School Security and Academic Self-Concept Among Pupils in Primary Schools in Informal Settlements in Kibra Sub-County, Nairobi County, Kenya

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ABSTRACT

This study was designed to investigate the influence of school security on the academic self-concept of pupils in primary schools in informal settlements in Kibra Sub-County, Nairobi County, Kenya. The social cognitive theory guided this research. The study employed a survey research design. The target population comprised 138 head teachers, 203 teacher counsellors, and 9536 learners in Class VII, totaling 9877 respondents, from which a sample of 385 respondents was determined using Yamane’s formula. Questionnaires were used to collect data from learners in Class VII, as were interview guides for head teachers and teacher-counsellors. Piloting was conducted among 38 respondents from primary schools in informal settlements in Kibra sub-county to establish validity and reliability. The opinions of educational psychology professionals were used to confirm the study’s validity. The split-half method was used to calculate reliability, and the reliability coefficient (r = 0.728; p<0.05) at the 0.05 level of significance revealed a high degree of internal dependability. The tests were carried out at a 0.05 level of significance. Test of the null hypothesis indicated that there was a significant statistical relationship between school security and academic self at r=0.668, p=0.001<0.05. The study concluded that levels of pupils’ academic self-concept in primary schools in informal settlements can be enhanced through provision of adequate school security. The study recommended that the Ministry of Education should ensure that primary schools have security guards and fences and should comply with standards for child-friendly school environment. The main beneficiaries of this study will be learners in the primary schools in the informal settlements when the policy makers improve the school environment hence their academic self-concept will be enhanced.

Keywords: Academic Self-Concept, Informal Settlements, Primary Schools, Pupils, School Security

I. INTRODUCTION

According to Drake and Owen (2017), “safe learning environments” are those in which "structured learning" takes place in an atmosphere free from environmental, internal, and external dangers to the safety and welfare of both students and members of staff. More and more studies show that students perform better and retain more information when they are in an atmosphere that is both safe and healthy. Attendance, interest, and motivation are all shown to suffer when students feel unsafe at school. Sometimes, students in dangerous schools experience mental health issues like low self-esteem, distraction, and depression (Jayaweera, 2016).

Kabwos et al. (2020) observed that the connection between school security and students’ academic self-concept across the world is increasingly acknowledged as a vital element affecting educational outcomes. School security entails the physical safety of the school setting including the psychological and emotional safety of the learners. In advanced nations, adequate security measures and supportive environments have been associated with enhanced self-esteem of learners and improved academic success. According to Kabwos et al. (2020) these outcomes depict the value of a secure learning environment as a basic requirement for advancing positive academic self-concept, which is necessary for students’ motivation and success.

Threats to security may be either man-made (from inside the organization) or natural (from beyond; Mochoge, 2021). All of these dangers in a growing culture pose a risk to students’ ability to learn. School-Related Gender-Based Violence (SRGBV), physical punishment, bullying, verbal harassment, and gang activity/recruitment inside a school are all examples of internal dangers that schools may face (United Nations Educational, Scientific and Cultural Organization (UNESCO, 2020). Internal risks to school safety have been linked to lower academic achievement, and this body of data is expanding. According to the 2006 United Nations (UN) World Report on assault Against Children (Turbett & O’Toole, 2013), students often cite verbal abuse, bullying, and sexual assault as causes of apathy, absence, and dropping out of school.
The 2014 research conducted by Patterson and Fleet employed data from the Trends in International Mathematics and Science research (TIMSS) and the Progress in International Reading Literacy Study (PIRLS) to investigate the potential correlation between bullying and academic achievement in Botswana, Ghana, and South Africa. The findings suggest that the occurrence of bullying and violence within educational institutions has significant implications on the academic achievement of students in countries characterized by low per capita income. It is important to consider that the effects of classroom violence on children may differ based on their respective sexes and gender identities and they can impact on academic self-concept of learners.

In the Kenyan context, the same issues are evident, more so in informal settlements like Kibra in Nairobi County. Schools located in these areas often struggle with constraints such as overcrowded classrooms, inadequate learning materials, and insufficient security measures (Njoki, 2018). These elements undermine learners' sense of safety and their academic self-concept. Correlation between these environmental variables and students' perceptions of their academic abilities is vital, as a positive academic self-concept is associated with improved participation, motivation, and attainment. In this regard, gaining insight as well as confronting security challenges encountered by schools in Kibra is paramount for boosting educational outcomes.

1.1 Statement of the Problem
The prevalence of bullying behavior among students is anticipated to exacerbate their standing within the school community. The rise of aggressive and bullying conduct can be attributed, in part, to the incapacity of learners to effectively regulate their own emotions (Opere, 2019). According to Opere (2019), there exists a correlation between students' level of class participation and their perception of the overall atmosphere inside their educational institution.

To ensure that all students are able to learn in an atmosphere that is free from harassment, bullying, or other forms of intimidation, most schools in Kenya have standards or a code of conduct for teachers, students and parents and guardians. Everyone associated with the school should know the rules that are in place. When expectations are made clear, Mwangi et al. (2016) argue, people who aren't adhering to this standard may be confronted.

According to "Influence of Physical Environment on Crime in Informal Settlements of Kibra in Nairobi County, Kenya," authored by Shikuku, et.al (2018), crime in urban slums has far-reaching effects, including the loss of human life and the destruction of public and private property. Protecting oneself from the persistent dangers of crime and violence is a top priority for city dwellers. Schools provide a privileged location for the creation of preventative strategies and health promotion, as noted by Rono et al. (2019), who note that drug use is a big social problem. Korir (2017) found in his research on the Nakuru West District that schools must retain detailed records of any problems or occurrences that involve school personnel or volunteers. According to Korir (2017), it's only when the whole picture is taken into account that the importance of apparently inconsequential details becomes clear.

UNESCO (2020) reported that schools in Kibra Sub-County did a good job of including lessons on sexual abuse and its definition into their curricula, as well as teaching parents how to recognize and respond to signs of sexual misconduct in their children. In line with these assertions, this present study delves into how school security influences academic self-concept among pupil in primary schools in informal settlements in Kibra Sub-County, Nairobi County, Kenya.

1.2 Specific Objective
(i) To establish the extent to which school security influences academic self-concept among pupils in primary schools in informal settlements in Kibra Sub-County, Nairobi County, Kenya.

1.3 Research Hypothesis
H01: There is no statistically significant influence of provision of school security on development of academic self-concept among pupils in primary schools in informal settlements in Kibra Sub-County, Nairobi County, Kenya.

II. LITERATURE REVIEW

2.1 Theoretical Review
2.1.1 Social Cognitive Theory
This theory was advanced by Albert Bandura in the 1980s. It offers an extensive model for gaining insight on how individuals obtain and preserve behaviors, taking into consideration the interplay between cognitive, behavioral, and environmental influences (Bandura, 1986). The key concept of SCT is self-efficacy, which describes how an individual's belief in their ability to put actions essential to attain certain performance realizations. This belief functions primarily in forming one's academic self-concept, which explains the perception of academic abilities of a
pupil. Regarding primary schools settings in informal settlements like Kibra, where learners in most cases encounter a myriad of environmental and social constraints, SCT theory assists in comprehending how these elements can impact learner's academic self-concept and overall educational outcomes (Pajares, 1996).

This theory is relevant to this present study as it stresses on the reciprocal determinism between personal elements, influences of the environment, as well as behavior. In Kibra informal settlement, the security factor and availability of resources considerably affects learners' learning settings. In regards to Bandura's theory, perceptions of learners on matters security and support within their school affects their academic self-concept, influencing their motivation, participation, and in the end their academic performance (Zimmerman, 2000). As such, SCT theory avails a lens through which educators and policymakers can evaluate how boosting security measures and offering supportive educational environments could promote positive academic self-concepts among learners in these demanding contexts.

2.2 Empirical Review

Several investigations have looked at the potential correlation between external dangers to school safety and student achievement. As Ladan and Yabo (2023) points out, school violence has a detrimental effect on student performance and school attendance. Dropping enrolment, increased student distraction, and stagnating achievement are all clear signs of these unfavorable consequences in the classroom. Mupa and Chinooneka (2015) note how a precipitous decline in student enrolment occurred in India's Jharkhand State as a result of persistent assaults on schools and the takeover of classrooms.

Environmental risks, such as natural catastrophes and public health epidemics, might potentially exert detrimental effects on educational institutions and the accessibility of teaching personnel (UNESCO, 2020). The occurrence of school damage, destruction, or utilization as evacuation sites results in the loss of significant instructional time. According to UNESCO (2020), a significant number of children and young individuals, over two million in Nepal, had a prolonged disruption in their education following the 2015 earthquakes. This was mostly due to the temporary shutdown of educational institutions, particularly in the districts most severely affected by the natural disasters. Upon their reintegration into the school environment, children exhibited a notable absence of enthusiasm and a considerable level of anxiety specifically related to their upcoming examinations.

UNESCO, the United Nations' Educational, Scientific, and Cultural Organization, developed a School Safety Manual for African educators to use in ensuring the security of schools across the continent. This guide is intended for use by educators in the Horn of Africa and neighbouring countries as part of a broader effort to foster a culture of peace in the region. The goal of the program was to teach teachers about school safety and how to make their schools safer for students (UNESCO, 2020).

In keeping with these assertions, Jayaweera (2016) researched the hopes and challenges of students in Sri Lanka and discovered that they include the following participating in group pursuits with one's contemporaries; completing elementary education, not being married as a child, learning about and having access to resources for healthy puberty and safe pregnancy prevention and finishing secondary school.

According to Drake and Owen (2017), most elementary school children spend the majority of their waking hours at school, and as a result, parents place a great deal of faith in the school to guide their children toward reaching their full potential. Most teachers spend a great deal of time and energy making sure their pupils succeed. Schools in South Africa with such a culture, as described by Turbett and O'Toole (2013), value discussion and pay close attention to the concerns of all parties involved in the educational process.

School safety is crucial for effective teaching and learning in public secondary schools in Nairobi and Nyeri Counties, according to research by Njoki (2018). All of a student's academic, personal, and professional potential can flourish in this safe setting. However, when pupils experience anxiety at school, their performance declines. In addition, the findings showed that the climate of safety in schools affected academic performance. Opere (2019) conducted research on the state of public secondary schools in Nairobi, Kenya, and found that these institutions have been significantly impacted by various disruptions. The study reveals that school violence has hindered the establishment of peaceful cooperation within these educational settings.

According to Njagi (2021), in their research titled “The Impact of Parenting Strategies on School-Based Violence among Adolescents in Embu County, Kenya,” it was suggested that adolescent violence is a widespread concern on a global scale. Mochoge's (2021) study on bullying in schools suggested that it is still a serious problem that may affect any child. The results are really harsh. Another study conducted by Ngelu and Wambua (2020) revealed a substantial positive association between four distinct independent variables and the incidence of bullying in secondary schools in Kenya. Reasonable accuracy can be achieved in predicting patterns of bullying in Kenyan secondary schools by utilizing independent criteria.
III. METHODOLOGY

3.1. Research Design
The study employed a survey research design as it allows for the investigation of the current status of the phenomena in question (Creswell, 2014). Given the research focus on role of curriculum support materials on the academic self-concept of learners, data collection involved both quantitative and qualitative information, where questionnaires were used for quantitative data, and interviews for qualitative insights. This study employed concurrent triangulation, combining quantitative and qualitative data collection and analysis methods to provide a comprehensive view of curriculum support materials role in shaping academic self-concept.

3.2 Location of Study
The study was conducted in Kibra Sub-County, an informal settlement located five kilometres from Nairobi's Central Business District, with a population of 185,777 people. This research focused on primary schools in this region, which rely heavily on non-formal schooling. Given the recent effort to register such schools with the Ministry of Education and the documented challenges in education, including student disengagement and low self-concept, this area was chosen as the study location.

3.3 Target Population
In Kibra Sub-County, there are 138 non-formal primary schools that meet the Ministry of Education's registration guidelines, providing an education based on the regular curriculum. The target population for this study consisted of 138 headteachers, 203 teacher-counsellors, and 9,536 Class VII learners, totalling 9,877 potential respondents.

3.4 Sampling Techniques and Sample Size
The study employed stratified sampling, dividing Kibra Sub-County into seven zones. To ensure representative findings and evaluate the influence of curriculum support materials, purposive sampling was used to select 35 principals and 35 teacher-counsellors, while 315 students in Grade VII were randomly chosen from the sampling schools. The sample size was determined using Yamane's Formula, resulting in a desired sample size of 385 respondents, focusing on the role of teacher-learner interactions.

3.5 Data Collection Instruments
Data collection instruments included questionnaires for Class VII students with Likert Scale questions and interview guides for headteachers and teacher-counsellors. The questionnaires assessed aspects related to curriculum support materials and their influence on academic self-concept.

3.6 Piloting of Research Instruments
The research instruments were pilot-tested with 38 respondents from informal primary schools in Kibra Sub-County, ensuring their relevance and clarity. This process was essential for assessing instrument validity and trustworthiness.

3.7 Data Collection Procedures
The researcher, with the necessary permits and authorization, conducted data collection through visits to the schools. Research assistants were trained for questionnaire administration. Interviews were conducted with head teachers, teacher-counsellors, and students in Class VII.

3.8 Data Analysis and Presentation
Data analysis involved coding, frequency counts, and thematic analysis to examine the influence of curriculum support materials on academic self-concept. Descriptive and inferential statistics were conducted using statistical software. The study's quantitative results were presented through tables, charts, and narrative formats, focusing on curriculum support materials and their role in shaping academic self-concept.

IV. FINDINGS & DISCUSSIONS

4.1 Provision of School Security and Pupils’ Academic Self-concept
The purpose of this research was to analyze how the presence or absence of security measures at primary schools in informal settlements affected students' perceptions of their own abilities in the classroom. The study's authors compiled descriptive statistics and reported their findings.
According to the findings presented in Figure 1, a mere 43.2% of seventh-grade students in schools situated in informal areas reported a positive perception of their sense of security. However, a sizeable percentage of respondents (52.9%) expressed pessimism, indicating a lack of perceived security within the classroom. Their message covered two primary areas of safety concern. The initial item of concern belonged to the question of corporal punishment, which was examined in regard to a specific set of children. Seventh-graders, in particular, were found to have a strong belief that physical punishment was not used in primary schools in informal settlements by a large percentage (40.8%). Furthermore, a sizable percentage of children (45.3% to be exact) claimed that covert bullying was prevalent inside the school setting, and that it often went unnoticed by adults. The children also noticed that there were no safety precautions taken along the path that led from their houses to the school. This path was used by adults who were just hanging out. The children are more likely to feel unsafe because of this situation.

However, school administrators and guidance counselors stressed their efforts to provide a secure learning environment. H11, the principal, confirmed all of the information that was given to him:

In my school, learners’ safety is paramount and all measures have put in place to ensure that pupils feel safe to undertake their academic activities. Use of corporal punishment is not condoned and cases of bullying have gone down.

Teacher-counsellors also stated that learners are well taken care of while at school. Teacher-counsellor, TC8, stated:

In my school, instances of caning learners and bullying have gone down in my school. Instead, career guidance and counselling have been adopted to ensure that pupils pursue their education with minimal challenges.

Students' intellectual self-concepts are influenced by their experiences at school; therefore it's important to look at how factors like student safety and a supportive learning environment play a role in that. In order to further their education, students are more likely to enroll in schools that provide a safe environment with little opportunities for harm.

When asked how they felt about the idea that students in schools located in informal settlements are actively encouraged to foster a sense of unity and refrain from engaging in acts of bullying towards their peers, 56% of seventh graders strongly agreed. The vast majority of principals and guidance counselors we polled agreed with this statement. H12, the school's principal, vouched for the following:

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In my school, we encourage learners to be each other’s keeper and ensure that their peers are safe and taken care of. We encourage them to be empathetic to each other’s challenges and help where necessary. This has motivated pupils who may lose hope to feel a sense of belonging.

The teacher-counsellors concurred with these perspectives, emphasizing the essential role of a sense of belonging in fostering the social and cognitive development of students within any educational environment. The educator-counselor, hereafter referred to as TC9, conveyed:

In my school, we ensure that pupils work as a family and share their challenges at all times. This has enabled us to solve many challenges which might have otherwise hindered their development of academic self-concept.
This confirms the arguments made by Volpe (2011) that schools should foster and promote alertness and a sense of collective accountability towards students' safety in order to increase their academic results. In essence, schools create a welcoming environment that encourages students to feel like they belong by encouraging them to live together as a family unit within the institution and by encouraging them to work together to solve routine problems.

The study also uncovered a significant concern about the security of the school's athletic fields. In this study, 55.4% of students agreed that the school's fields are not suitable for students because of their stony surface and their placement beyond the school compound. The scenario surrounding the toilets was similar, as the learners voiced displeasure with their quantity, cleanliness, and overall discomfort experienced when using them.

Interviews with principals and guidance counselors confirmed that children living in informal settlements are less likely to enroll in elementary school because they are afraid for their safety. The principals, however, did not agree with the students on the matter of playground and restroom security. H13, the school's principal, said:

*In my primary school, we have clean and safe toilets for all learners. They may not be enough but are well-maintained to ensure that learners are safe from any diseases. With regard to safety of playgrounds, we have a space where learners can play and undertake outdoor activities and is safe for learners.*

According to these results, creating a safe and welcoming classroom setting is crucial to helping students feel confident in their abilities as students. Students' enthusiasm and participation in school-related activities are increased when primary schools in informal settlements have access to safe playgrounds and clean bathrooms.

4.2 Inferential Findings on Influence of Provision of School Security on Academic Self-concept of Pupils in Primary Schools in Informal Settlements in Kibra Sub-County, Nairobi County.

To test the null hypothesis, $H_0$: *There is no statistically significant influence of provision of school security on development of academic self-concept among pupils in primary schools in informal settlements*, data were collected from the 30 sampled primary schools in informal settlements on the number of security guards per school and the number of learners sampled in class VII who set academic goals. The results are shown in Figure 2:

*Figure 2*

*Number of Security Guards Per Primary School in Informal Settlements and Number of Learners Who Set Academic Goals*

Figure 2 shows that a sizeable minority of students (38.60%) believes that the presence of three (3) security officers increases the number of students who set academic goals. Next, 30.70 percent of people polled said that a single security guard was all that was needed to maintain the same level of safety.

This research shows that the academic self-concept of primary school pupils living in informal settlements is significantly influenced by the provision of adequate security. In essence, primary schools that possess suitable security measures have a better propensity to attract pupils who are motivated to attend school and engage in learning through the formation of academic objectives. Table 6 displays the results of a Pearson's Product Moment Correlation Analysis of the data.
Table 1
Pearson’s Product Moment Correlation Analysis Showing Relationship between Provision of Security and Pupils’ Academic Self-concept

<table>
<thead>
<tr>
<th>Number of Security Guards</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.668**</td>
<td>0.000</td>
<td>30</td>
</tr>
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</table>

**. Correlation is significant at the 0.001 level (2-tailed).

The results of a correlation analysis between the number of security personnel and students' perceptions of their own academic ability are shown in Table 6. The test's p-value of 0.000 was significantly less than the p-value of 0.05, indicating that the finding was statistically significant. The significance of this connection was further confirmed by the correlation coefficient (r = 0.668, p = 0.000). Therefore, we cannot consider H03 as a valid starting point for our investigation. This study's results provide empirical backing for the hypothesis that elementary school students' perceptions of their own academic talents are greatly influenced by the level of security they feel at school.

As a result of what has been discussed, we can draw the conclusion that stakeholders and school leadership must place a premium on the child's holistic development in order to successfully handle the barriers connected with the implementation of child-friendly schools. To do this, it's important to think about how different aspects of the classroom setting contribute to our understanding of the difficulties children experience.

According to the findings of this study, educators must be cognizant of the fact that children come from diverse backgrounds and have various needs. This is in line with the findings of a study that set out to investigate the safety of school environments in an effort to boost students' feelings of safety and, by extension, their motivation to learn (Ngwacho, 2020). In light of the data at hand, it is very clear that schools must take every precaution to keep their students safe. This means that learners would be able to focus on their studies and achieve their academic goals with the help of this measure's implementation, which would safeguard their personal safety.

4.3 Summary
The findings of the study indicate that the implementation of security measures in primary schools located in informal settlements has a noteworthy impact on the development of academic self-concept among students. Nevertheless, a significant majority of the participants expressed concerns over their personal safety when attending elementary schools located in informal settlements. This means that learners are more inclined to enroll in educational institutions that provide a secure environment conducive to their academic pursuits, characterized by a reduced prevalence of incidences of insecurity.

According to the findings of the study, participants saw that primary schools located in informal settlements promote a sense of communal living among their students. This suggests that when students reside together as a family inside the school setting and engage in the sharing of their daily challenges, it fosters a supportive atmosphere in which all learners experience a sense of belonging and are consequently empowered to actively pursue their academic endeavors.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions
Most students attending primary schools in slum areas clearly do not feel comfortable there. In spite of this, several respondents emphasized the importance of teacher-learner contact activities like supervision and counseling, which have made learning exciting and helped them better understand their students. When assigning homework, teachers often divide their classes into groups for good and low performers. This has enabled teachers to apply individualize teaching practices to help slow learners catch up with the rest. Primary school students in informal settlements will do better in class if policymakers invest in making their schools safer and more comfortable learning environments.

5.2 Recommendations
The report recommends that school administration and the Ministry of Education make it mandatory for all primary schools in informal settlements to employ a security guard and construct perimeter walls to protect students' physical and mental well-being. Parents and guardians should also ensure that they escort their children to school to guarantee their safety on their way to school.
REFERENCES


