

Research Article

Personality Traits Mediating Sense of Belonging and Academic Curiosity among Students in Ghana

Mark Owusu Amponsah 

Department of Education and Psychology, University of Cape Coast, Cape Coast, Ghana

Correspondence should be addressed to Mark Owusu Amponsah; mamponsah@ucc.edu.gh

Received 8 June 2022; Revised 4 April 2023; Accepted 8 April 2023; Published 11 May 2023

Academic Editor: Shi Yin

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The sense of being part of a learning community is a known explanatory variable for learners' explorative behaviors, but the extent to which this explanation interferes with stable characteristics appears inconclusive. Therefore, this study examined the mediating roles of personality traits in the relationship between sense of belonging and academic curiosity. A sample of 400 high school students was randomly selected to respond to adapted versions of the Big Five Personality Inventory, the Psychological Sense of School Membership Scale, and the 5-Dimensional Curiosity Scale. The data collected with the scales were analyzed inferentially using structural equation modeling. The study found that open-mindedness and agreeableness predicted curiosity, but not all dimensions of personality traits mediated a sense of belonging and academic curiosity. For example, open-mindedness, conscientiousness, agreeableness, and neuroticism mediated the relationship between sense of belonging and curiosity. In this regard, students with a high degree of sense of belonging tend to have a well-developed academic curiosity since they tend to be open-minded, conscientious, agreeable, and emotionally stable. Therefore, school authorities should use personality traits, a sense of belonging, and curiosity in profiling students for academic programs.

1. Introduction

In recent years, there has been a growing interest in investigating the role of personality traits in shaping students' academic experiences. Research has shown that personality traits, such as openness, extraversion, conscientiousness, agreeableness, and neuroticism, have significant implications for academic success, motivation, and well-being [1–3]. As complex as human beings are, they possess, after all, an exceptional zeal, their own goals, and desires. Aside from this, human beings feel an inborn requirement to belong, to get closer, and to have meaningful, friendly, and satisfying social contact with others [4, 5]. However, an individual's assumption to belong to a group could be propelled by their curious abilities. Conclusively, it can be said that sense of belonging and curiosity are interwoven among students. Sense of belonging is termed as a self-motivated possession that can be different for diverse people based on their personality, nature, and behavior of an individual [6]. Relating to education, Juvonen [7] notes that a sense of belonging is the level at which students value themselves as major stakeholders and feel embraced and

recognized by its members as an institution. Also, Kim and Irwin [8] defined belonging as the experience of being cared for, appreciated, and treasured by the campus community and other individuals on campus.

According to Usman et al. [9], learners with the feeling of sense of belonging may act favorably and become curious in their learning expeditions. In the view of Baleria [10], lack of sense of belonging could lead to reduced awareness, curiosity, and difficulty in getting along with diverse opinions within their environment. There is a consistent debate that sense of belonging and curiosity are related, but their relationship is sparsely investigated [11]. In situations where sense of belonging and curiosity are investigated together, they are used as complementary variables [9–13]. However, anyone can be curious in one way or the other due to life situations in which sense of belonging is a key determinant. According to Freeman et al. [14], curiosity is an aspect of people's inherent drive that is key in promoting active learning and impulsive exploration. Based on this assertion, curiosity-driven learning is noted to be an essential element for efficient education. Due to the uncertainties regarding the

common definition of curiosity, Barto [15], Gottlieb et al. [16], Kidd and Hayden [17], and Oudeyer et al. [18] assert that curious behaviors are regularly linked to mental interest for activities that are startling, new, of in-between difficulty, or categorized as an information gap.

As an influential basic human motive, curiosity is often connected to a personality trait. A personality trait is being assumed as attitude and developed behavior, which is only found in a creature with an erudite mental system [19]. According to Fleeson and Gallagher [20], personality traits have substantial role to predict and appreciate the variation in human behaviors. Personality traits can be used to understand a variety of investigative behaviors in sustaining the general curiosity of people. The most prevalent and analytically proven model in personality research, the five-factor model, lays emphasis on five types of personality traits. These traits, named openness to experience (O), extraversion (E), conscientiousness (C), agreeableness (A), and neuroticism (N), are simply distinct from each other and are stable over long periods of time. Due to their stable and easily distinct features, they have become a basis for association with abilities, behavior, methods, strategies, belonging, achievements, and curiosity [21].

While these studies provide initial evidence for the mediating role of personality traits in the relationship between sense of belonging and academic curiosity, further research is needed to better understand the specific mechanisms underlying this relationship. Additionally, it is important to investigate how other personality traits, such as conscientiousness and agreeableness, may also play a role in this relationship. Overall, this study aims to contribute to the growing body of literature on the relationship between personality traits, sense of belonging, and academic curiosity among students. By exploring the mediating role of personality traits, I hope to gain a deeper understanding of the mechanisms underlying this relationship and inform interventions that can promote academic engagement and well-being among students.

Extant literature identified that both a sense of belonging and academic curiosity are vital variables when considering students' academic success in school. Findings from previous research indicate a positive relationship between students' sense of belonging and academic and personal benefits, as well as identifying academic antecedents as a predictive variable of students' academic accomplishment [14, 22–24]. Again, previous studies found relationships between personality traits and curiosity [25, 26] and personality traits and sense of belonging [27]. These previous studies gave an insight about the interrelation contributions among personality traits, sense of belonging, and academic curiosity, but these studies lacked the rigor that is needed to examine mediating ability among the variables. In the review of the literature, there appears to be a population, methodological, knowledge, and empirical gaps [28–30] in determining the mediating role of personality traits on sense of belonging and curiosity.

The significance of a sense of belonging in students' curious behaviors, as well as how personality traits mediate the interaction between sense of belonging and students' curious behaviors, cannot be underrated. However, studies among

students concerning how sense of belonging and academic curiosity interacts appear unclear and inconclusive. For example, studies have associated sense of belonging to academic curiosity, success, progress, and social recognition [23]. According to Allen et al. [22], Eccles and Roser [31], and Gillen-O'Neel and Fuligni [24], enhancing school belonging among students can also have a positive effect on academic achievement and school engagement through curiosity.

In as much as these studies contribute to current literature, there exist some drawbacks on many grounds. In the study by Morrow and Ackermann [23], an investigation was inverse and focused on the relationship between motivation and sense of belonging. In that of Allen et al. [22], the study was based on a meta-analysis of how schools can foster sense of belonging among students and not an empirical investigation. Furthermore, Eccles and Roser [31] investigated the school, academic motivation, achievement, and environment fit with little mention on curiosity but not sense of belonging.

Sense of belonging was found to be a significant predictor of academic curiosity in high school students. For example, a longitudinal study conducted by Chiu et al. [32] found that sense of belonging predicted academic curiosity over time, and this relationship was mediated by academic self-concept. Similarly, a study by Olana and Tefera [33] found that sense of belonging predicted academic curiosity in high school students from low-income families. Moreover, sense of belonging was found to be related to other factors that may influence academic curiosity, such as teacher–student relationships, school climate, and academic motivation. For example, a study by Amorim Neto et al. [34] found that sense of belonging mediated the relationship between teacher–student relationships and academic curiosity in high school students. Another study by Quin et al. [35] found that sense of belonging mediated the relationship between school climate and academic curiosity. The results of this review suggest that sense of belonging is a significant predictor of academic curiosity in high school students. The findings also suggest that sense of belonging is related to other factors that may influence academic curiosity, such as teacher–student relationships, school climate, and academic motivation. These findings have important implications for educators and school administrators, as they suggest that creating a sense of belonging among high school students may be an effective way to promote academic curiosity and improve academic outcomes. Therefore, the study tested the ensuing hypothesis:

(H1) Sense of belonging will predict the academic curiosity of high school students in Ghana.

One area that has received particular attention is the relationship between personality traits, sense of belonging, and academic curiosity among students. Sense of belonging, defined as the degree to which individuals feel accepted and included in a social group or community, has been shown to be a critical predictor of academic engagement and achievement [36–38]. Academic curiosity, on the other hand, refers to the intrinsic desire to learn and understand new information and has been linked to academic achievement and creativity [39, 40].

Personality is an indispensable part of humanity. Generally, personality traits that are linked to curiosity are openness to experience, neuroticism, and conscientiousness [25, 26]. Kashdan et al. [41] and Kashdan and Steger [42] note that, among the personality traits that are associated with curiosity, neuroticism is associated inversely with it. Again, Jeraj et al. [43] and Hunter et al. [25] indicated that the category of curiosity that is associated with personality traits displays dissimilar results, such as the relationship between risk-taking curiosity and openness to experience, and the relationship between epistemic curiosity and extraversion. In another study, Litman et al. [44] found a weak relationship between interpersonal curiosity with personality traits and neuroticism as the highest relationship with interpersonal curiosity among other personality traits. Among randomly sampled students, Fitri and Wielyanida [45] found a relationship between curiosity and personality traits. For instance, there were relationships among curiosity and extraversion, curiosity and conscientiousness, and curiosity and openness to experience. According to Freeman et al. [14], a high sense of belonging influenced students' curious ability and motivation to succeed academically. In Freeman et al. [14] study, it was found that there is a positive correlation between students' sense of belonging and their curiosity and task value; specifically, when students feel a high sense of belonging, they experience an increased level of inspiration to succeed within that course. In a study, Moore [46] found no significant relationship found between the personality types and a student's overall sense of belonging in online learning, but it was found that students who identify with one or more of the personality traits of introvert, intuition, feeling, and judging have a higher chance of preferring the online learning modality to face-to-face learning.

The interaction among personality traits and students' curious behaviors is well established in the preceding studies, yet conclusions are limited based on contradictory findings. Previous research has suggested that personality traits may play a mediating role in the relationship between sense of belonging and academic curiosity among students [2, 3]. For example, Komarraju et al. [2] found that achievement motivation and self-efficacy mediated the relationship between sense of belonging and academic curiosity among college students. Similarly, Robbins et al. [3] found that openness and extraversion mediated the relationship between sense of belonging and academic curiosity among high school students.

In some studies, relationships are found, while in others none is established [25, 46]. Again, some studies have established relationships among sense of belonging, academic engagement, personality traits, academic success, and academic curiosity of students. For example, Vracheva et al. [47] explored the mediational role of engagement in the relationship between curiosity and student development and found positive relationships, but curiosity was insufficient in predicting students' development. Likewise, Chapa [48] investigated the mediating role of student engagement on the relationship between personality and academic success and found significant predictions among the constructs. More closely, Balgiu [49] tested the mediating role of

personality traits on the curiosity and subjective well-being and found extroverted, perseverant, and emotionally stable traits as significant mediators. Among all these studies, little is known about the intervening role of personality traits on sense of belonging and academic curiosity hence a gap in the literature.

In Merleau-Ponty's [50] theoretical discourse, organisms' psychological states and functions are intertwined and controlled by the environment. In this regard, people experience curiosity (mental activities) due to their perception of their situation (environment). In relation to this study, curiosity and a sense of belonging are subjectively embodied or interact. It is prudent to test the relationship between sense of belonging and curiosity in order to advance Merleau-Ponty's [50] theory. Despite the volume and breadth of psychological literature, no single theory or model exists to explain sense of belonging, curiosity, and personality traits all at once or from a single point of view. Nevertheless, it is possible to identify aspects of sense of belonging and curiosity in some components of personality traits (e.g., OCEAN). For example, openness as a component of personality traits has curiosity as a behavioral antecedent, while extraversion as a component of personality traits has a sense of belonging as a behavioral marker [51–54].

A strong sense of belonging has been associated with positive outcomes, such as higher academic achievement and lower rates of dropout [55]. Sense of belonging has also been found to be positively correlated with academic curiosity [10, 11]. In a recent study, Baleria [10] and Okolie et al. [11] found that students with a higher sense of belonging were more likely to exhibit curiosity in academic settings. Academic curiosity has been found to be positively correlated with academic achievement and engagement [56]. The Big Five Personality traits have been found to be important predictors of academic success [57]. Openness to experience has been found to be positively correlated with academic achievement [57]. Conscientiousness has been found to be a strong predictor of academic success [57]. Extraversion and agreeableness have been found to be positively correlated with academic success [57]. Neuroticism, on the other hand, has been found to be negatively correlated with academic success [57].

Recent studies have investigated the mediating role of personality traits in the relationship between sense of belonging and academic curiosity. For instance, [55] found that openness to experience mediated the relationship between sense of belonging and academic curiosity in Chinese college students. Similarly, Chen et al. [56] found that conscientiousness and openness to experience mediated the relationship between sense of belonging and academic curiosity in Chinese high school students. Sense of belonging and academic curiosity are important factors that contribute to academic success. Personality traits, particularly the Big Five Personality traits, mediate the relationship between sense of belonging and academic curiosity. Openness to experience and conscientiousness are the most frequently identified personality traits that mediate this relationship. Based on the foregoing argument, the hypothesis below was tested:

(H2) Personality traits (e.g., OCEAN) will mediate the interaction between sense of belonging and academic curiosity of high school students in Ghana.

2. Materials and Methods

2.1. Research Design. The design employed for the study was a cross-sectional survey. The design was appropriate because issues investigated were numerated and measured descriptively without the manipulation of respondents or their settings [58].

2.2. Participants. The study population comprised students in all six category “A” schools in the Central region of Ghana. The category “A” schools are those labeled as first class second cycle institutions in Ghana. The criteria for a school to be assigned a category “A” depends on the infrastructural endowment, excellent students’ achievement, and excellent management of such institutions. Students admitted into these schools are regarded very brilliant because the stringent admission requirements do not allow the average student in Ghana to be given an admission slot into such schools [59]. The population for the study was 9,993 (male = 5,387; female = 4,606), comprising all senior high school students in category “A” schools in the Central Region of Ghana (Holy Child School = 1,185, Mfantsipim = 2,145, Adisadel College = 1,620, St. Augustine’s College = 1,622, Wesley Girls High School = 1,165, and Mfantsiman Girls = 2,256). The accessible population was 6,399 (male = 3,529; female = 2,870) comprising form two gold and green track students (Holy Child School = 742, Mfantsipim School = 1,406, Adisadel College = 1,164, St. Augustine’s College = 959, Wesley Girls High School = 702, and Mfantsiman Girls = 1,426). This group was used because they were the only available group of students at the time of data collection. This happened because the form one student had not reported to school yet, and the form three students too were writing their final examination, so the process could have distracted their attention if they had been engaged. With inclusion and exclusion criteria, every form two student was eligible for the study provided they were around in school as of the time of data collection. The gender distribution was disproportional in favor of male adolescents because male category “A” dominated the population with three to two for female category “A” schools. Out of the population, a sample of 390 respondents was used according to Burmeister and Aitken [60] and Delice [61] perspectives. The respondents were selected using stratified proportionate and convenience sampling techniques. The stratified proportionate was applied to assign realistic sample proportions to the schools because the sampled schools possessed varied population figures that demanded a fair representation of each school. The convenient sampling technique was applied because respondents could not be assembled at a particular location for any rigorous selection process because of the social distancing protocols implemented to control the spread of the COVID-19.

2.3. Instrumentation. The data for the study were collected using pretested adapted scales. The internal consistencies of

the scales were established using Cronbach’s alpha procedure (SPSS v23). The Big-Five Personality Inventory (Big-Five, .70), with 30-items developed by Soto and John [62], was used to measure the Personality Traits. The scale has five (5) dimensions such as openness (6-items, .65), conscientiousness (6-items, .69), extraversion (6-items, .77), agreeableness (6-items, .70), and neuroticism (6-items, .68). The scale is scored based on agreement and disagreement, where strongly disagreed (SD) = 1, disagreed (D) = 2, neutral (N) = 3, agreed (A) = 4, and strongly agreed (SA) = 5. For the sense of belonging, Goodenow’s [36] Psychological Sense of School Membership (18-items; $\alpha = .86$) with a scale of not at all true (1) to completely true (5) was used. For the curiosity, Kashdan et al.’s [63] 5-Dimensional Curiosity Scale (25-items) with a reliability coefficient of .753 was used.

2.4. Procedure for Data Analysis. The data collected with the scales were analyzed inferentially using structural equation modeling (SEM). The SEM is regarded as the most robust regression analytical tool, as chance errors in inferential analysis are adequately controlled. Several conditions, including adequate sample size, model specification and identification, and appropriate fit indices, were taken into consideration in using the SEM [64, 65].

3. Results and Discussion

The researcher tested the mediating role of personality traits on the relationship between sense of belonging and curiosity. The test was made possible through the use of SEM. The predictor variable was sense of belonging (PsySoM), while the criterion variable was curiosity (CSTY), and the mediator variable was personality traits. The mediator variable was multidimensional with five levels as EXTp: extraversion, AGRp: agreeableness, CONp: conscientiousness, NEMp: negative emotion, and OPEp: open mindedness. Following is the structural model:

The structural model indicates the predictor variable PsySoM (psychological sense of belonging) and the criterion variable CSTY (curiosity) as they are mediated by the five dimensions of personality traits as applicable in Figure 1. A detailed relationship values of the model termed as regression weights are shown in Table 1.

Table 1 shows the linear regressions among the five dimensions of personality traits and sense of belonging, the linear regressions among the dimensions of personality traits curiosity, and the linear regressions between curiosity and sense of belonging. The results show that no dimension of personality traits significantly predicted sense of belonging. However, there were significant linear predictions among some aspects of personality traits and curiosity and curiosity and sense of belonging. For example, curiosity predicted strongly and positively open mindedness ($b = .719$, $SE = .189$, $p \leq 0.001$). Again, curiosity strongly and positively predicted agreeableness ($b = .742$, $SE = .221$, $p \leq 0.001$), and curiosity positively predicted sense of belonging, but the prediction was weak ($b = .254$, $SE = .102$, $p \leq 0.001$). The results imply that students whose behaviors are dominated by open mindedness and agreeableness are likely to exhibit high levels of

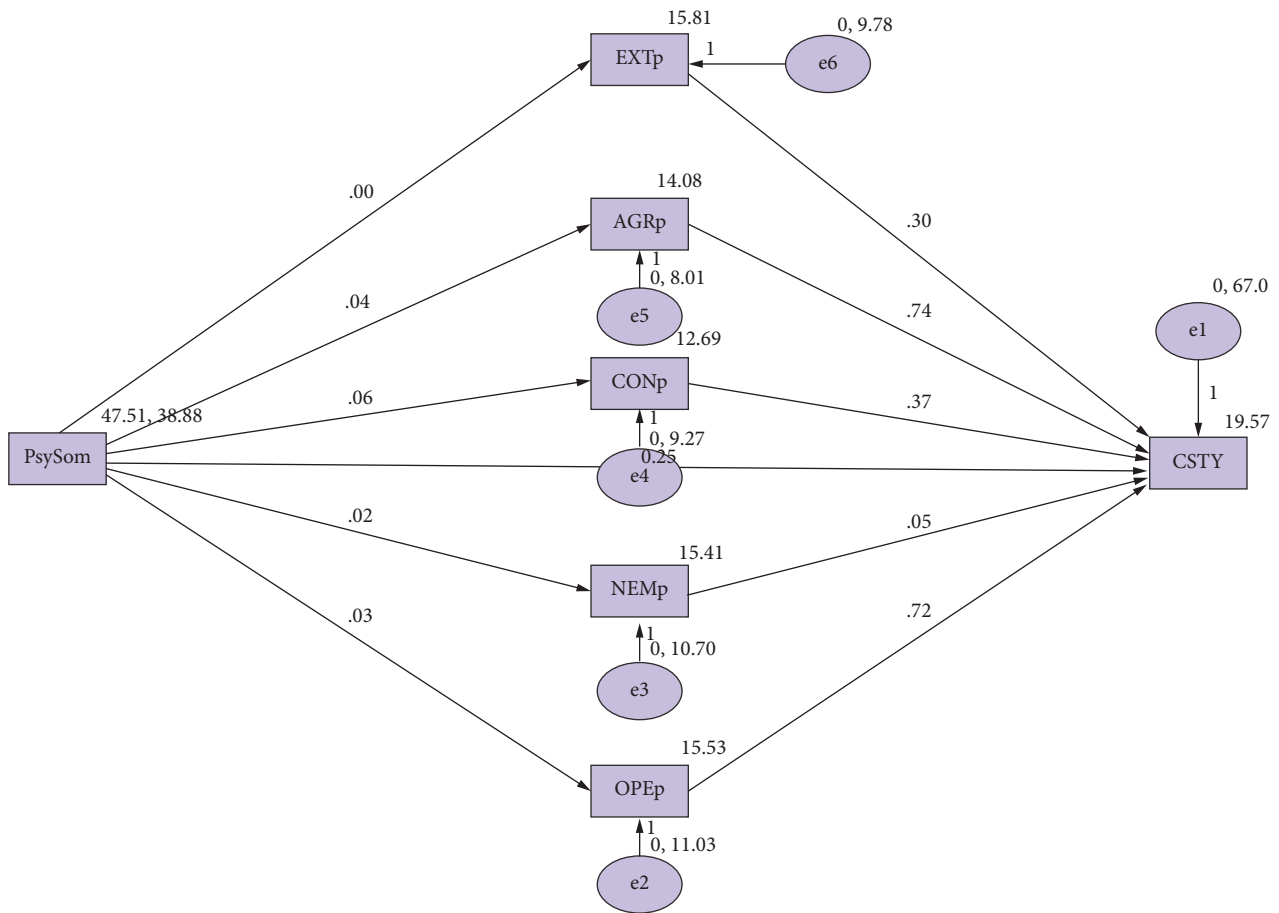


FIGURE 1: Structural model of dimensions of personality traits mediating between PsySom and CSTY.

TABLE 1: Regression weights.

Linear regressions			Estimate	SE	CR	<i>p</i>
Extraversion	←	Sense of belonging	-.002	.038	-.053	.957
Agreeableness	←	Sense of belonging	.044	.035	1.279	.201
Conscientiousness	←	Sense of belonging	.065	.037	1.731	.083
Negative emotions	←	Sense of belonging	.015	.040	.376	.707
Open mindedness	←	Sense of belonging	.032	.041	.789	.430
Curiosity	←	Sense of belonging	.254	.102	2.486	.013
Curiosity	←	Open mindedness	.719	.189	3.816	.001
Curiosity	←	Negative emotions	.051	.191	.266	.790
Curiosity	←	Conscientiousness	.368	.206	1.790	.073
Curiosity	←	Agreeableness	.742	.221	3.354	.001
Curiosity	←	Extraversion	.295	.200	1.474	.140

Source: Field data (2021).

curiosity in their academic endeavors. Again, students who see themselves to be part and parcel of the school community they found themselves could show appreciable levels of curiosity in their learning and academic engagement.

With the mediated ability of personality traits on the relationship between sense of belonging and curiosity, detailed partial mediating values termed direct effect (DE) and indirect effect (IE) are shown in Table 2.

Table 2 shows mediating results of personality traits on sense of belonging and curiosity. The results indicate that, apart from extraversion, the rest of the mediator variables significantly and partially mediated the relationship between psychological sense of belonging and curiosity. For instance, using a 95% confidence interval, open mindedness (DE = .032, IE = .060, $p \leq 0.001$), negative emotions (DE = .015, IE = .029, $p \leq 0.001$), conscientiousness (DE = .065, IE = .131, $p \leq 0.001$),

TABLE 2: Direct effects (group number 1—default model).

Mediators	Direct effect	Indirect effect	<i>p</i> -Value
Open mindedness	.032	.060	.001
Negative emotions	.015	.029	.001
Conscientiousness	.065	.131	.001
Agreeableness	.044	.097	.001
Extraversion	−.002	−.004	.457

Source: Field data (2021).

and agreeableness (DE = .044, IE = .097, $p \leq 0.001$) mediated sense of belonging and curiosity. The results imply that the effect or contribution of sense of belonging in curiosity could be reduced or minimized in the presence of personality traits.

4. Discussion

The study investigated the mediating role of personality traits on the relationship between sense of belonging and academic curiosity among students. Studies have shown that sense of belonging and personality are significantly related to curiosity [66, 67]. The results of this study show that sense of belonging did not predict personality traits, but particular personality traits mediated sense of belonging and curiosity. According to the model obtained, open mindedness, conscientiousness, agreeableness, and negative emotions have a mediating role in the relationships between sense of belonging and academic curiosity. Therefore, the results of the study lead to the suggestion that sense of belonging predicts personality traits only when personality traits serve mediational purpose. In this regard, students with a high degree of sense of belonging tend to have a well-developed academic curiosity since they tend to be open minded, conscientious, agreeable, and emotionally stable. The findings imply that the relationship between sense of belonging and curiosity among students is enhanced by the presence of open mindedness, negative emotions, conscientiousness, and agreeableness aspects of personality traits. Regardless, it is possible there could be changes in the levels of sense of belonging among students in the midst of the pandemic, and this confirms the Guazzini et al. [68] study, which found that sense of community among students was moderately influenced in the midst of the COVID-19 pandemic. Consistent with previous studies, the finding confirms the study findings of Freeman et al. [14, 69]. In their studies, it was found that students who exhibit a high sense of belonging show appreciable levels of curiosity and motivation to succeed in school. Again, the study revealed that sense of belonging was not related to the personality traits of students. The finding implies that students can show sense of belonging to the school community, but such belonging has nothing to do with the personality attributes of the students. The finding also implies that academic discourses can be made about students' sense of belonging to their school community, but reference cannot be made regarding their unique personal characteristics and sense of membership to the school community. The finding of the current study supports

that of Moore [46], who found no significant relationship between sense of belonging and personality traits of students.

Furthermore, the study revealed that open mindedness and agreeableness related positively with curiosity. The findings imply that students who accept new ideas, opinions, and information that do not align with what they possess are likely to show curious potentials and eventually succeed in school. The findings also imply that students who are perceived to be kind, sympathetic, cooperative, warm, and considerate can become curious in many learning situations. The findings of the current study, in part, support and refute several studies' findings. For instance, Hunter et al. [25] found a positive relationship between curiosity and open mindedness, which corroborates with an aspect of the current study finding, while Fitri and Wielyanida [45] found a positive relationship between personality traits and curiosity. However, current study findings refuted the findings of Jeraj et al. [43], Hunter et al. [25], and Litman et al. [44] studies. These researchers found a relationship between curiosity and extraversion, a weak relationship between curiosity and neuroticism. Finally, the study revealed that open mindedness, negative emotions, conscientiousness, and agreeableness mediated the relationship between sense of belonging and curiosity among students. These findings are consistent with Balgiu [49], who found personality traits mediating the relationship between curiosity and subjective well-being, an aspect of sense of belonging [70].

Based on the background theory, there is ample evidence to suggest that personality traits play a significant role in determining an individual's sense of belonging and academic curiosity. Specifically, research suggests that individuals who possess certain personality traits, such as openness to experience, extraversion, and agreeableness, tend to have a stronger sense of belonging and a higher level of academic curiosity. In terms of data theory/analysis, studies have used various measures to assess personality traits, sense of belonging, and academic curiosity among students. These measures include self-report questionnaires, standardized tests, and observational methods. Data analysis techniques used in these studies have included regression analysis, factor analysis, and structural equation modeling. The key outcomes of studies investigating the relationship between personality traits, sense of belonging, and academic curiosity among students are consistent with the background theory. For example, research has found that students who score higher on measures of openness to experience tend to report a stronger sense of belonging and higher levels of academic curiosity. Similarly, studies have shown that students who score higher on measures of extraversion and agreeableness tend to have a stronger sense of belonging, although the relationship between these traits and academic curiosity is less clear. Overall, the evidence suggests that personality traits play an important role in mediating an individual's sense of belonging and academic curiosity.

5. Conclusion

Personality traits mediate the relationship between students' sense of belonging and their academic curiosity. The

revelation implies that as students have the feel of being members of their school communities, they may show some level of curious abilities that will push them in search for knowledge in the school environment. This is to say that, in discussing the relationship between sense of belonging and curiosity among students, it is important to consider students' personality traits as they play an integral part in their interaction. Again, the interaction between sense of belonging, personality traits, and curiosity appears in many studies, but it is considered that the current research is the first to demonstrate the mediating role of personality traits in association with two variables.

5.1. Recommendations and Implications for Theory and Practice.

The current study's findings may present practical implications for students' selection for particular schools and specific academic programs. Based on the findings, school authorities could know that if they select individuals with certain personality traits, high degrees of sense of belonging and curiosity also occur in their profiling. Again, the personality traits of students will help school authorities to create a personality-fit environment where students can crave curiously for academic successes and establish productive psychological sense of belonging. Teachers should allow students to work together on assignments. Working together in a group will foster a sense of belonging and encourage academic curiosity among students.

Personality traits play a significant role in mediating the relationship between sense of belonging and academic curiosity among students. This highlights the need for personality traits to be considered in future research on academic motivation and student success. The study contributes to the literature on sense of belonging and academic curiosity, providing evidence for the importance of both constructs in predicting academic outcomes. The findings suggest that sense of belonging and academic curiosity may be more strongly linked for students with certain personality traits, such as extraversion or openness to experience.

Educators and administrators should consider the role of personality traits in supporting student success. This may involve identifying and leveraging students' unique strengths and tendencies to promote academic curiosity and a sense of belonging. Programs and interventions that focus on building a sense of belonging and promoting academic curiosity should take into account individual differences in personality traits. For example, an intervention designed to foster a sense of belonging may be more effective for students high in agreeableness, while an intervention designed to enhance academic curiosity may be more effective for students high in openness to experience. The study underscores the importance of creating a positive classroom environment that fosters a sense of belonging and encourages academic curiosity. This can be achieved through strategies such as inclusive teaching practices, collaborative learning opportunities, and providing students with autonomy and choice in their learning.

5.2. Limitation and Future Directions. In as much as the study offers interesting findings, it is not free from limitations.

For example, participants may not be entirely truthful or accurate when reporting their feelings, thoughts, or behaviors. This may lead to an overestimation or underestimation of the results. The size and diversity of the sample may not be representative of the population as a whole, limiting the generalizability of the results. Personality traits, sense of belonging, and academic curiosity may be influenced by cultural factors that differ across regions and countries, which may limit the generalizability of the results. The methods used to measure personality traits, sense of belonging, and academic curiosity may not be entirely accurate or reliable, which may influence the validity of the results. Therefore, future studies could further explore the complex interplay between personality traits, sense of belonging, and academic curiosity in diverse populations and educational settings. Again, future research in this area should focus on identifying the specific mechanisms through which personality traits influence these outcomes and developing interventions to enhance students' sense of belonging and academic curiosity.

Data Availability

The data used in this research are available upon request from the corresponding author, subject to ethical and legal restrictions. The author declares that all data and materials used in this study are publicly available and referenced appropriately in the manuscript.

Conflicts of Interest

The author declares that there is no conflicts of interest.

Funding

This research was conducted without any external funding. All expenses associated with the study were covered by the researcher.

Acknowledgments

I acknowledge colleagues for proofreading and formatting. I really appreciate their gestures offered when you were called upon.

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