shows that language and specific learning disorders commonly co-occur with internalising and externalising difficulties; making it difficult to treat academic struggle as purely instructional or purely individual (Donolato et al., 2022). Difficulties in early identification may deepen this problem. Stone et al. (2023) found that school professionals and clinicians still encounter major barriers in identifying learning disabilities, and delayed recognition can leave learners exposed to repeated failure, misunderstanding, and negative labelling.

Self-esteem appears to be one of the most plausible pathways through which these school experiences affect academic life. Recent studies report that adolescents with learning difficulties often show lower self-esteem than peers without such difficulties, although the degree varies across context and support conditions (Caqueo-Urizar et al., 2021; Ihbour et al., 2021). Work on emotional adjustment among adolescents with specific learning disabilities also points to greater emotional vulnerability, which suggests that the social and academic demands of schooling may have cumulative effects on how learners judge their own worth and competence (Martín-Ruiz et al., 2023). Evidence on social relationships adds another layer. Adolescents with learning disabilities may experience loneliness, weaker peer relations, and fragile self-regard, especially where support is inconsistent or socially visible in ways that invite difference and exclusion (Musetti et al., 2019). Research on dyslexia at university level also indicates that educational histories continue to shape self-concept beyond childhood, which suggests that self-perception is not a minor by-product of schooling but part of its long developmental effect (Brunswick & Bargary, 2022).

Academic engagement, therefore, need to be read as more than classroom compliance. It reflects participation, persistence, emotional investment and willingness to remain mentally present in learning. Evidence from inclusive classrooms shows that engagement is strongly affected by ecological and instructional conditions, including task structure, teacher attention, and classroom organisation (Yao et al., 2022). Other work has shown that when support tools are available and appropriate, engagement, self-efficacy, and psychosocial functioning improve together, which suggests that internal and environmental factors often move in the same direction rather than separately (McNicholl et al., 2023). Recent research from children's perspectives in inclusive settings also indicates that learners with learning disabilities do not always experience the same

social, emotional, and academic reality as their peers, even when they share the same school space (Yazıcıoğlu et al., 2025). Taken together, the literature appears to suggest that perceived stigma may weaken self-esteem, and reduced self-esteem may in turn limit academic engagement among learners with learning disabilities. That relationship has not been sufficiently examined in the Calabar Education Zone, and this is where the present study can make a needed contribution to special education research and practice (Haft et al., 2023; Torgbenu et al., 2021; Elekanachi et al., 2023).

Statement of the problem

Classroom experienced in Calabar Education Zone suggest that learners with learning disabilities are present in inclusive settings, but are not fully engaged in academic activities. Many showed low participation, avoided demanding tasks and depends excessively on peers. Teachers report inconsistent involvement during lessons; while peer interactions sometimes reflect subtle rejection, labelling or stigmatisation. These conditions appear to weaken sustained attention and effort in learning. Although inclusive education has been implemented through policy and some classroom adjustments, expected improvement in active academic participation remains limited. Efforts to mitigate these problems primarily centred on placement strategies, instructional modifications and teacher assistance. While these initiatives have enhanced accessibility, they failed to adequately consider how learners perceive their social and academic environments. Current research has largely concentrated on structural elements and resultant outcomes, with insufficient emphasis on the impact of perceived stigma and self-esteem on engagement levels. Consequently, a critical question remains unanswered: How do perceived stigma and self-esteem influenced academic engagement among students with learning disabilities in inclusive schools within the Calabar Education Zone?

Purpose of the study

This study aimed to examine the influence of perceived stigma and self-esteem on academic engagement among learners with learning disabilities in inclusive schools in Calabar Education Zone. The study specifically sought to:

1. determine the influence of perceived stigma on academic engagement among learners with learning disabilities in inclusive schools in Calabar Education Zone.
2. examined the influence of self-esteem on academic engagement among learners with learning disabilities in inclusive schools in Calabar Education Zone.
3. assessed the joint predictive role of perceived stigma and self-esteem on academic engagement among learners with learning disabilities in inclusive schools in Calabar Education Zone.

Research questions

1. To what extent does perceived stigma influence academic engagement among learners with learning disabilities in inclusive schools in Calabar Education Zone?
2. To what extent does self-esteem influence academic engagement among learners with learning disabilities in inclusive schools in Calabar Education Zone?
3. What is the joint predictive role of perceived stigma and self-esteem on academic engagement among learners with learning disabilities in inclusive schools in Calabar Education Zone?

Research hypotheses

1. Perceived stigma has no significant influence on academic engagement among learners with learning disabilities in inclusive schools in Calabar Education Zone.

2. Self-esteem has no significant influence on academic engagement among learners with learning disabilities in inclusive schools in Calabar Education Zone.
3. Perceived stigma and self-esteem do not have a significant joint predictive influence on academic engagement among learners with learning disabilities in inclusive schools in Calabar Education Zone.

Method

This study adopted a cross-sectional survey research design. The design was considered appropriate because it permits an examination of influence and predictive contribution of perceived stigma and self-esteem on academic engagement without manipulating any variable. The study was carried out in Calabar Education Zone of Cross River State, Nigeria, which comprises seven Local Government Areas. Calabar Education zone hosts a large concentration of public (310) and private secondary schools under the supervision of State Secondary Education Board (education.crossriverstate.gov.ng). Population of this study were all learners with learning disabilities in public secondary schools in Calabar Education Zone. Due to the absence of disaggregated official data on learners with learning disabilities; accessible population (240) were identified using Learning Disabilities Screening Questionnaire (LDSQ).

From this population, a sample of 112 learners with learning disabilities was selected. The sample size was considered adequate for regression-based analysis. A multi-stage sampling procedure was used for the sample selection. First, purposive sampling was employed to select inclusive schools known to have learners with learning disabilities. Second, stratified sampling was employed to ensure representation across school and class levels. Finally, simple random sampling was used to select participants within each stratum.

Data were collected using a researcher-made structured questionnaire titled "Perceived Stigma, Self-Esteem, and Academic Engagement Questionnaire (PSSEAEQ)". The instrument consisted of two sections. Section A captured demographic information. Section B measured perceived stigma using adapted items reflecting peer perception, labelling, and social treatment; self-esteem using items structured along personal worth and academic confidence; and academic engagement across behavioural, emotional, and cognitive dimensions. All items were structured on four-points Likert scale ranging from Strongly Agree to Strongly Disagree. The instrument was subjected to face and content validation by three experts in special education and educational psychology to ensure its validity (clarity and relevance). A pilot test was conducted using 30 learners identified with LD outside the sample respondents. Reliability of the instrument was established using Cronbach's alpha, with a coefficient of .76, .81 and .72, respectively, based on instrument's subscales. Data collection was done after formal approval from school authorities was received either by the researcher or trained researcher assistant. The researcher or trained research assistant administered the instrument directly to participants during school hours with proper guidance and confidentiality. Retrieved instruments were screened to ascertain their completeness before collation.

Data was prepared for analysis by coding the responses, checking for missing values, and entering retrieved data into MS-Excel. Incomplete responses were excluded, while correctly filled instruments were organised according to variables. Inferential statistics of Simple linear regression analysis were used to determine the influence of perceived stigma and self-esteem on academic engagement, while multiple regression analysis was used to assess their joint predictive contribution. All hypotheses were tested at .05 level of significance.

Result

The first hypothesis stated that perceived stigma had no significant influence on academic engagement among learners with learning disabilities in inclusive schools in Calabar Education Zone. This hypothesis was formulated to test whether the observed variations in academic engagement could be attributed to perceived stigma or whether such variations occurred independently of it. Given that both variables were continuous and the aim was to examine predictive influence; simple linear regression was considered appropriate. This statistical tool allows for the estimation of the extent to which one independent variable predicts or influenced changes in a dependent variable. The result of this statistical analysis is presented in Table 1.

Table 1: Simple Linear Regression Analysis of the Influence of Perceived Stigma on Academic Engagement

Engagement		Mean	Std. Dev.	N			
Academic engagement		22.53	8.062	112			
Perceived stigma		19.99	7.342	112			
Model	R	R ²	ΔR ²	SEE			
1	.610 ^a	.372	.366	6.417			
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	2684.250	1	2684.250	65.185	.000 ^b	
	Residual	4529.670	110	41.179			
	Total	7213.920	111				
		B	β				
Model		B	SE	Beta	T	Sig.	95.0% CI
1	(Constant)	35.92	1.77		20.34	.00	32.42,39.42
	Perceived stigma	-.67	.08	-.61	-8.07	.00	-.83, -.51

From Table 1, statistical result yields r-value of .610, which suggests a moderate to strong association between the two variables. R^2 value of .372 shows that approximately 37.2% of the variance in academic engagement was explained by perceived stigma. This proportion is substantial within behavioural research. It suggests that perceived stigma is not just a peripheral factor; but a meaningful contributor to how learners engage academically. Adjusted R^2 value of .366 further supports the stability of this estimate. Overall model was statistically significant, $F_{(1, 110)} = 65.185$, $p < .05$, indicating that the predictive model provided a better fit than a model with no predictors.

The regression coefficient revealed a negative influence of perceived stigma on academic engagement ($\beta = -.61$, $t = -8.07$, $p < .05$). This implies that increases in perceived stigma were associated with decreases in academic engagement. The unstandardised coefficient ($B = -.67$) indicates that for each unit increase in perceived stigma, academic engagement decreased by approximately 0.67 units. Confidence interval did not include zero, which strengthens the reliability of this effect. These results provide sufficient evidence to reject the null hypothesis. Perceived stigma was found to have a significant and negative influence on academic engagement among learners with learning disabilities in inclusive schools in Calabar Education Zone. The pattern observed here suggests that social perception within the classroom environment may play a decisive role in shaping how actively learners participate in their academic tasks.

Hypothesis two

The second hypothesis stated that self-esteem had no significant influence on academic engagement among learners with learning disabilities in inclusive schools in Calabar Education

Zone. This hypothesis was necessary to determine whether variations in learners' academic engagement could be explained by differences in their self-evaluative perceptions. Since the objective involved examining predictive influence between a continuous independent variable and a continuous dependent variable, simple linear regression was employed. This method was appropriate because it estimates both the strength and direction of influence while accounting for variance explained in the outcome variable. Result of this analysis is presented in Table 2.

Table 2: Simple Linear Regression Analysis of the Influence of Self-Esteem on Academic Engagement.

		Mean	Std. Deviation	N			
Academic engagement		22.53	8.062	112			
Perceived Self-esteem		19.71	7.310	112			
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate			
1	.562 ^a	.316	.310	6.698			
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	2278.242	1	2278.242	50.774	.000 ^b	
	Residual	4935.678	110	44.870			
	Total	7213.920	111				
		B	β				
Model		B	SE	Beta	t	Sig.	95.0% CI
1	(Constant)	10.31	1.83		5.64	.00	9.67, 13.390
	Perceived Self-esteem	.62	.09	.56	7.13	.00	.447, .792

Result of the statistical analysis in Table 2 showed that self-esteem significantly influenced academic engagement. The model produced an R value of .562, indicating a moderate association between self-esteem and academic engagement. R² value of .316 suggested that 31.6% of the variance in academic engagement was explained by self-esteem. This level of explained variance is meaningful within educational research because, it points to self-esteem as substantial psychological factor linked with learner participation. The adjusted R² value of .310 confirm that the model retained stability after adjustments. Also, analysis of variance further revealed that the model was statistically significant, $F(1, 110) = 50.774$, $p < .05$. This indicates that the model provided a better prediction of academic engagement than a model without the predictor.

Regression coefficient indicates positive influence of self-esteem on academic engagement ($\beta = .56$, $t = 7.13$, $p < .05$). This suggests that higher level of self-esteem was associated with higher levels of academic engagement among the learners. The unstandardised coefficient ($B = .62$) implies that a one-unit increase in self-esteem resulted in an increase of approximately 0.62 units in academic engagement. The confidence interval did not cross zero, which strengthens confidence in the observed effect. Based on these results, the null hypothesis was rejected. Self-esteem had a significant and positive influence on academic engagement among learners with learning disabilities in inclusive schools in Calabar Education Zone. The pattern observed suggests that learners who perceive themselves as capable and worthy are more likely to participate actively and persist in academic tasks within inclusive classroom settings.

Hypothesis three

This hypothesis maintained that perceived stigma and self-esteem did not have a significant joint predictive influence on academic engagement among learners with learning disabilities in inclusive schools in Calabar Education Zone. This hypothesis was necessary to determine whether combined effect of both psychosocial variables provided stronger explanation of academic

engagement than each variable when considered independently. Given presence of two predictor variables and one outcome variable, multiple regression analysis was employed. This statistical technique was appropriate because it allowed for estimation of combined and individual contributions of multiple independent variables while controlling for their overlap. Table 3 present the result of the statistical analysis.

Table 3: Multiple Regression Analysis of the Joint Predictive Influence of Perceived Stigma and Self-Esteem on Academic Engagement.

Model	R	R ²	R ² adj	SEE	Change Statistics				
					ΔR^2	ΔF	df1	df2	Sig. ΔF
1	.74 ^a	.55	.54	5.46	.55	66.55	2	109	.00
Model	Sum of Squares			Df	Mean Square		F	Sig.	
1	Regression	3965.935		2	1982.967		66.547	.000 ^b	
	Residual	3247.985		109	29.798				
	Total	7213.920		111					
Model		B		β		Sig.	95.0% CI	Collinearity Statistics	
		B	SE	Beta	t			Tl	VIF
1	(Constant)	24.03	2.35		10.21	.00	19.36, 28.69		
	Perceived Self-esteem	.48	.07	.44	6.56	.00	.34, .63	.936	1.068
	Perceived stigma	-.55	.07	-.50	-7.53	.00	-.69, -.40	.936	1.068

Findings from the third hypothesis tested revealed that the combined model was statistically significant. The analysis produced r-value of .74, indicating a strong overall association between the predictors and academic engagement. r^2 value of .55 from the analysis suggests that 55% of the variance in academic engagement was jointly explained by perceive stigma and self-esteem. This represents substantial proportion; indicating that the two combine variables provide a more comprehensive explanation of academic engagement than when considered separately. The adjusted R^2 value of .54 confirms the stability of the model. The change statistics also showed that the contribution of the predictors to the model was significant, $\Delta F_{(2, 109)} = 66.55$, $p < .05$; indicating that the inclusion of both variables significantly improved the prediction of academic engagement.

Examination of the individual predictors showed that both variables made significant independent contributions to the model. Self-esteem had a positive influence ($\beta = .44$, $t = 6.56$, $p < .05$); indicating that higher self-esteem may associate with increased academic engagement when controlling for perceived stigma. Perceived stigma, on the other hand, had a negative influence ($\beta = -.50$, $t = -7.53$, $p < .05$), suggesting that higher levels of stigma were associated with reduced academic engagement, even when self-esteem was considered. The tolerance and variance inflation factor values indicated no multicollinearity concern, confirming that both variables contributed uniquely to the model. Based on these results, the null hypothesis was rejected. Perceived stigma and self-esteem had a significant joint predictive influence on academic engagement among learners with learning disabilities in inclusive schools in Calabar Education Zone. The pattern observed suggests that academic engagement is shaped by the inter-relationship between negative social perception and positive self-evaluation, rather than by either factor in isolation.

Discussion

Finding from this study that perceived stigma negatively influenced academic engagement may suggest that, social meaning attached to learning disabilities in inclusive classrooms may shape how learners participate in academic tasks. This pattern aligns with recent evidence that stigma associated with specific learning disabilities is linked with adverse academic and psychological outcomes. For instance, Haft et al. (2023) discovered that stigma and stereotype threat can significantly affect performance and engagement among learners with learning disabilities. Similarly, Donolato et al. (2022) reported that learning disabilities frequently co-occur with emotional and behavioural problems; potentially inhibiting active classroom participations. These studies support an idea that disengagement isn't just caused by cognitive difficulties; Instead, it might be a response to repeated negative social experiences. The present study extends this line of reasoning into Nigerian inclusive school context, where empirical evidence on stigma remains limited. It suggests that inclusive placement alone may not disrupt stigmatising interactions, and where such perceptions persist, they may quietly undermine the goals of inclusion.

The positive influence of self-esteem on academic engagement indicates that self-perception of learners can be a central factor shaping their academic behaviour. This finding is consistent with recent studies showing that learners with learning difficulties often report lower self-esteem, which in turn affects motivation and participation. Caqueo-Urizar et al. (2021) found that self-esteem in adolescents with learning difficulties was interconnected with their academic functioning in multiple perspectives. In a related study, Martin-Ruiz et al. (2023) observed that lower personal resources to engage were linked with emotional adjustment problems among learners with specific learning disabilities. These findings may suggest that self-esteem may function as a psychological condition that supports or constrains participation. In this present study, implications of the finding is that learners who perceive themselves as capable and valued are more likely to invest effort and remain involved in academic activities. This contributes to current knowledge by demonstrating that self-esteem is not peripheral to academic engagement but may be directly implicated in how learners respond to inclusive classroom demands.

Concomitant predictive effects of perceived stigma and self-esteem present a more comprehensive view of academic engagement among learners with learning disabilities. Evidence from recent research indicates that inclusive education outcomes are shaped by both environmental and individual factors. Yazıcıoğlu et al. (2025) showed that learners with learning disabilities often experience school differently from their peers across social and academic domains, even within the same classroom. In addition, McNicholl et al. (2023) found that improvements in psychosocial conditions were associated with better engagement outcomes. The present study advanced this perspective by demonstrating that stigma and self-esteem operate together rather than independently. This interaction suggests that reducing stigma without strengthening self-esteem, or improving self-esteem without addressing stigma, may produce limited gains. This study, therefore, contributes a more vivid explanation within the Calabar Education Zone, indicating that effective inclusion may depend on addressing both the social environment and the learner's internal sense of worth. Such a composite perspective provides a more definitive point of intervention and brings into focus an aspect of inclusion that is not usually addressed in practice.

Conclusion

This study emphasised that academic engagement among learners with learning disabilities in inclusive schools cannot be fully understood through structural access or instructional provision alone. What emerged may be a layered reality in which social climate of the classroom and learner's internal sense of worth operate together to shape participation. Inclusion, in this sense,

appears to succeed or weaken not at the point of placement but within everyday interactions that either affirm or diminish the learner. The study therefore points toward a shift in emphasis. Efforts aimed at strengthening inclusive education within Calabar Education Zone may need to move beyond physical integration and curriculum adaptation to include deliberate attention to how learners are perceived, treated, and supported psychologically. Such a direction carries practical and theoretical weight. It invites educators and policymakers to consider inclusion as both a social and developmental process, where dignity, belonging, and self-belief form part of the conditions required for meaningful academic involvement.

Recommendations

1. Public secondary Schools through state secondary education board should implement anti-stigma programmes that promote positive peer attitudes and inclusive classroom interactions.
2. Teachers should consistently apply strategies that build learners' self-esteem through supportive feedback and differentiated instruction.
3. Educational authorities should integrate academic supports with psychosocial services to strengthen both participation and learner well-being.

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