



Influence of School Climate, Collective Efficacy and School Engagement on School Connectedness of in-School Adolescents in Ibadan North, Oyo State, Nigeria.

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Abstract

This research aims to investigate the interplay between school climate, collective efficacy, school engagement, and their combined influence on school connectedness among in-school adolescents in Ibadan, Oyo State, Nigeria. This study utilized a descriptive research design of correlational type to examine the relationships and predictive power of these variables. The sample consists of 400 secondary school students randomly selected in Ibadan metropolis, Oyo State. Standardized instruments were administered to the participants. Three research questions were raised. Descriptive statistics, Pearson product moment correlation and multiple regression model were used to analyse the data collected. The outcome showed that the three predictor variables together were responsible for 58% of the variance in the total ($F_{(3,396)} = 813.471$; $R = .747$; $R^2 = .558$; Adj. $R^2 = .543$; $P < 0.05$). Also, each of the three independent variables made separate and distinct contributions to the prediction of school connectedness: school climate ($\beta = .074$; $t = 1.002$, $P < 0.05$); collective efficacy ($\beta = .498$; $t = -6.561$, $P < 0.05$); school engagement ($\beta = .710$; $t = 9.490$, $P < 0.05$). This study's three independent variables have sufficient potential to influence school connectedness. The study recommends a serene school environment, enhance teacher's self-efficacy, and encourage student engagement and connectivity.



Introduction

Adolescence is a crucial stage of development characterized by substantial transformations in social, emotional, and cognitive aspects (Eccles & Roeser, 2020). It is a challenging phase characterised by a surge in the drive for autonomy as well as a plethora of physical, behavioural, and psychological changes. Adolescents nevertheless need adult care and a nurturing environment to help them attain their full potential, regardless of how much they value autonomy; failing to do so causes behavioural and psychological problems (UNICEF, 2020). The school environment is crucial in influencing the experiences and outcomes of adolescents at this stage (Wang & Eccles, 2020). To achieve this, in-school adolescents must have a sense of belonging at school.

School connectedness refers to the feeling of belonging, connection, and involvement with the school community (Catalano et al., 2021). When students perceive that the adults at their school demonstrate concern for their academic achievements and personal value, they are likely to experience a stronger sense of connection to the school community. (Uzoehina and Okoye, 2020). School connectedness is seen as a substantial protective factor against a range of adverse consequences, such as disengagement from academics, substance abuse, and mental health issues (Resnick et al., 2023). This is because students who feel connected to their teachers can express deep concerns that are personal to them without fear of being judged or criticized and can be well guided to making meaningful decisions.

The interaction between students and the school occurs when students feel the kind of

warmth the home gives them in school; they perceive that their teachers are committed to their growth intellectually and otherwise, their interest are considered in decisions made by the school and their peer are encouraged to relate well with them as do their siblings at home. Students who feel this connected to their school are consistently delighted to attend their school and open to learn from their teachers and peers, they are better adjusted psychologically and are more respectful to the significant others in the school. Yuen and Wu (2023) have it that the adolescents form crucial connections to their school, teachers, and classmates throughout their time there; these bonds may safeguard their psychological wellness and help them thrive.

School climate pertains to the overall nature and atmosphere of the school setting, including elements such as safety, support, and inclusivity (Cohen et al., 2022). Prior research by Wang and Pei (2021) established a causal relationship between school connectedness and an appealing school atmosphere. One sign of school connectedness is the school climate, because students feel as secure and comfortable in a safe setting as they do at home. Therefore, one of the strategies for preventing the onset of student problem behaviour and other psychosocial problems is creating a pleasant school environment where students feel secure, valued, and accepted (Kern, 2015; Pikulski et al., 2020). An affirming and all-encompassing educational environment cultivates a sense of belonging and emotional connection among pupils, consequently augmenting their sense of affiliation with the school community (Bradshaw et al., 2020).



The school climate is an integral aspect of school connectedness, this is because the climate of the school is not limited to the weather condition but the overall safety and serenity of the environment which is determined majorly by the nature of persons in it. Students and staff report better levels of physical and emotional safety, higher morale, and a greater sense of pride in schools that comprehend and implement strategies that foster a supportive school environment. As a result, there is a strong feeling of connectedness among staff, students, and families at the school. Student performance, attendance, and teacher retention are all greater and student dropout rates are lower when students and teachers believe they are attending a pleasant school (NCSSLE, 2022; U.S. Department of Education, 2016 in Magby, & Cerna, 2023).

Collective efficacy is the shared idea within a community that they have the collective capability to accomplish common objectives and bring about beneficial transformations (Bandura, 2021). Collective efficacy in the educational setting refers to the shared confidence among teachers and administrators in their capacity to effectively enhance student learning and well-being (Goddard et al., 2024). Studies indicate that increased levels of collective efficacy are linked to enhanced school connectivity among children (Moore & Furlong, 2022). Students' perception of instructors and staff's dedication to their academic achievement and well-being positively influences their sense of belonging to the school community. Moreso, Schechter and Tshannen-Moran (2006:482) assert: "Collective teacher efficacy influences student achievement because greater efficacy leads to greater effort and persistence that result in better performance." Consequently, better

performance promotes better liking of both the subject and the subject teacher, creating a sense of connection to the school.

It is important to differentiate between teacher's efficacy and collective teacher's efficacy. Teachers' efficacy reveals the confidence a teacher has in his/herself to motivate his/her students to achieve, by creating an enabling environment for success. However, it is imperative that a teacher equally holds the same level of confidence in other teachers as well as the school leadership in pursuing the same goal for success. Skaalvik, and Skaalvik, (2019) believed that cooperative and team-based mastery experiences—like working together to lessen discipline issues at school—are especially well-suited for boosting collective efficacy beliefs because they show what "we, as teachers of this school," can achieve as a team. Consequently, collective efficacy will be more effective in ensuring school connectedness of students that just a single teacher's efficacy.

School engagement refers to the extent of students' active participation in both academic and extracurricular activities, as well as their emotional commitment to the school community (Fredricks et al., 2023). Previous research has continuously demonstrated a favourable correlation between school involvement and school connectivity, as reported by Wang and Degol in 2021. Students who actively participate are more inclined to form robust relationships with both their peers and teachers, resulting in a heightened feeling of connectivity to the school environment. Student engagement results from interactions between the learning situation and the "self," or the satisfaction of developmental needs for competence, autonomy, and connectedness, in accordance



with the Self-System Model of Motivational Development (Skinner et al., 2008).

Students as social beings have ingrained in them the need to interact with significant others and be a part of anything that makes for their growth and development. When students are forced to learn in isolation as in the case of COVID 19 pandemic, they feel disconnected and uninterested in learning. In fact, Sofianidis et al., (2021) has it that when students are learning remotely, teachers may miss signs of confusion or exhaustion that they would pick up on personally. In order to sustain behavioural engagement in learning activities even when they are bored, worried, or irritated, adolescents benefit from connectedness to other students and teachers (Skinner, 2016). In fact, according to Allen et al. (2021), chances for social engagement within the school community play a major role in shaping adolescents' sense of connectedness to teachers and peers.

Several studies have examined school connectedness in regard to constructs like collective efficacy and teachers feeling of belongingness Skaalvik, and Skaalvik, (2019), school connectedness and students' outcome Uzoechina, and Okoye, (2020), School connectedness of individuals with emotional and behavioural disorders, Marsh, and Cumming, (2021), school connectedness and school climate, Mahabbati et'al, (2022). Although the significance of school connectivity is acknowledged, there is paucity of research that investigates the collective influence of school climate, school engagement, and collective efficacy on school connectedness of in-school adolescents. This is the void this study seeks to address.

Research Questions

The study addressed the following research questions, which were developed to direct the study's conduct:

1. What pattern of relationship exists between independent variables (school climate, collective efficacy school engagement) and school connectedness of in-school adolescents in Ibadan, Oyo State?
2. What is the joint contribution of the independent variables (school climate, collective efficacy school engagement) and school connectedness of in-school adolescents in Ibadan, Oyo State?
3. What is the relative contribution of the independent variables (school climate, collective efficacy school engagement) and school connectedness of in-school adolescents in Ibadan, Oyo State?

Instrumentation

The study employed the School Climate questionnaire (SCQ) as a tool to assess the school climate in this research. The scale was developed by Bocharov, Korneev, and Khlokov in 2022. There are a total of 22 items in the sample, which consists of Russian school kids. The developers demonstrated that the questionnaire possesses three distinct features, with its reliability being deemed excellent. Consequently, they endorse its utilisation as a dependable and valid tool for researchers and practitioners in several domains of educational psychology. The response format utilised a 4-point scale. The Cronbach's alpha coefficient was used to assess the reliability of the scales. The 95% confidence intervals for Deviant Behaviour, School Well-Being, and Subjective Unsafety were 0.62 (0.61; 0.64), 0.59 (0.58; 0.61), and 0.72 (0.71; 0.74)



respectively. This study calculated the Cronbach alpha coefficient to be $\alpha=.69$.

The measurement of collective efficacy in this study utilised the Collective Efficacy Scale (CE-Scale), which is a condensed version of the original 21-item instrument developed by Goddard, Hoy et al. (2000). The CE-Scale consists of 12 items. The correlation coefficient ($r = .983$) between the CES and the CTES indicates a strong relationship, suggesting that the short version of the instrument is closely associated with the original version. The scale ranges from strongly disagree (1) to strongly agree (6). The measure has both positively (+) and negatively (-) phrased items inside the scale to ensure that responders are not influenced. Goddard demonstrated that the CES exhibited a high level of internal consistency ($\alpha = .94$). The short form also exhibits strong validity and reliability, as supported by Goddard (2002). Scoring is done by inverting the scores for the elements numbered 3, 4, 8, 9, 11, and 12. And then calculating the mean score for each of the 12 items. In this study, a four-point scale was utilized and a Cronbach alpha coefficient of $\alpha=.89$ was found.

School engagement was measured by the students' engagement scale developed by Lam & Jimerson, 2008. The 10-item SESQ is a self-report, Likert-type questionnaire with emphasis on comprehensively assessing the concept of student engagement. One composite is included in the SESQ (student engagement in the schools). Students typically require 35 minutes to finish, responding on a Likert-type scale of 1 to 5 (i.e., 1 = never, 5 = always). For this study, a coefficient alpha of $\alpha=.77$ was found.

School connectedness in this study was measured by Students' Perception of School Cohesion developed by Springer et al (2009). The items are 10 in number with 4-points

scale response format. According to the authors, the two internal consistency estimates of reliability computed for the Student Perception of School Cohesion scale provided similar results. For the "Supportive School Relationships" subscale, the values computed from the Spearman- Brown corrected correlation and coefficient alpha were .71 and .74, respectively. For the "Student-School Connectedness" subscale, the Spearman-Brown corrected correlation and coefficient alpha were .75 and .72, respectively. Lastly, for the "Student-Teacher Connectedness" subscale, the coefficient alpha was .72, which is equivalent to the Guttman-Flanagan split half. For the full scale, Spearman- Brown corrected correlation and coefficient alpha were .87 and .84, respectively. These values indicate good internal consistency. This coefficient alphas of $\alpha=.89$ was obtained for this study.

Methodology

Research Design: For this research, a descriptive research design of correlational type was utilised. This was done to ascertain the strength and direction of the link between the predictor and the criterion variables. The study location was Ibadan North Local Government Area, situated in Ibadan, Oyo State, Nigeria.

Participants: The population was made up of all the adolescents who are enrolled in senior secondary school in Ibadan North Local Government Area in Ibadan, the capital of Oyo state, Nigeria. A simple random sampling was used to select five (5) secondary schools in Ibadan North Local Government. Eighty (80) students were randomly selected in each school making the total number of 400. Two hundred and seven (207) males and one hundred and ninety-



three (193) females within the age range of 12-18 years were used for this study. Those who were willing to participate in the study irrespective of their gender were recruited for the study. The analysis of biodata information obtained from the participants showed that 216 (54.0%) were Christians,

182 (45.5%) were Muslims while 2 (0.5%) practiced African religion.

Methods of Data Analysis

Multiple regression analysis, Pearson Product Moment Correlation, and descriptive statistics were used to analyse the data.

Results

The results obtained from the analysis of the data collected from the respondents are presented in the Tables 1 to 3 as follows:

Table 1: Descriptive statistics and the correlation matrix of the relationship between school climate, collective efficacy, school engagement and school connectedness of in-school adolescents

Variables	N	M	SD	1	2	3	4
School climate	400	51.61	5.148	1.00			
Collective efficacy	400	135.53	23.007	.284**	1.00		
School engagement	400	52.00	12.285	.315**	.668**	1.00	
School connectedness	400	26.47	7.213	.299**	.588**	.627*	1.00

The result in Table 1 displayed that all the predictor variables under study significantly correlated with the criterion measure (school connectedness). The result also indicated a strong relationship between school climate and school connectedness ($r = .299$, $p < .05$) as well as positive relationships between collective efficacy and school connectedness ($r = .588$; $p < .05$), also there is a significant relationship between school engagement and school connectedness ($r = .627$; $p < .05$). This result indicates that increasing school climate, collective efficacy and school engagement will definitely increase the school connectedness of in-school adolescents.

Table 2: Summary of regression of joint effect of independent variables on school connectedness

Model	R	R. Square	Adjusted R. square	Rsd. Error of the Estimate
1	.747 ^a	.558	.543	.343

ANOVA

	Sum of Square	df	Mean Square	F	Sig.
Regression	17859.654	3	5953.218	813.471	.000 ^a
Residual	2898.043	396	7.318		
Total	20757.698	399			

The results presented in Table 2 indicate that the combined effects of the independent factors, namely school climate, collective efficacy and school engagement significantly contribute to the prediction of school connectedness. The result yielded ($F_{(3,396)} = 813.471$; $R = .747$; $R^2 = .558$; Adj. $R^2 = .543$; $P < 0.05$). The result indicated that the independent variables together accounted for about



58% of the total variance in school connectedness while other variables outside the covering of this study explained the rest 42% variance.

Table 3: Linear Contribution of Predictor Variables to School Connectedness

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	T	
Constant	2.323	.437		5.315	.000
School climate	.007	.007	.074	1.002	.319
Collective efficacy	.017	.003	.498	-6.561	.000
School engagement	.058	.006	.710	9.490	.000

The results shown in table 3 demonstrate the individual impact of each predictor variable on the prediction of school connectedness, as well as their respective levels of statistical significance. The results indicated that the three predictor factors had significant independent contributions to the prediction of school connectedness. Specifically, school climate ($\beta=.074$; $t=1.002$, $P>0.05$), collective efficacy ($\beta=.498$; $t=-6.561$, $P<0.05$), and school engagement ($\beta = .710$; $t= .9.490$, $P<0.05$) were shown to be significant predictors. In terms of the extent of their respective contributions, school engagement demonstrates a greater magnitude than collective efficacy, while collective efficacy, in turn, exhibits a greater magnitude than school climate.

Discussion

This study examined the combined and comparative influences of school climate, collective efficacy, and school involvement on the prediction of school connection among adolescents attending school in Ibadan North, Ibadan, Oyo State, Nigeria. The study also examined the pattern of correlation between the predictor and the criteria variables. This study aimed to predict the level of school connectivity among in-school adolescents in Ibadan North, Ibadan, Oyo State, Nigeria by examining the combined and comparative contributions of school climate, collective efficacy, and school involvement. The study also examined the pattern of correlation between the predictor and the criteria variables. According to the study's findings, school connectivity was greatly affected by the predictor variables, which included school climate, collective efficacy and school engagement. There is no way that a chance occurrence could account for 58% of the variance in the predictor variable affecting

school connectedness. The findings of this study ascertains the likelihood of in-school adolescents forming a connection to the school increases when there is a high level of enabling school climate, collective efficacy, and school participation.

This study was corroborated by some researchers. Bradshaw et al (2020) revealed that educational environment cultivates a sense of belonging and emotional connection among pupils, consequently augmenting their sense of affiliation with the school community. Wang and Pei (2021) in their study showed that there is a direct correlation between a positive school climate and school connectedness. Hence, when students feel safe physically, emotionally, and psychologically, they will be more connected to the school than those who see the school environment as threatening, hostile and uncomfortable

According to this study, collective efficacy has been proven to be more effective



in ensuring school connectedness than an individual's efficacy, this is the teacher's own belief about the staff's abilities that might have an impact on their experiences and performance. This result was confirmed by a study by Moore and Furlong (2022) who indicated that increased levels of collective efficacy are linked to enhanced school connectivity among children. Shchechter and Tshannen-Moran (2006) also corroborates this study that the collective efficacy of teachers affects student achievement because higher efficacy encourages more effort and perseverance, which improve performance, which in turn results in better connection with the school.

This study further revealed that school engagement highly correlates with school connectedness. The study aligns with that of Allen et al (2021) who revealed that opportunities for adolescents to participate socially in their school community have a major role in shaping their sense of connectedness to teachers and their classmates. When students are given certain roles in the school, a sense of responsibility makes them committed to ensuring success in that endeavor. This in turn can promote connectedness among such students. One of the reasons for the significance of this study drawing inference from Olugbemi and Olawole (2021), could be as a result of exposure to peer influence within the school settings which could motivate students to develop critical social skills such as assertiveness, negotiation, conflict resolution and also engage in beneficial activities such as academic clubs and sports.

Conclusion

This study found important connections between school climate, collective efficacy, school engagement, and school

connectedness among in-school adolescents. According to the results, a school setting that is positive and supportive, with a good school climate and high levels of collective efficacy, is key to getting students more involved in school and making them feel more connected to the school community as a whole.

In addition, the study shows how important collective efficacy is for helping adolescents feel connected at school. Students are more likely to feel like they belong at school when teachers and managers believe in their ability to help students learn and be healthy. The value of creating a collaborative and cohesive school culture where teachers work together to make a safe place for all students to learn is emphasized by this. The results also stress how important school engagement is as a major factor affecting school connectedness among in-school adolescents. Students who are actively involved in school, take part in extracurricular and academic activities, and care about the school community are more likely to form strong relationships with teachers and peers, which makes them feel more connected.

It is therefore recommended that promotion of positive school climate, help teachers feel like they can do their jobs well, and get students engaged in order to improve school connectedness as well as adolescents' well-being and positive school experiences. These results have implications for school-based interventions and policies that aim to make schools more supportive and welcoming places where students feel like they fit and are a part of the school community.

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