

The relationship between resilience and academic performance of Ghanaian public Junior High School students

by

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A thesis submitted in fulfilment of the requirements for the degree

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DECLARATION

I declare that the thesis, which I hereby submit for the degree of PhD Learning Support, Guidance and Counselling at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.



Esther Twum-Barimah

9th December, 2024

DEDICATION

I dedicate this thesis to the cherished memory of my father, Rev. John Martin Abankwah. Your unwavering commitment to the work of God and your godly legacy have been a constant source of inspiration. Thank you for cheering me on throughout this journey. This thesis is my humble way of expressing my deepest appreciation.

“Medewo bɛtwa po kɔkɔ no”. This phrase translated from the local Twi dialect to English means - “I will help you cross the red sea”.

Indeed, the God you lead me to trust, whose words stand sure has taken me through this journey.

To God Be the Glory.

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ETHICS STATEMENT

The author, whose name appears on the title page of this thesis, has obtained, for the research described in this work, the applicable research ethics approval. The author declares that she has observed the ethical standards required in the University of Pretoria's Code of ethics for researchers and the policy guidelines for responsible research.

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ABSTRACT

This research explores the relationship between resilience and academic performance among public Junior High School (JHS) students in Ghana. The study identifies the primary determinants of resilience and academic performance within this demographic. Ghanaian public junior high students from low socioeconomic backgrounds face significant challenges at home, school, and in their environment. It is essential to understand how these students manage to achieve academic success despite these obstacles. This research addresses a gap in the literature, as the relationship between resilience and academic performance in this context has not been extensively studied.

The mixed-method approach was employed, using a sequential exploratory case study design and a pragmatic philosophical stance. The study adopted a cross-sectional method involving 498 Form 2 and Form 3 students from varied cultural backgrounds and eight teachers with teaching experience ranging from 17 to 30 years from three selected JHS schools in the Ayawaso West District.

The quantitative phase, which preceded the qualitative phase, involved collecting data through a survey using the Resilience Questionnaire for Middle-Adolescents in Township Schools (R-MATS) scale and academic performance scores from the average of the four core (mandatory) subjects: English, Mathematics, Integrated Science, and Social Studies. Qualitative data was gathered through focus group discussions with students and face-to-face interviews with teachers. The focus groups (eight to ten students) were categorised based on objectively determined resilience and academic performance levels. Quantitative data was analysed using SPSS version 25, while thematic analysis was employed for qualitative data. The qualitative data provided rich insights from the three focus groups and teacher interviews. The study was guided by Resilience Theory and Self-Determination Theory.

The key findings indicate that stakeholders must support students by fostering resilience-enabling characteristics. It underscores the importance of parents, teachers, and the government in supporting students to develop resilience, which can significantly enhance

their academic performance and contribute to the growth and development of the economy.

These findings can inform policymakers, headteachers, and parents enhancing the development of strategies and policies to support and improve academic achievement, thereby addressing the educational challenges faced by students from low socioeconomic backgrounds.

KEYWORDS: Resilience, Academic performance, adolescent, Junior high school, educational challenges.

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TO WHOM IT MAY CONCERN

I have edited the thesis *The relationship between resilience and academic performance of Ghanaian Public Junior High School students* and confirm that it is ready for publication or public viewing regarding language and style.

Please note that no view is expressed regarding the document's subject-specific technical contents or changes made after the date of this letter.

Kind regards



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LIST OF ABBREVIATIONS

AWMA	Ayawaso West Municipal Assembly
BECE	Basic Education Certificate Examination
GES	Ghana Education Service
GWC	Ghana Water Company
I-E-O	Inputs-Environments-Outcomes
JHS	Junior High School
MOE	Ministry of Education
NEA	National Education Assessment
OCEAN	Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism
SDT	Self-determination Theory
SHS	Senior High School
UNICEF	United Nations Children's Fund
UNESCO	United Nations Educational, Scientific, and Cultural Organisation

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CHAPTER ONE: INTRODUCTION OF THE STUDY

1.1 Background of the Study

Formal education in Ghana began with the foray of European traders and missionaries in the 1600s and 1800s, respectively. During the post-colonial era, Ghana made concerted efforts to strengthen its educational systems by enhancing quality and accessibility and expanding the reach of the academic system by establishing thousands of schools (Graham, 1971). However, the rapid growth the sector experienced post-independence was short-lived. Political turmoil, economic crises, elitism, and poor regulatory and management oversight led to significant performance gaps in the country's education system (Abukari, 2010; Ansong et al., 2018).

Nevertheless, education in Ghana has come a long way. Although its origins were humble, the country has managed to achieve feats in making education accessible to its citizens and has undertaken several initiatives to improve the quality and infrastructure of schools and universities in both rural and urban areas (Morley et al., 2009). However, there is still a lot to be done to make quality education accessible to all Ghanaians.

This was expressed at the Jomtien, Thailand, Conference in 1990 and buttressed at the World Education Forum in Dakar, Senegal, in 2000. The Jomtien Conference of 1990 set the stage for a universal pledge to enhance learning for everyone by setting specific targets that will ensure learning worldwide.

There was a surge in global anxiety about low academic achievement and discrepancies in emerging countries at the start of the 1990s (Dunne et al., 2005). These worries reflected low academic attainment and girls' underperformance in comparison to boys in developing nations, and they investigated the role of the informal and school environments in maintaining the gender achieving gap.

In Ghana, the primary educational challenge has largely been attributed to quality. In many schools, academic performance is so low that pupils do not have basic reading and mathematics skills after multiple years of formal education (White, 2004). The failure of students to acquire the requisite level of competency in reading and mathematics at the basic level is of grave concern since these competencies form the basis for future

academic advancement (Akyeampong et al., 2013). Furthermore, the Ghanaian Chronicle newspaper highlighting details of the 2022 Grade 4 national standardised test results revealed that the performance of 59% and 58% of students were below the minimum point in Mathematics and English, respectively. Today, substantial barriers such as a teacher shortage, a reluctance to work in rural areas, poverty, malnutrition, poor performance, child labour, school context (Aheto-Tsegah, 2011; Yeboah-Obeng, 2016), economic burden and impact of COVID-19 pandemic (Belfield et al., 2021) keep youngsters out of school and limit their capacity to acquire knowledge. For example, Opoku-Asare and Siaw (2015) found a strong link between school structural amenities and academic performance in developing countries. Several social and ecological variables, such as poor-quality schools, apathetic teaching staff, and a widespread lack of educational progression opportunities, are risk variables that adversely affect academic attainment.

A critical look at Ghana reveals that the confluence of woefully inadequate school infrastructure, the pervasiveness of poverty, poor education quality, insufficient school supplies, and underequipped health facilities has placed children and adolescents in the country at risk of obtaining poor educational results (Abukari, 2010; Ansong et al., 2018). These issues are quite prevalent within Ghana's public education sector. Its patrons, particularly those at the preschool, primary and junior high level, come from underprivileged and poor backgrounds and do not have the financial resources to enrol in a private education institution (Oduro, 2008).

This consequently has a profoundly adverse effect on the academic outcomes of certain students. Evidently, in 2016, the results gleaned from the National Education Assessment (NEA) conducted by the Ministry of Education asserted that less than 50% of male students from Primary 4 through to Primary 6 attained the minimum proficiency and competency in mathematics and English (Ministry of Education, 2016). The same statistic applied to female students except for Primary 4 (52.0%). It further mentioned that minimum competency is realised when at least 35% of the NEA (National Education Assessment) test items are answered correctly. In addition, minimum proficiency is obtained when at least 55% of the NEA test items are answered correctly. Additionally,

global benchmarks for proficiency are set at a higher threshold. Hence, it is therefore not surprising that a significant percentage of students fail their Basic Education Certificate Examination (BECE) – the first major external examination written at the end of the third year in Junior High School – particularly in the subjects above, upon completion of their Junior High School Education. In Ghana, children between the ages of 6 and 11 years typically attend primary school. Afterwards, they spend three years in Junior High School, which culminates with the BECE.

In a study conducted by the Ministry of Education (2021), the BECE results from 2018 to 2020 in three courses, Mathematics, English and Science, were used to evaluate the performance of 10,000 low-performing public basic schools in Ghana. The results showed that 92.8% of the sampled schools had unsatisfactory results. Less than 60% of students had Grades 1 to 6, out of which less than 25% had Grades 1 to 3 in the last three years (Ministry of Education, 2021).

Table 1.1: Grades with Corresponding Scores

Score (%)	Grade	Description
80 -100	1	Excellent
70 – 79	2	Very Good
60 – 69	3	Good
50 – 59	4	Credit
45 – 49	5	Credit
40 – 44	6	Credit
35 – 39	7	Pass
25 – 34	8	Pass
0 - 24	9	Fail

Source: Geshub.org (2024)

The grades awarded for BECE commence from Grade 1 (highest) to Grade 9 (lowest). Grades 1 to 3 denote outstanding performance and in-depth comprehension of the subject. Grades 4 to 6 signify a good grip on the subject matter. Grades 7 to 9 reveal an emerging understanding of the subject elements. This is an issue of concern for all stakeholders involved. Academic performance is often used as a barometer of

educational effectiveness and quality; thus, the poor results may indicate that the investments made in public junior high school education are not yielding the desired outcomes.

Marchetta and Dilly (2019) affirmed that private basic schools offered superior learning experiences to public basic schools. Private schools were able to monitor teachers, generate new strategies, meet the needs of parents and could be easily accessed based on an individual's income level. Apparently, this was not in the interest of the masses because the Government did not have the means to support public schools. This eventually led to the reduction of educational standards in public schools over the years and has had a negative effect on academic performance.

1.2 Introduction

The relationship between resilience and academic performance among public junior high school students requires much attention in research, especially in Ghana. This is because there is a dearth of literature on this important area of research. Resilience and academic performance are important constructs related to student success in schools. Although Junior High School [JHS] students in Ghanaian public schools make up an important group, there has not been any focus on studies on their academic performance and resilience. Ansong et al. (2018) recommended the importance of resilience and academic performance among youngsters, such as Junior High School students, since it is a key determinant of academic progression and success. The multiplicity of challenges within Ghana's public education, such as poor student performance, deteriorating education infrastructure, and distance from the student's place of residence to school, has actively precluded students from achieving academic success and progressing to the subsequent stages of their educational journey (Ansong et al., 2018). These limitations are particularly prevalent at the Junior High School level (Kasimu & Imoro, 2017). Researchers have found resilience to serve as a mechanism to help students overcome the inherent barriers present in teaching and learning (Thurston et al., 2021).

Researchers on resilience in Ghana have focused on varied areas across several disciplines. These include nursing schools (Sossah & Asiedu, 2015), Ghanaian youth in violent communities (Abdullah et al., 2021), transnational mobility trajectories in the youth

(Van Geel & Mazzucato, 2021), Young Care leavers (Frimpong-Manso, 2020), homeless adolescents/children (Oppong Asante, 2019), university students (Abukari, 2018), teenage mothers (Ibrahim, 2018), climate change/flood victims (Alhassan, 2020; Amoako, 2018), persons with disability (Opoku et al., 2017), and urban resilience (Cobbinah, 2021).

The few studies in Ghana that explored resilience and academic-related constructs focused on college students (Abaidoo et al., 2021; Abukari, 2018) but did not elucidate the relationship between the two constructs. Currently, no study has comprehensively explored the relationship between resilience and academic performance at the Junior High School level in Ghana, especially in public schools. This gap in literature poses a massive concern for key stakeholders within the education system, like the Ghana Education Service and the Ministry of Education. Assessing the role resilience can play in helping students circumvent their academic hindrances will give insight into policy reforms that will ultimately enhance the public education landscape of the country. This spurred the researcher's interest in investigating the relationship between resilience and academic performance of public JHS students in Ghana.

Education is of vital importance to every modern society. It allows individuals to improve their social status and economic worth, and it also allows nations to enhance their innovation and competitiveness in the global landscape (Barrichello et al., 2020). However, there exist several internal and external factors that can induce a myriad of challenges and barriers, which limit the ability of a student to acquire the requisite skills needed to thrive within their schools and progress to the next stage of their academic journey (Anderman et al., 2012; Lee & Spratley, 2010). Nevertheless, amid all these limitations, certain persons can achieve academic success and utilise the problems they encounter as a learning opportunity for personal growth and development (Abukari, 2018; Ainsworth & Oldfield, 2019; Coman et al., 2020; Zinn et al., 2020). This is the hallmark of resilience; it is a multifaceted construct with several dimensions that explore an individual's ability to overcome adversity (Pangallo et al., 2015).

Thus, resilience can be described as a positive psychological process that emphasises human characteristics which improve mental health and function, rather than flaws and

dysfunction, when confronted with a challenge, risk, or problem (Infurna, 2020; Kotzé & Kleynhans, 2013; Ungar & Liebenberg, 2011). This is primarily achieved by employing protective mechanisms that prevent the negative effects of the difficulties associated with vulnerability (Tian et al., 2018; Zinn et al., 2020). Such mechanisms can either be intrinsically or extrinsically related to an individual. Several studies have found that the impact of resilience is twofold; it does not only allow an individual to maintain a positive mental state in the face of hardship but also uses these challenging experiences as an opportunity to acquire essential life skills through proactive learning. It is worth noting that resilience does not simply imply adapting to challenges unharmed but rather struggling appropriately or successfully enduring and learning from setbacks and difficult situations and trying to incorporate these experiences into the very fabric of one's life (Kotzé & Kleynhans, 2013; Nadrowska et al., 2022;).

Ghana has undergone several educational reforms with numerous interventions by the Government to meet the needs of citizens. Financial resourcefulness remains a substantial predictor of students completing JHS form three (Grade 9). Students from households within the highest 20% affluent group have At least six times the opportunity of reaching JHS Form 3 compared to other children from the lowest 40% bracket. Thus, most children from low socioeconomic backgrounds have a slim chance of completing JHS (Chikoko & Mthembu, 2020; Lewin & Akyeampong, 2009). Takyi et al. (2021) reiterated that the greater portion of Ghanaian children from poor homes (low socioeconomic background) enrolled in public basic schools battle with the problem of educational excellence needed to pursue their academics further than the JHS level resulting in poor performance as indicated by the National Educational Assessment and the Basic Education Certificate Examination. These students from low socio-economic backgrounds are overwhelmed with several challenges as aforementioned. Students need resilience to subdue these challenges to progress academically.

Addressing this issue of poor performance is of critical importance to the government of Ghana, and the country has implemented several initiatives, such as the revision of the basic school (Primary to JHS) and SHS syllabus, to assuage the situation (Marchetta & Dilly, 2019). However, these have proved ineffective as thousands of students within the

country continue to struggle almost daily to gain some semblance of quality education (Mohammed, 2020). Ascertaining the determinants of the resilience of students who can excel in their academics despite the adversities and challenges in the present environment will equip policymakers with the empirical evidence required to make a more concerted approach to remedying the problem. However, this line of enquiry has remained largely under-explored, even less so in Africa's context, and literature on the subject remains scarce.

For far too long, the extant literature on JHS education within the Ghanaian context has focused largely on themes revolving around academic challenges (Kwao, 2017; Kyeremeh et al., 2021; Quansah et al., 2019), academic performance (Bonsu, 2016; Nugba et al., 2021; Ofori et al., 2018), and lapses in curriculums and teacher competence (Kporyi & Arko, 2021; Parker et al., 2018; Ocran, 2021). The evident lack of scientific insight into the influences of resilience on academic performance has deprived the academic community and other key stakeholders in this area of interest of some critical insights. Particularly the ability to critically appreciate how JHS students traverse their non-enabling education environment to achieve success amid the plethora of challenges they face almost daily. Considering the parlous state of the Ghanaian education sector, it will be prudent for researchers and practitioners alike to make concerted efforts towards exploring the crucial gap in resilience scholarship.

This research, therefore, seeks to delve deeper into the resilience-academic performance nexus and produce the relevant information needed to shed more light on the relationship between these two constructs, providing further insight into the subject.

1.3 Rationale of the Study

Although resilience scholarship is rich with empirical and theoretical studies that have extensively explored the subject, quite a few areas have still not received much attention from the research community. One of these areas is the evaluation of the relationship that exists between resilience and academic performance. This extant gap in literature offers ample opportunity for research inquiry. Although the existing studies that have been conducted thus far offer some insight into the relationship between the two constructs, many unanswered questions remain, particularly about adolescent students living in

Ghana. To my knowledge, this study is the first of its kind; no other research has investigated the relationship between resilience and academic performance of Ghanaian Junior High School students in the public education sector or any school sector.

The potential benefits this line of enquiry can yield are far too appealing to ignore. By determining how resilience influences academic performance, countries can identify the various protective factors that can actively insulate their students from the stressors inherent in their teaching and learning environments and help them attain academic success regardless of the adversities they face. The Ghanaian education system is grappling with problems relating to a lack of teaching staff, learning materials, inadequate school supplies, large class sizes, poor socio-economic backgrounds of pupils and dilapidated school buildings (Abukari, 2010; Anderson & Donkoh, 2016; Ansong et al., 2018). This leads to low academic achievement among Ghanaian students, especially those at the Junior High School level (Ansong et al., 2018; Nugba et al., 2021; Quansah et al., 2022). The results gleaned from the study will, thus, serve as empirical evidence for formulating government policies and mechanisms to improve the academic performance of Junior High School students all over the country. These policies will aid in improving the educational landscape of the country and create an enabling environment for the unbridled teaching and learning process for Ghanaian students.

On a personal note, growing up, I have had a strong desire to offer help to people I interact with in the form of counselling. In my world of work, with every task I undertook, I felt fulfilled whenever I could help people from diverse backgrounds make giant strides in their lives. My special interest in adolescents led me to pay particular attention to public junior high school students. Most of these students are exposed to more challenging situations at home, school, and their environment with cultural nuances. My passion for helping them meet their needs propelled me to research the complexities of resilience and how they relate to these students' high and low academic performance within the Ghanaian context.

Currently, my work allows me to interact with students from varied backgrounds. Interestingly, some of these students are from the local public schools. This desire was initially ignited when I had the experience of relating to students from public junior high

schools. The question that keeps baffling my mind is, "What is it that encouraged these students from the public JHS to excel in their academic pursuits despite the setbacks? Their peculiar challenges, in addition to the difficulties during the adolescent phase of their lives, made me interested in the factors/strategies that enable them to forge ahead in their academic pursuits and probe further into how they manage to deal with the challenges they are exposed to.

1.4 Purpose of the Study

This study investigates and assesses the relationship between resilience and academic performance among public JHS students in Ghana. To achieve this objective, the researcher intends to comprehensively explore the link between the primary determinants of resilience and the academic performance of junior high students in the public education sector. Hopefully, this research will provide the necessary empirical evidence for policymaking bodies, like the Ghana Education Service, to make the required revisions to the curricula and academic structure of public junior high schools to assist students in attaining academic success regardless of the internal or external stressors that they may be confronted with.

1.5 Problem Statement

The public education sector of Ghana continues to be plagued by a host of challenges that undermine its core mandate: providing quality and formal education to pre-tertiary Ghanaian students (Ghana Education Service, 2020). Apart from the net decrease in enrolment, even though the national population continues to grow apace at the annual population growth rate of 2.2% (World Bank, 2021), there is a sharp decline in the number of students who commence Junior High School (JHS) and the actual number who pass the BECE and progress to Senior High School (SHS). This is supported by Marchetta and Dilly (2019), who emphasised that for every 100 students who enrol in primary school, only 75 will advance to the JHS. This number usually reduces further to 41 by the time students are just about to commence SHS. A trend analysis of Ghanaian public junior high school students in BECE indicated poor academic performance (Nugba et al., 2021). A report by the Ghana Statistical Service indicated that 29% of girls and 40% of boys at the junior high level, who are two or more years older than peers at the same level, are

at risk of dropping out of school. The report also revealed that one out of every four adolescents who should have enrolled in senior high school were unable to make it (Yusif, 2019). Additionally, a study by Ansong et al. (2018) investigating perceived family economic hardship and student engagement among junior high students in Ghana revealed that there is a link between financial challenges and the behaviour depicted by students in school, and there is also a relationship between supposedly poor learners in the JHS and the determination to study. The study also revealed that apparent monetary deprivation is inversely connected with educational achievements.

The educational sector is the foundation for developing human capital, especially in a country with a youthful population like Ghana. This population is needed to build the labour pool needed to support the advancement of the nation. The United Nations Educational, Scientific, and Cultural Organisation (UNESCO) posits that 37% of the population in Ghana are 14 years and below (UNESCO, 2019) ; the majority of junior high school students fall within this age bracket. Moreover, in the 2017/2018 academic year, the total number of JHS students from the private sector made up 36% of the JHS students in Ghana. This implies that the public sector JHS students constitute approximately 64% and make up the majority of JHS students in Ghana (Ministry of Education, 2019). In addition to the above, recent research indicated that public JHS constitute 69% of all schools in Ghana (UNICEF Innocenti - Global Office of Research and Foresight, 2023).

Thus, it is essential that the government and all other stakeholders pay critical attention to the impact the challenges mentioned above pose on the ability of students in this demographic and identify the factors that might potentially inhibit their ability to realise their academic goals and objectives. This brought up the need to discover abilities and areas of interest and find road maps that will enhance the school curriculum. Kwao (2017) recommends that it is important for the various decision-making bodies to determine the best practices which are essential for the intellectual and cognitive development of adolescents while making the required reforms to educational policies and structures.

Although children and young adults around the world face a range of challenges that have the propensity to interrupt normal development, there is an increasing recognition that

these adversities vary in their sources, degrees, and manifestations (Métais et al., 2022). It has also been noted that, despite the parallels in resilience-enhancing interactions that comparable realities across contexts may influence, they are unlikely to be identical and would probably portray cultural and local influences (Métais et al., 2022; Ungar, 2011).

Thus, it is imperative to incorporate contextual elements when exploring resilience. New understandings of resilience viewed through the lens of an African perspective, referred to alternatively as AFRI centrism (also known as Afrocentrism), have emerged because of this developing awareness (Theron et al., 2013). The AFRI-centric paradigm, according to Lateef et al. (2022), is African-focused and based on African concerns and issues that arose in response to conceptual methods that ignored the worldviews of historically oppressed groups and societies. According to this philosophy, Afrocentrism embodies the conventional African ideals of interconnectedness, solidarity, change, and religion (Lateef et al., 2022).

Furthermore, because extant Eurocentric resilience theories only reflect the perspectives of young people in North American and European countries, the resilience of many minoritised and disadvantaged youths in non-Western nations like Ghana is poorly appreciated, and social entities grapple with enabling resilience that regards underprivileged youth's perspectives, culture, contextual experiences and realities (Theron, 2015).

This is rather unfortunate because insights into context-specific resilience possess the potential to help students circumvent the adversities they are confronted with and achieve academic success. As Kwao (2017) notes, there is a need for an inclusive and unified approach in curriculum development to enhance potential and build resilience in students, which will bring forth greater opportunities for school leavers. This approach has the potential to address many of Ghana's most pressing educational challenges. Abukari (2018) discovered that, in the midst of risk factors and stressors, some young adults (at the tertiary level) in Ghana rely on personal and environmental protective factors to overcome the limitations and socioeconomic adversities that negatively affect their academics.

The onus then falls on the research community within the country to replicate this inquiry in the context of public junior high students in the country and determine what factors of resilience can possibly shield them from the adverse influences within their educational environment and set them up for academic success and progress. This is the objective this proposed research sought to achieve.

1.6 Research Questions

This research aimed to advance an understanding of the relationships mentioned above by exploring the attributes and strategies employed by resilient or less resilient students that impact academic performance positively (high academic performance) or negatively (low academic performance). The specific research objectives and questions are stated below.

Primary Research Objectives

1. Assess the factors that influence resilience in students
2. Explore the factors that indicate high academic performance in students
3. Evaluate the factors that indicate low academic performance in students
4. Investigate the factors that influence less resilience in students
5. Analyse the factors that influence resilience and high academic performance in students
6. Explore how resilience is explained by students and teachers
7. Assess how academic performance is explained by students and teachers

Primary Research Questions

1. What factors influence resilience in students?
2. What factors indicate high academic performance in students?
3. What factors indicate low academic performance in students?
4. What factors influence less resilience in students?
5. What factors influence resilience and high academic performance in students?
6. How do students and teachers explain resilience?
7. How do students and teachers explain academic performance?

1.7 Research Methodology

The mixed method approach will be employed. This approach is the amalgamation of qualitative and quantitative research strategies. Since this study will utilise quantitative and qualitative data to answer the research questions, the mixed research approach has been chosen.

A combination of the qualitative and quantitative methods, or mixed methods, was chosen for several reasons. According to Creswell and Creswell (2018), it allows the researcher to generate more empirical evidence than either method independently. This advantage allows the researcher to study comprehensively and gain deeper insight into the constructs of interest (Ivankova & Wingo, 2018; Timans et al., 2019). This is a result of the innate flaws within the quantitative and qualitative designs when used individually, hence the decision to employ mixed methods. The use of quantitative study alone does not allow the researcher to study individual experiences and understand the viewpoint of participants in the research (Khatri & Karki, 2022). The qualitative research method, on the other hand, does not allow the researcher to generalise findings to a larger population since it is unable to accurately determine the position or stance of the total population (Mwita, 2022). The use of a mixed method enables two different dimensions of data to be obtained – closed-ended and open-ended data, in addition to an in-depth interpretation with more information on the location, background and peculiar circumstances of participants (Creswell, 2014).

This study will use the quantitative data gleaned from survey questionnaires to assess the level of resilience in the sampled students. The insights from this stage will complement the academic performance data and serve as the basis for classifying the students into their distinct focus groups: high resilience and high academic performers, high resilience and low academic performers and less resilience and high academic performers. The qualitative data extracted from these focus groups will help the researcher gain a deeper appreciation of the dynamics between these two constructs within the Ghanaian educational context.

1.8 Research Design: Sequential Explanatory Case Study

A research design establishes a structure for gathering and analysing data (Cash, 2018). Emphasis is placed on exploring the possible causal relationships that may exist between variables, allowing the researcher to generalise the findings gleaned from part of the investigation to larger groups, appreciate the behaviour of research variables in a particular context, and gain a temporal appreciation of particular social phenomena and the interrelations they pose (Bell et al., 2022). The explanatory case study or research design will be employed using sequential timing. The execution of the qualitative phase of the study is contingent on the results gleaned from the quantitative phase.

According to Creswell and Creswell (2018), the initial phase of the explanatory case study design commences with the collection and analysis of quantitative data. In this case, a survey will be conducted for the identification of resilient and less-resilient JHS students. In addition to the above, students with high and low academic performance will be determined from the school records. The subsequent qualitative phase draws from the results of the initial quantitative phase to form varied focus groups. In addition to the focus groups, JHS teachers will be interviewed. The qualitative phase provides in-depth insight into answering the research questions. This study will adopt the cross-sectional approach, which involves collecting data on multiple cases at a single point in time. This is done to assess or determine possible patterns of association that may exist between two or more variables (Bell et al., 2022). In our research case, this will be resilience and academic performance.

1.9 Research Philosophy

This chapter summarises the research philosophy. Chapter Four of this study will examine the subject in more detail. Creswell and Creswell (2018) posited that philosophical assumptions are elementary principles that direct our investigations. They can be used independently (alone) or together. Pragmatism was chosen as the primary research philosophy to grant the researcher significant leeway to explore the research topic comprehensively. According to this worldview, research recognises that there are diverse ways of understanding the world; conducting a study and selecting just one approach cannot provide a full picture of the research problem or topic (Kaushik & Walsh,

2019). Conventionally, the two extreme perspectives that are used to determine the nature and reality of knowledge are interpretivism and positivism. However, these two are mutually incompatible. This poses a significant limitation for researchers since many studies fit into or involve some degree of these two approaches.

Fortunately, pragmatism allows a researcher not to be confined to just one philosophy but combine the two based on research questions or objectives, thus interpreting reality as singular (a concept that clarifies a phenomenon) and multiple (the opportunity to consider numerous contributions to the type of phenomenon) (Creswell & Creswell, 2018). In addition to the above, pragmatism allows the researcher to employ several data collection procedures to solve the problem under study. Pragmatism is a worldview in mixed-method design that puts together deductive and inductive thinking. The pragmatist worldview is centred on practical, desirable consequences of an action in the real world, which is pluralistic and aimed at problem-solving (Kaushik & Walsh, 2019). Since this research intends to use both qualitative and quantitative data collection and analysis tools, pragmatism was chosen as the primary research philosophy.

1.10 Theories of the Study and Conceptual Framework

This study used the resilience theory and self-determination theory as its primary theoretical framework. These theories will be examined in more detail in chapter three. Masten's resilience theory is a framework that describes how an individual develops resilience and overcomes adversity. It focuses on the adaptive processes employed to address significant personal and environmental stressors in one's life. The theory acknowledges the multifaceted nature of resilience and suggests that the concept is influenced by several individual, family and community factors. The theory further posits the importance of applying protective factors to insulate an individual against the challenges, risks and problems inherent in one's environment and emphasises the dynamic nature of building upon resilience: it is not a fixed trait but one that can be grown and enhanced over time. On the other hand, the self-determination theory (SDT) argues that motivation is propelled by three inherent psychological needs: competence, autonomy, and relatedness. According to the theory, when the needs above are met, an individual is more likely to be engaged, motivated and productive. However, an opposite

reality will cause an individual to experience negative outcomes and decreased well-being. These two theories provided the framework to explore the extent to which resilience and motivation influence a public junior high school student to achieve their academic goals and aspirations.

1.11 Context of the Study

This research focused on assessing the relationship between resilience and academic performance of Ghanaian public junior high school students. The research scope was confined to three public junior high schools in the Ayawaso West District of the Greater Accra Region. Refer to Figure 4.1 for a map of the Ayawaso West district. By concentrating on three carefully selected public junior high schools in the Ayawaso West district of the Greater Accra Region, the study intends to provide valuable insights into the factors influencing resilience and its impact on the educational outcomes of students in this context. Ghanaian junior high schools have three forms (Form 1, Form 2 and Form 3) corresponding with each year a student is enrolled in Junior High School. This research focused exclusively on Form 2 (year two) and Form 3 (year three) students. The decision to narrow the research scope to Form 2 (year two) and Form 3 (year three) students is deliberate, allowing for a focused examination during a critical period of their academic journey. In addition to the above, these students have spent more than a year in Junior High School. Ayawaso West Municipal Assembly (AWMA) is one of the Greater Accra Region's municipalities. This municipal assembly or district has nine public junior high schools.

The district's economically active population accounts for 63.06% of the total population. This means that practical steps must be taken to provide opportunities to engage the working class. Most of the inhabitants undertake commercial and service-based economic activities. The Municipal Assembly is working to enhance the socioeconomic lives of the residents of the municipality by uninterruptedly designing and executing strategies that will benefit the people. The inhabitants of AWMA came from varied ethnic and cultural ancestry and backgrounds, creating a multicultural ambience. (AWMA, 2019, 2021).

The urban area has plentiful resources and infrastructure. The water coverage by the Ghana Water Company (GWC) in this district is 95%. The waste management procedures involve 81% of the collection, treatment, and disposal of all solid and non-solid waste. In terms of road quality to facilitate accessibility, 82% of the roads are tarred (AWMA, 2021). Sadly, development and expansion in the district have affected vegetation and led to recurring inundation. Noise from religious activities, gatherings at pubs, aeroplanes, and gases emitted from vehicles affect the physical and psychological health of inhabitants in the district or municipality (AWMA, 2019).

1.12 Definition of Key Concept

In this section, I define the primary concepts that I employed in this study. Although these concepts are multifaceted and open to expansive, sometimes divergent interpretations, from henceforth, readers should understand them as stated below.

1.12.1 Resilience

Resilience essentially refers to the ability of individuals to overcome and adapt positively to challenges, setbacks, or adversities in their pursuits, demonstrating a steadfast commitment to learning, maintaining motivation, and achieving success despite obstacles or difficulties (Nimisha & Deepak, 2018). It involves cultivating a robust and flexible mindset, effective coping strategies, and a willingness to persist in the face of academic challenges, fostering a capacity for learning and growth even during setbacks (García-Crespo et al., 2021).

Hiebel et al. (2021) notably defined resilience as a collaborative factor that is focused on the combination of severe risk occasions and, for the most part, certain optimistic mental outcomes in spite of those unpleasant encounters. The research argues that resilience is much more than a social skill or a positive psychological state; it is a combination of these factors and risk (adversity). Thus, in the context of this study, resilience can be described as a positive psychological process that emphasises human characteristics which improve mental health and function rather than flaws and dysfunction when confronted with a challenge, risk, or problem (Infurna, 2020; Kotzé & Kleynhans, 2013; Ungar & Liebenberg, 2011).

1.12.2 Adolescence

Adolescence is a critical stage in anyone's life. During this period one's brain is particularly pliable and undergoes a considerable amount of reorganisation. As such, an individual is quite vulnerable to the harmful effects of adversity or stress inherent within their environment (Fuhrmann et al., 2015). Additionally, it is at this phase that an individual is most susceptible or receptive to resilience-improving or adversity-inducing influences that shape them for adulthood (Malhi et al., 2019). What, then, is adolescence? Aoki et al. (2017) define this concept as a period where robust neural networks, synapses and circuitry are formed to enhance adult cognition through a transitory process in learning potential from rudimentary skills to more complex tasks that involve executive function. In this study's context, adolescence is when students start and finish junior high school, from Form 1 to Form 3.

1.12.3 Junior High School

After students spend six years in primary school, Ghanaian students aged from 12 – 15 years spend three years in Junior High School, where they continue their education with a more comprehensive curriculum that includes a broader range of subjects, building on the foundational knowledge acquired in primary school (Mohammed, 2020). During these three years in Junior High School (JHS) in Ghana, students typically deepen their understanding of core subjects such as Mathematics, English Language, Science, and Social Studies. Additionally, they may be introduced to new subjects like ICT (Information and Communication Technology), home economics, and French (Davis et al., 2009).

The junior high school phase is a critical period for students to develop their academic skills and critical thinking abilities further. It prepares them for the next level of their education, whether it be senior high school or vocational training (Taley & Adusei, 2020). After three years, they write their BECE, a crucial nationwide assessment administered by the West African Examinations Council (WAEC). The BECE serves as a significant milestone in the educational journey of Ghanaian students, assessing their understanding of the various subjects studied during Junior High School (Auwah, 2022). Successful performance in the BECE is a prerequisite for advancing to senior high school, where

students can further specialise in specific academic tracks or pursue vocational education based on their interests and career aspirations.

1.13 Perceived Threats to the Study

This study is characterised by several limitations that constrict the generalisability of the research findings. Due to temporal and financial constraints, only three public junior high schools were selected to participate in this study. As such, in pragmatic terms, the insights yielded were applied to only these contexts. Nonetheless, this study provided a deeper appreciation of the resilience factors that allow Ghanaian public junior students to thrive in a non-enabling academic environment fraught with educational challenges and hindrances. Since this study's sample base comprises mostly minors (students below the age of 18 years), I understood that some parents might be apprehensive about allowing their children (students) to partake in the research. Thus, I tried to assuage their fears by providing a comprehensive description of the research and the nature of the data I required from their children. Additionally, I made myself available to answer any questions they might have had and addressed their anxieties regarding their studies.

In a similar vein, there might have been students who held certain reservations regarding research participation. Consequently, I frequented their campuses to educate potential participants on everything the study entailed and assured them of their autonomy; whether they chose to participate would be entirely up to them. During the data collection phase, I understood that students might hesitate to share their emotions and personal experiences, especially during focus group sessions. Thus, I made concerted efforts to create a safe and enabling environment, free from judgment, that would allow students to air their opinions, views and perceptions regarding all the issues that were discussed during the data collection activities. I reassured them about the importance of the study and explained the ethical clauses which were integrated into the study to protect them from any form of harm through their participation.

1.14 Possible Contributions of the Study

This study explored alternative pathways that public junior high school students in Ghana could exploit to realise their academic goals amid the myriad challenges they confronted in their teaching and learning environment. By researching the role resilience plays in

assisting these students to achieve academic success, schools can gain a deeper appreciation of the dynamics that exist between risk and protective factors, creating an enabling environment for intellectual growth and fortitude in the process. Additionally, schools can leverage the insights produced by this research to design curriculums and other support mechanisms that promote the traits and attitudes which allow students to thrive, irrespective of the adversities they face as they pursue their academic aspirations. This study could also spur policy reforms and interventions that relevant decision-making bodies, like the Ghana Education Service, could leverage to promote quality education within public schools in the country.

1.15 Conclusion

In this chapter, I detailed the background and introduction of this study. I focused on giving an overview of the primary themes that this research intended to explore and the context within which they existed. Additionally, I presented the research problem, purpose, rationale and questions, as well as a summary of the research design and theoretical framework I employed. The chapter concludes with a description of the ensuing chapters this study utilised and the content they contain.

1.16 Outline of Thesis Chapters

This thesis comprises seven primary chapters. The purpose of this section is to briefly summarise their intent and content, as well as present the sequence in which they will appear.

- **Chapter 1 – Overview and Rationale:** this is the thesis' first chapter. Accordingly, it served as an introduction to the research inquiry and presented the background that spurred its relevance. Additionally, the problem statement, rationale and research questions were outlined, outlining the direction the researcher adopted in completing this study. A summary of the theoretical framework, research design and philosophy, and a description of the ensuing chapters were also included in this chapter.
- **Chapter 2 – Literature Review:** This chapter outlines the literature that was pertinent to the research interest. Attention is placed on reviewing literature that adequately operationalises the main variables of concern in this study and

examined the research context. Specifically, the chapter's intent was to detail a comprehensive appreciation of germane issues related to the resilience of adolescents in Ghanaian public junior high schools.

- **Chapter 3 – Theories of the study and conceptual framework:** This chapter presents the underlying theories that informed the research inquiry. These theories are holistically examined, and their implications for the overarching themes this study explored will be detailed.
- **Chapter 4 – Research methodology:** This chapter will explore the research methodology that was applied to realise this study's objectives, which chiefly focused on investigating the relationship between resilience and academic performance of Ghanaian public junior high students. The chapter includes the research design, sample specification, data treatment procedures, research rigour techniques, and ethical considerations of concern for the study.
- **Chapter 5 – Quantitative Data Presentation and Analysis:** This chapter presents the quantitative data presentation and findings gleaned from executing the research methodology. The researcher details how these findings answered the underscoring research objectives and examined how the generated insights either conformed or diverged from the empirical literature.
- **Chapter 6 – Qualitative Data Presentation and Analysis:** This chapter presents the qualitative data presentation and findings gleaned from executing the research methodology. The various themes that emerged from the interviews and focus groups are discussed in detail. Attention is also given to how the research results contributed to the underpinning academic endeavours and advanced the nascent stream of interest.
- **Chapter 7 – Conclusion and Recommendations:** This is the final chapter of this study. It focuses on detailing the concluding remarks of this endeavour. It answers the research questions and presents empirically informed recommendations that benefit the key stakeholders of the study and advance this line of research.

CHAPTER TWO: LITERATURE REVIEW

2.1 Conceptualising Resilience

People encounter various challenging circumstances throughout their lives and must adjust to numerous changes that impact their everyday endeavours, functions, and activities (Mayordomo-Rodríguez et al., 2015). Thus, implementing several tactics to achieve the cognitive and emotional balance they had before such experiences is crucial for maintaining psychological well-being and managing these maladaptive events. Resilience is one strategy for dealing with these kinds of circumstances in an adaptable manner. While this construct has received considerable academic interest in recent years, its conceptualisation is marked by ambiguity stemming from scholars' divergent views and postulations regarding its nature, applications, and manifestations (Kalisch, et al., 2017). The fact that there are significant differences in how resilience is defined and conceived is one of the key challenges in the underlying resilience epistemology, as Fletcher and Sarkar (2013) point out.

These fundamental differences make it challenging to conceptualise the construct and impede the assessment and comparability of theoretical or empirical findings (Davydov et al., 2010; Kalisch et al., 2015a; Kalisch et al., 2015b). Based on empirical outcomes, resilience either manifests itself as an altered perspective on life based on an experienced struggle (Gheshlagh et al., 2017; Waugh et al., 2011), the emergence of new strengths or competencies (Machida et al., 2013), immunisation against the effects of future stressors (Mannino, 2015; Paredes et al. 2021), or an epigenetic alteration of gene patterns (Elbau et al., 2019; Maul et al., 2020). Thus, “a common pitfall of resilience research is that it is virtually impossible to proffer a universal description of the concept since most studies rely on subjective or empirical judgement within their fields of endeavour” (Xue et al., 2018, p. 478). Yet regardless of the domain within which it is discussed, there is a recurring motif in the expression of resilience: the circumvention of adversity (Noitemeyer & Bush, 2013), stress (Luthar & Cicchetti, 2000), and challenge (Southwick & Charney, 2012).

Derived from the Latin word “resilio”, the initial definition of resilience referred to a material’s ability to return to its initial state after it has been misshapen or deformed

(Mayordomo-Rodríguez et al., 2015). However, the social and ecological sciences co-opted this word and gave it a new meaning (Xue et al., 2018). One of the earliest definitions in this domain was put forth by Holling (1973), who described the construct as the magnitude of exertion or disturbance a system can sustain before a change occurs. However, behavioural psychologists and scholars within this sphere of research view the construct as a competency or positive coping mechanism in response to adversity (Egeland et al., 1993; Luthar & Cushing, 1999; Ryff & Keyes, 1995). Although the nomenclature and terminologies of subsequent definitions of resilience within this domain diverged in subsequent years, they drew parallels with the principal positive adaptation-adversity nexus (Kalisch et al., 2017). This implies that one cannot exist without the other; for resilience to come into effect, adversity must precede it (Luthar et al., 2000).

Kalisch et al. (2017, p: 7) put forth:

“Resilience can now be operationalised and understood as the result of a dynamic process of successful behavioural changes or adaptations to adversity, then, logically, resilience should be defined as an ‘ex post facto’, that is, as an effective mental health outcome following a negative life event or a period of difficult life circumstances.”

Consonantly, researchers have defined the concept as, the ability to recover from an adverse emotional experience (Tugade & Fredrickson, 2004), the capacity to sustain optimal psychological functioning when confronted with major life stressors (Kaplan et al., 1996), and even the American Psychological Association (APA) operationalises the construct as “the process of positively adapting in the face of trauma, adversity, threats, tragedy and any other significant source of stress” (Newman, 2005). Similarly, contemporary researchers define the construct as an entity’s ability to cope with shocks effectively (Walker, 2020), or the ability of people to withstand setbacks, positively adapt, and recover from adversity (Killgore et al., 2020).

While many scholars argue that resilience is a dynamic construct (Sleijpen et al., 2017; Xue et al., 2018), rather than a static trait, there is still a considerable amount of

consternation about its antecedents, dimensions and constituents (Mayordomo-Rodríguez et al., 2015; Kalisch et al., 2017).

According to Masten and Powell's (2003) theory, resilience refers to patterns or behaviours of constructive adaptation in the face of severe risk, adversity, or challenge. Resilience may fluctuate across time and life stages, displaying changing patterns and behaviours; therefore, it is a dynamic process rather than a static trait. On the other hand, resilience is described by Greve and Staudinger (2006) as a constellation: the match between personal resources (capabilities, skills, and possibly even characteristics), social factors (such as social support), and the developmental challenge or issue (e.g., obstacles, problems, and losses). According to Fletcher and Sarkar (2013), resilience is made up of a variety of elements, such as an individual's assessment of stressors, their metacognitions as a response to experienced emotions, and their choice of coping mechanisms, that promote personal assets and shield people from the negative appraisal of stressors. According to Hu et al. (2015), resilience plays a different function or adapts when adversity changes. As a result, the construct alters as a person faces various difficulties and pressures. Therefore, due to the divergent views and perspectives on the construct, Pangallo et al. (2015) contend that more conceptual development is necessary to understand resilience as a dynamic and interacting phenomenon due to the contradictions and disparities related to the description and operationalisation of the term.

Consequently, many proponents and experts on the subject have emerged, all exploring the subject from different standpoints and describing the concept in different ways. Herrera (2017) notably defined this construct as an interactive factor that is centred on the amalgamation of severe risk events and a generally positive psychological result despite those experiences. The researcher goes on to argue that resilience is much more than a social skill or a positive psychological state, but rather a combination of these factors and risk (adversity).

Similarly, Lara-Cabrera et al. (2021) posit that resilience does not imply that an individual is immune to stress, but rather, it explains the ability of the said individual to successfully recover and sustain adaptive behaviour after first withdrawing or being incapacitated as a result of a stressful experience. He further points out that stress or challenge is a fact

of life that all individuals will experience at some point in their lives. Two key considerations underpin the determination of resilience. The first asks if the individual is "doing well," whereas the second assesses whether the individual is facing, or has faced, tremendous difficulties (Ungar et al., 2012).

An individual cannot be characterised as resilient without suffering or surmounting some hardship; resilience and vulnerability or hazards are considered two opposing poles that interact with each other. Vulnerability can be related to exposure to risk. The expression "risk factor" means the states and factors that raise the likelihood of an unfavourable outcome, either by intensifying or perpetuating the challenge (Zinn et al., 2020). Individuals susceptible to these risks are often exposed to unfavourable situations that accumulate and adversely impact them over time, giving rise to the concept of cumulative risk (Tian et al., 2018). As the level of accumulated hazards or adversity rises, the likelihood of positive behaviour outcomes diminishes considerably. Protective factors, on the other hand, are found within a person's environmental conditions or realities and work to minimise or mitigate the negative impacts risk factors have on an individual (Abukari, 2018).

One of the critical assumptions in resilience research is that some people perform well despite being exposed to adversity and misfortune, whereas others struggle to cope under similar circumstances (Loke & Mohd-Zaharim, 2019). This notion of resilience implies anticipating practical or adaptive responses to adversity. Individual growth and development are thought to be affected by distressing life experiences that are either amplified by environmental risk factors or reduced by environmental protection factors (Gates, 2018). Given the degree of risk or protective variables, such events might produce two outcomes: either resilience or vulnerability. However, throughout the last three decades, much discussion has been over the specific conceptualisation, significance, and evaluation of resilience (Abukari, 2010). As a result, there is a developing consensus on the necessity for operational and functioning resilience definitions. This shows that uncovering resilient modes of adaptation demands the incorporation of numerous linked concepts, such as risk and protective factors (Tian et al., 2018). The presence or absence

of these factors (protective or risk) determines how resilient or less resilient an individual is.

2.2 Risk Factors

Hazards or dangers that raise sensitivity or susceptibility to adverse developmental or health consequences are referred to as risk factors (Ruey-Hsia et al., 2010). These can have many causes and distinct effects on the people who experience them. Stress is considered one of the most common risk factors that many people are vulnerable to (Eshel et al., 2018). In essence, stress is a person's subjective judgment of risk (Anderson & Innocenti, 2020). Additionally, health-risk behaviours occur in a sociocultural framework, and environmental risk factors, which are external to an individual's level, may have a detrimental impact on that person's behaviour (Barnová & Tamášová, 2018). Risk factors are expansive and can affect people of all demographics. School performance is a statistically significant cause of stress for teenagers and young adults. It has been shown that this risk factor has extremely detrimental effects on a person's mental and physical health and wellness. For instance, research by Park et al. (2014) found a correlation between subpar academic performance and depression, poor decision-making competency, and unhappiness. Young adolescents' risk behaviours have also been demonstrated to be significantly influenced by peer and parental risk behaviours (Oldfield et al., 2018). For early to mid-career professionals, Wickramasinghe (2016) found job stress to have significant implications on work-related outcomes and dimensions like job clarity and career commitment. Eun-Sil and Han-A (2017) found that the primary source of stress among the elderly was health-related concerns. However, according to Tan et al. (2021), resilience is a buffer against the negative implications such stresses yield.

2.3 Protective Factors

When risk factors are present, there are protective factors or assets that either help to achieve positive results or lessen or prevent a negative consequence (Hoorelbeke et al., 2019). Positive traits, propensities, and influences that can shield individuals from harmful influences are known as protective factors. Protective factors may often be divided into two categories: individual and environmental (Ruey-Hsia et al., 2010). Self-efficacy, self-

esteem, and emotional control or regulation have been viewed as individual protective factors (Yang et al., 2019). Self-esteem is a personal evaluation of oneself that indicates how one feels they are deserving or competent (Arslan, 2016). Self-esteem seems to act as a buffer against a slew of risky behaviours among several vulnerable demographics. Such behaviours include drug use, teenage pregnancy, and suicidal ideation (Agba & Ndubisi, 2022; Manani & Sharma, 2016; Yang et al., 2019). A widespread belief in one's ability to act well in a variety of situations is known as self-efficacy (Jaeh & Madihle, 2019). Numerous earlier research studies have proven that self-efficacy and risky behaviours are correlated; that is, the former construct serves as a shield against certain indulgences that might negatively or insidiously harm an individual (Yang et al., 2019). Stress management that involves emotion regulation is an essential protective factor. The relationship between emotional control or regulation and a person's health and well-being has been found to be closely related (Houck et al., 2015).

Support avenues and opportunities offered by adults in the home, the classroom, and the greater community are referred to as environmental protective factors (Wenning et al., 2017). According to several studies such as Véronneau and Dishion (2010), Hurd et al. (2009) and McCoy and Bowen (2015), certain environmental assets, such as family communication, peer role models, future aspirations, responsible choices, and non-parental role models, are significantly and negatively related to an individual's risk behaviours (Wexler et al., 2014). The impact of one's response to stress on mental health is significant. For instance, employing adaptive emotion management techniques like positive (re)appraisal instead of repeatedly thinking negatively in response to stress is a well-known predictor of well-being (Hoorelbeke et al., 2016; Troy et al., 2017). As a result, positive self-evaluation, self-esteem and efficacy have been proposed as crucial components of resilience (Kalisch et al., 2015).

2.4 Conceptualising Adolescence

Human development is marked by several essential milestones in moulding a well-adjusted and socially conscious individual. Adolescence presents a critical inflexion point that marks one's transition from childhood to adulthood and spurs a host of physical, cognitive, hormonal and socio-emotional changes within the said individual (Hurrelmann

& Quenzel, 2013). Unsurprisingly, this phase of development has garnered considerable scholarly interest from a host of practitioners and specialists from a myriad of fields spanning the neurosciences to clinical psychology (Feigelman et al., 2016; Hu et al., 2019; Kragel et al., 2014). Accordingly, the construct has no universal definition, as its characterisation is based on the context within which it is explored. For instance, Swartz et al. (2014) posit that the prefrontal cortex-amygdala's structure and function undergo considerable age-related transformations during adolescence. The authors further state that from a neurological perspective, neural circuitry experiences substantial changes in perceptual, cognitive, and emotional processing. On the other hand, Booth et al. (2019), in the context of behavioural psychology, characterise adolescence as the age-induced limbic system changes that spur significant alterations in behaviour, such as increasing levels of impulsivity and risk-taking. These changes are also linked to improved decision-making and amplified emotional responses. Additionally, this developmental phase precipitates protracted myelin synthesis within the prefrontal context, which improves several executive functions such as cognitive flexibility, attentional control, and information processing (Arain, 2013).

However, from a sociological point of view, adolescence is viewed as a period of heightened social awareness. As Ahmed et al. (2020) postulate, during this stage, an individual is particularly susceptible to social influence and tends to adopt the opinions, behaviours, personalities, and judgements of others to fit in more with a social group. Lam et al. (2014) note that adolescence triggers significant social re-orientation as an individual begins to prefer spending more time with peers as opposed to family members, and peers become an extra source of social input and influence (van den Bos, 2013). Additionally, during this period, adolescents become quite sensitive to peer rejection and social approval, which increases their likelihood of conforming their behaviours to that of their peers to gain social acceptance (Blakemore & Mills, 2014; Somerville, 2013).

Biologists view the construct through different lenses. From their perspective, adolescence manifests largely through accelerated physical growth and sexual development (Claro et al., 2014). For many, this marks the beginning of puberty. Adolescence marks the pivotal period of human development that signifies the beginning

of puberty, a time of profound physiological changes. Puberty, the hallmark of adolescence, is characterised by the maturation of the reproductive system, leading to the development of secondary sexual characteristics (Grower et al., 2019). This transformative process is triggered by the release of hormones, including a gonadotropin-releasing hormone (GnRH), which stimulates the production of sex hormones such as oestrogen and testosterone (Herting et al., 2015). In girls, puberty typically manifests through breast development, the onset of menstruation, and the growth of pubic and underarm hair (Biro et al., 2014). Boys, on the other hand, experience the enlargement of the testes and penis, the growth of facial and body hair, the broadening of shoulders, and the deepening of the voice (Singh et al., 2015). These physical changes during puberty reflect the activation and maturation of the reproductive system, paving the way for sexual development and fertility. It is also during this stage that an individual becomes self-aware of their body image and compares self-perceptions with their peers. Naturally, the outset of sexuality – desire, arousal, behaviour, expression, and function – is exhibited at this phase of life, as the individual begins to experience sexual attraction for either the same or opposite sex (Fortenberry, 2013).

Although each discipline explores this construct through context-coloured lenses, one thing is certain: Adolescence is a period of immense change that could render an individual feel overwhelmed, stressed, and anxious. Accordingly, it is during this phase that behavioural disorders and mental health problems are most prominent (Coughlan et al., 2013). The implications of these issues can be rather unnerving. According to Naicker et al. (2013), the period of immense and rapid changes leaves many members of this demography vulnerable to severe depressive episodes. Rawana and Morgan (2013) further state that due to developmental factors, adolescents are highly susceptible to experiencing low self-esteem and eating-and-weight-related disturbances that may persist well into young adulthood. Oberle and Schonert-Reichl, (2013) found that the social pressures an individual experience during adolescence creates complications with peer acceptance and stifle the attainment of academic excellence and success. When one does not find a constructive outlet to externalise these problems and limitations properly, the repercussions can be quite severe. Elmasry et al. (2016) found that there is

a high tendency of male adolescents to engage in verbal and physical aggression against their peers, specifically in urban schools.

Similarly, Samili et al. (2019) discovered that aggression is becoming increasingly prevalent among adolescents who do not have an effective conduit to channel and address the frustrations and stressors they are confronted with. Self-harm is yet another issue of concern at this stage of development. Stănicke al. (2018) assert that when adolescents are denied the affective experiences and relational needs of care from their primary caregivers or social groups, there is a significant propensity to engage in self-inflicted harm and destructive behaviour. Consonantly, Uh et al. (2020) discovered that adolescents typically follow two distinct pathways to self-harm. The first is a psychopathological pathway, which results from early and persistent emotional challenges stemming from bullying and social isolation. Alternatively, the risky behaviour pathway is precipitated by risk-taking and social influence, which generally emerges later during the progression of adolescence. Unsurprisingly, the suicide rates within this group are rather alarming. Björkenstam et al. (2017) found clear evidence to suggest that childhood adversities are among the primary antecedents that spur the propensity of suicide among adolescents. Children at this stage of life are particularly sensitive to an unsupportive family and social background and academic-related challenges.

In the quest to realise escape from their troubled realities, some adolescents abuse drugs and alcohol. Accordingly, Allen et al. (2020) assert that for many, adolescence is a stage of experimentation and immense peer pressure, leaving an individual vulnerable to adopt damaging behaviours that could produce adverse long-term ramifications and negatively influence the quality of life. Van Ryzin and Dishion (2014) found that early substance use progressively escalates throughout adolescence and provides entry into a deviant social context that further increases the risk of dependence. In the same vein as indulging in questionable behaviour, there is another tendency for adolescents to engage in illicit activities. Moffitt (2017) postulates that adolescent criminal behaviour is largely propelled by developmental and social pressures. According to the author, factors such as the desire to seek out new experiences, peer approval of illicit behaviour, and the need to establish autonomy by engaging in “adultlike” behaviour drive these kinds of behaviour in

adolescents. Additionally, these actions could also be an adaptive response to normative social-developmental pressures such as an unsound family environment and relational conflict with friends and peers.

It is, therefore, critical for researchers and other stakeholders to generate effective pathways in insulating such individuals from damaging behaviours and social pressures that prevent them from growing to become well-adjusted and productive members of society. Zorza et al. (2017) stress the need for the provision of the requisite support mechanism to enable adolescents to traverse the myriad issues and concerns they are confronted with effectively as they progress through this critical developmental stage.

2.5 Resilience in Adolescents

World War II (WWII) created the conditions for the development of resilience science and raised awareness of the situation of children who were impacted by the destruction on a global scale (Werner, 2012). Millions of children lived in dangerous circumstances— orphaned, unwell, maimed, traumatised, and starving—and many of them perished. Many youngsters had to be evacuated or relocated through the efforts of several relief groups, yet the psychological impact of the conflict persisted. The United Nations International Children's Fund (UNICEF) was established soon after the war to deal with this widespread emergency (Diers, 2013). Around 1970, pioneering researchers studying children at risk for psychopathology and other issues realised the significance of the striking variability they observed among groups of children dealing with multiple risks and adversities, and resilience science began to emerge in the field of child research (Masten, 2015). Strategies for evaluating risk or adversity and other factors that might explain variations in adaptation among children at risk became prominent facets of resilience research, as well as statistical testing methods for models or hypotheses about the interaction between these potential resilience-enhancing factors (Masten, 2013).

Investigators rapidly realised that children were frequently exposed to several risk factors or adversities. Therefore, single risk indicators could not accurately reflect the reality of adversity exposure in children. Evidence on the consequences that unpleasant life events have on children's health and well-being is still mounting, especially when those experiences are lengthy, cumulative, or occur at critical times in the early stages of

neurobiological development (Black et al., 2017; Oh et al., 2018). Concurrently, there is increased worry over how catastrophes, conflict, poverty, pandemics, climate change, and related displacement affect children throughout the world (Masten, 2013). A spike in interest in resilience across a variety of industries and disciplines may be attributed to the convergence of emerging dangers that have substantive implications for children's health presently or in the future, as well as prevalent limitations and roadblocks which impede their ability to lead successful and happy lives (Southwick et al., 2016; Van Breda, 2018).

The conceptualisation of the construct has become increasingly dynamic over the decades since the study on child resilience first emerged (Masten, 2013; Schoon, 2012), mirroring a larger systems transition in developmental science (Zelazo, 2013). The performance of complex adaptive systems that are always interacting and changing determines a person's resilience during development. As a result, an individual's potential for adaptation will be spread among several interdependent systems, altering their resilience over time. Many of the often-noted protective elements for children's individual resilience, according to Masten (2013), are adaptive systems fashioned by biological and cultural evolution. Close attachment ties, incentive structures and skill mastery, intellect and executive processes, as well as cultural traditions and belief systems, including religious ones, are some of these factors.

Ungar (2011) suggested a social-ecological resilience model that emphasises the importance of context and culture. At Dalhousie University, Ungar and colleagues established the Resilience Centre, bringing together a network of researchers from five different continents to investigate resilience. They are producing a wealth of qualitative and quantitative evidence that both advances and refutes resilience theory (Ungar et al., 2013). For instance, researchers discovered the significance of "Botho" (a philosophy akin to "Ubuntu" in other African cultures that emphasises human interconnectedness) in the Basotho population of South Africa (Theron et al., 2013). Youth characterised as resilient in Basotho were said to be adaptable and determined—qualities identified in youth considered as resilient in various cultures—as well as linked to neighbourhood support networks and respectful of neighbourhood values significant to their culture.

The acceptance and recovery of young people who are battling to overcome traumatic experiences, particularly when they have transgressed social norms or committed atrocities against humanity while under duress, appears to be significantly influenced by cultural rituals, according to research (Sanders & Munford, 2015; Vindevogel et al., 2015). Furthermore, a core facet of resilience research within this domain focuses on promoting healthy development among children at risk of bad childhood experiences. Researchers seek to identify good developmental pathways among adolescents who are able to hold their own or even prosper despite adversity (Kalisch et al., 2017).

Complex adaptive systems, such as human beings, families, economies, ecosystems, and organisations, all exhibit resilience (Xue et al., 2018). Systems within a person, such as the immune system, might also be included in this concept (Van Schroyen et al., 2017). As such, the notion that a developing person's resilience is not limited by their body or intellect is one of this concept's most significant implications (Masten, 2015). An individual's ability to overcome obstacles is influenced by their connections to others and systems outside of themselves through relationships and other activities. Resilience is the sum of an adolescent's adaptive potential at any given moment and in any particular setting, which may be used to address present or upcoming problems. This capacity is represented by a variety of interconnected processes and relationships. Although individual differences in personality or cognitive abilities undoubtedly contribute to adaptive ability, resilience is not a feature (Kalisch, et al., 2017).

Throughout their lifespan, supportive interactions are extremely important for building and sustaining resilience (Chiang et al., 2018). An adolescent is protected by strong attachment relationships with a caregiver and good parenting that are in many ways not "in the child" or intrinsic but rather social and environmental. Humans have a high potential for adapting to adversity in part because of the numerous interconnected systems that coevolved during biological and cultural evolution, providing benefits for adaptation (Masten & Barnes, 2018). Furthermore, children frequently have several "backup" mechanisms in place to keep them safe, many of which are ingrained in their interactions with other people in their families and communities.

Although it was formerly believed that resilience was a fixed quality, it is now understood to be a dynamic process that may be altered throughout a lifetime (Chmitorz et al., 2018; Masten, 2015). This viewpoint means resilience has learnable cognitive, attitudinal, and behavioural components (Pinto et al., 2021). While many different populations may benefit from these interventions, some stages of development may be particularly suited for putting resilience-building measures into place. Childhood is one of these times due to the increased brain plasticity and learning potential at this age (Masten & Barnes, 2018). Adolescence, which is marked by the development of executive functions, permitting increased ability for planning and self-regulation, is another advantageous developmental time for the application of such treatments. Additionally, this development period is marked by a propensity to interact with peers. If a person associates with peers who have favourable influences on them, this may change the course of their life (Masten & Barnes, 2018). Adolescence may be thought of as the time between childhood and adulthood, and it can last up to the age of 22 (Goossens, 2006). This period is thus ideal for investigating the dynamics of resilience within a subject and identifying the antecedents that spur or stifle the concept.

2.6 Conceptualising Academic Performance

Despite the ambiguous and amorphous nature of academic performance, the construct is one of the widely used and essential terms applied in education institutions at all levels (Kenny, 2016). One area of scholarly interest that has emerged because of this is an inquiry into the true dimensions that comprise or constitute the term. According to Noemy et al. (2017), the construct is, with increasing frequency, being used as an all-encompassing phrase to combine a myriad of complimentary and sometimes divergent student/institutional outcomes. Tanilon et al. (2011) further state that the term is only narrow in the sense that the prefix “academic” is intended to confine its applicability to the achievement of results that are specific to an individual’s educational experiences.

Nonetheless, there currently exists a glut of studies that seek to assess the primary antecedents, dimensions and factors that influence or spur academic performance to develop more robust assessment paradigms and address the increasing pressures from academic institutions to comprehensively document and chronicle student learning and

development (Okwuduba et al., 2021; Tanilon et al., 2011). Suffice it to say that assessing the psychosocial and psychological factors that influence knowledge acquisition is a complex and nuanced undertaking. This challenge stems from the fact that the very outcomes that academic performance seeks to measure are themselves poorly defined in several contexts; many of which assess a parochial aspect of academic success, growth and development. In his seminal study, Terenzini (1989) argues that the primary objective of any good assessment is to clearly describe and articulate the outcomes that one seeks to measure.

However, Noemy et al. (2017) contend that academic performance is a nebulous construct that broadly integrates various educational outcomes, spanning certification attainment to moral development. Additionally, this level of ambiguity can be partially ascribed to its inherently perspectival orientation; different constituents and stakeholders view performance and success differently and, as such, operationalise the term through disparate lenses.

This conceptual limitation presents a significant drawback in truly appreciating the holistic nature of this multifaceted construct. According to Arum and Roksa (2011), adopting a narrow operationalisation of academic growth and success within an educational context can lead to inconsistencies as grading approaches differ widely within and between institutions, resulting in unreliable construct measurements. This precludes the accurate assessment of student growth and learning between and among different schools and academic institutions. This significantly limits the generalisability of empirical insights since academic success is typically construed through a narrow lens. Thus, there are considerable disparities in the findings and conclusions in the underlying literature that explore this subject due to the perspectival conceptions that decrease cohesion amongst institutional, research, and practitioner constituents regarding academic priorities and goals (Ciorbea & Pasarica, 2013; Martínez et al., 2019).

A faculty member might examine the construct as a student's ability to successfully acquire specific knowledge and skills by completing a series of courses. However, from an administrator's perspective, the term details the ability of a student to advance through the academic structure of the institution and find success in the occupation or the field of

their choosing. While both arguments are valid, they exemplify the need for constructing a more inclusive concept that enhances its applicability in varying contexts. Addressing this gap, Noemy et al. (2017) adopted Astin's Inputs-Environments-Outcomes (I-E-O) model as a theoretical basis for comprehensively analysing and operationalising the concept. According to the authors, academic performance is a multifaceted concept that comprises academic achievement, attainment of skills, knowledge and competencies, and retention.

Academic achievement captures a student's ability to complete coursework successfully. Skill, knowledge, and competency attainment have considerable overlap with the prior dimension. However, it is more centred on a student's ability to effectively apply the lessons learnt in the classroom and the quality of their academic work. On the other hand, retention refers to the perseverance a student demonstrates as they progress through the different levels of the institution and ultimately gain the relevant certifications and degrees. Similarly, Džubur et al. (2020) adopted an expansive approach in describing the construct as an interplay between social and psychological factors that influence a student's ability to realise their academic goals. The researchers add that employing a parochial approach to operationalise the construct is ill-advised due to its expansive nature and the divergent antecedents that influence it.

2.7 Antecedents of Academic Performance

Understanding the factors that influence academic performance is a crucial endeavour in education. This section delves into the antecedents of academic performance, exploring the multifaceted influences that shape students' achievements and learning outcomes. As the reviewed literature highlights, the construct relies on complex interactions between internal and external factors that either support or inhibit student success or progression. As such the section explores personality, learning styles, intelligence and cognitive ability, environmental factors and resilience as the primary antecedents of academic performance.

2.7.1 Personality and Academic Performance

Mateus et al. (2021) posit that a student's personality traits are critical factors that either support or impede academic performance. The Big Five personality framework is

essential for examining which personality classes positively influence the underlying construct (Conrad & Patry, 2012). These include agreeableness, extraversion, neuroticism, conscientiousness, and openness to experience.

Rosander and Bäckström (2014) found conscientiousness and neuroticism had a statistically significant effect in predicting the academic performance of secondary school students in Sweden. Conscientious individuals tend to be organised, disciplined, and goal-oriented, leading to diligent study habits, responsible time management, and consistent effort in their academic pursuits (Passamonti et al., 2019). Their strong sense of responsibility and commitment to achieving academic goals can result in higher levels of engagement with coursework and a proactive approach to learning (Smith et al., 2016). On the other hand, neuroticism, which is characterised by emotional instability and a tendency to experience negative emotions, can have both positive and negative effects on academic performance (Buchanan, 2017). High levels of neuroticism may lead to increased anxiety and stress in academic settings, which could hinder concentration and performance during exams or important tasks (Swanberg & Martinsen, 2009).

Thiele et al. (2018) argue that the popularity and centrality of extraverted students are among the core facets that promote their academic performance within a given context. Individuals who score high on extraversion tend to be outgoing, social, and energised by interactions with others (Zamani & Pouratashi, 2017). This can be advantageous in certain learning environments, such as group discussions and collaborative projects, where extroverts thrive and actively engage with peers. Their tendency to verbalise their thoughts and ideas contributes to effective classroom participation and teacher-student interactions, which aids in the learning and knowledge acquisition process (Hendy & Biderman, 2019).

Individuals who score high on agreeableness are typically cooperative, compassionate, and empathetic towards their colleagues and supervisors. In an educational context, agreeable students tend to work well with their peers, readily participate in group activities, and promote a harmonious classroom atmosphere (Schippers, 2014). Their ability to communicate effectively and resolve conflicts peacefully can facilitate collaborative learning and effective teamwork.

However, Gatzka and Hell (2018) arrived at inconclusive results when examining the influence of openness on academic performance. After conceptualising the construct into six primary dimensions, the researchers found only two had a positive and statistically significant influence on the dependent variable. The diversity of results regarding the dynamics that exist between personality traits and academic performance is indicative of the multifaceted manifestations of the construct and highlights how adopting an inclusive standpoint in assessing its inhibitors and stimulants could potentially offer a more nuanced understanding of its nature.

2.7.2 Learning Styles and Academic Performance

Ishak and Awang (2017) and Chetty et al. (2019) adopted a different approach to assessing the determinants of academic performance. These researchers prioritise learning styles as the primary factor that explains how well students can realise their education goals and ambitions. According to Fuad et al. (2020), learning styles are the approaches student employ to acquire and retain information most effectively. They are characterised as cognitive, social, affective, and psychological characteristics and act as markers of how the student learns and engages with a given teaching and learning environment (Torres, 2013). Felder and Silverman (1988) were among the first to operationalise learning styles across four primary dimensions which include active or reflective (process), sensing or intuitive (perception), visual or verbal (Input), and sequential or global (understanding). The first facet explores how information is processed by a student. Students who are active acquire and retain information best by working actively with the academic or learning material, applying knowledge gained, and are interested in working in groups where they can engage with team members on study content and discuss the provided learned material (Zhan et al., 2011).

Active learners are highly engaged and participative individuals who prefer to learn through hands-on experiences and interactive methods (Tran et al., 2018). They tend to thrive in dynamic learning environments that encourage active exploration, discussions, and practical application of knowledge. For active learners, passive learning, such as listening to lectures or reading texts without interaction, may not be as effective as it does not provide them with the opportunity to actively process and internalise information

(Toohey et al., 2016). Instead, they excel when actively involved in discussions, group activities, problem-solving exercises, and real-world projects, allowing them to constantly assess their knowledge gaps and find practical solutions for addressing them (Aji & Khan, 2019). Active learners enjoy asking questions, seeking answers, and experimenting with concepts to deepen their understanding. They value the chance to collaborate with peers, as it enhances their learning experience by enabling them to learn from others' perspectives (Kolluru et al., 2012). Active learning environments stimulate their curiosity, critical thinking, and creativity, fostering a deeper connection to the subject matter. Sjöstedt (2015) found that students who adopted an active learning style generally had better academic results and effectively realised their course's learning outcomes.

Alternatively, reflective students have a preference to work independently and critically examine the learning material they have received by themselves (Xiao et al., 2014). Reflective learners often prefer to learn independently because it allows them the time and space for introspection and self-discovery (Theobald, 2021). These individuals possess a deep sense of self-awareness and are inclined to think critically about their experiences and knowledge acquisition. Independent learning offers them the freedom to explore subjects at their own pace, focusing on areas of personal interest and relevance (Gallagher et al., 2017). This approach enables reflective learners to delve deeply into the material, connecting new information with their existing knowledge and experiences. Moreover, the solitude of independent learning provides them with an environment conducive to contemplation and thoughtful analysis, fostering a greater understanding of complex concepts (McKinney & Sen, 2012). Jiraporncharoen et al. (2015) found a reflective learning style to predict the academic performance of medical students in Thailand.

The other dimension of the learning style spectrum is sensing or intuitive. On the one hand, sensing students have a preference for learning hard, verifiable facts, applying structured approaches to solving complex problems, and applying the learned material acquired to real-life contexts (Alshmrany, 2021). On the other hand, students who have an intuitive style prefer to learn abstract material or content, such as theories, their manifestations, and applications, are more creative and able to discover different

possibilities and relationships between constructs (Marosan et al., 2022). Students of the former category are detail-oriented and rely on observable data, seeking practical applications and real-life examples to make sense of new concepts. Sensing learners excel in structured learning environments, where they can follow step-by-step instructions and work with tangible materials. On the latter spectrum, intuitive learners are more inclined to seek patterns, connections, and underlying meanings in the information they encounter (Kamal & Radhakrishnan, 2018). They are imaginative and often rely on their intuition and gut feelings to grasp complex concepts. Intuitive learners are comfortable with ambiguity and may be more interested in theoretical and abstract ideas. As a result, they enjoy exploring possibilities and thinking outside the box, valuing creativity and innovation. Jahanbakhsh (2012) discovered that both sensing and intuitive learning styles had positive and statistically significant correlations with the academic performance of students in the mathematic sciences.

Then again, the visual-verbal dimension differentiates students' perceptual preferences during the learning process (Türk & Erçetin, 2012). Visual learners prefer to use images, diagrams, charts, and other visual aids to grasp concepts and retain knowledge (Lin et al., 2017). They learn best through seeing and observing, as visual cues help them create mental associations and enhance their memory. Visual learners often benefit from well-organised and visually appealing materials, such as infographics or videos, which engage their imagination and creativity. On the other hand, verbal learners excel in processing information through words and language (Lwande et al., 2021). They prefer listening to lectures, engaging in discussions, and reading texts to understand and internalise new information. Verbal learners have strong language skills and may enjoy writing and expressing their ideas through words. They thrive in environments that encourage active participation, debate, and exchanging ideas with others. Jahanbakhsh (2012) found that both visual and verbal learning styles showed a positive and statistically significant influence on the academic performance of students in the empirical sciences.

The sequential or global approach is yet another spectrum that explores a student's learning style. They examine the steps taken in understanding given learning and teaching content (Battalio, 2009). Sequential style refers to students learning in small,

incremental steps, paying close attention to study material, and accordingly having a linear progression during the learning process (Kim et al., 2019). They thrive in structured environments where concepts are presented in a logical order, building upon each other. These learners are methodical, and they prefer to follow a clear sequence to understand a subject fully. Sequential learners excel in tasks that require attention to detail and accuracy (Liu & Liu, 2023). They may benefit from organised outlines, structured lesson plans, and systematic learning materials.

Others who prefer a global style learn material almost unknowingly without seeing the connections but subsequently finding connections between different areas (Huang et al., 2022). They also tend to solve complex problems. Global learners prefer grasping the big picture and understanding the overall context before delving into the details. They tend to see connections between various concepts and are skilled at thinking holistically. Global learners enjoy exploring the broader implications and relationships between ideas (Benabbes et al., 2023). They may find traditional step-by-step learning methods tedious and prefer a more intuitive and immersive approach to learning. Jiraporncharoen et al. (2015) found a sequential learning style to be superior in aiding students to realise their academic goals successfully.

2.7.3 Intelligence, Cognitive Ability and Academic Performance

Another important stream of literature argues that the most important determinant of academic performance is more innate and inherent to a student. Intelligence and cognitive ability have consistently been proven to be strong predictors of academic performance (Deary et al., 2007; Furnham et al., 2003; Peng & Kievit, 2020). Individuals with higher cognitive abilities, such as problem-solving skills, memory retention, analytical thinking, and information processing speed, are better equipped to grasp and understand complex academic concepts (Rohde & Thompson, 2007). Their ability to acquire and retain knowledge efficiently enables them to excel in various subjects and perform well on academic assessments. Intelligence also plays a crucial role in critical thinking and logical reasoning, allowing students to make connections between different topics and approach learning with a deeper level of understanding (Heaven & Ciarrochi, 2012). Several studies have shown that intelligence and cognitive ability manifest as

resourcefulness, adaptability, proficient self-control skills, academic self-efficacy, and a genuine interest in knowledge acquisition, which prime a student to gain consistently high grades in a given teaching and learning context (Kennett & Keefer, 2006; Matešić, 2015; Morales-Vives et al., 2020).

Pluck et al. (2016) expound that the proficient execution of the right prefrontal-neurocognitive functions is responsible for enabling a student to absorb the information provided during the learning process effectively, which leads to positive educational outcomes. Moreover, higher cognitive abilities contribute to effective study strategies and time management, enabling students to organise their learning process and optimise their efforts. Students with stronger cognitive abilities often exhibit higher levels of academic motivation and perseverance, as they are more likely to experience success and positive reinforcement in their academic endeavours (Khine & Areepattamannil, 2016).

2.7.4 Environmental Factors and Academic Performance

However, researchers like Zakaria et al. (2011) and Hammer et al. (2018) postulate that social and environmental factors offer a more robust lens in explaining variations in student academic performance. The home environment plays a pivotal role in shaping a student's academic performance and overall educational outcomes. A supportive and nurturing home environment can provide the necessary foundation for a child's intellectual and emotional development (Mimrot, 2016). Parents or guardians who actively engage in their child's education, express interest in their academic progress, and provide a stimulating and encouraging atmosphere can foster a positive attitude towards learning (Chowa et al., 2013).

A home that values education sets high expectations and prioritises a healthy work-life balance can instil discipline and motivation in the student (Mimrot, 2016). Additionally, Mimrot (2016) indicate that a home environment characterised by effective parental control, protectiveness, conformity, rewards and nurturance can significantly impact a student's ability to engage in independent learning and complete assignments effectively. Conversely, a home environment marked by instability, lack of support, or limited access to educational resources can create barriers to academic success (Cheung et al., 2020). Stressful family dynamics, financial hardships, or inadequate parental involvement may

result in decreased focus, self-esteem issues, or reduced interest in academics (Camacho-Thompson et al., 2016). Recognising the importance of the home environment in shaping a student's academic journey is essential for educators and parents alike, as it highlights the significance of creating a nurturing and conducive home setting to support the student's educational growth and achievement (Li et al., 2019).

Arguably, the most important factor that influences academic performance is a student's teaching and learning environment. The school environment is a critical factor in shaping a student's overall learning experience and academic success. A positive and conducive school environment can foster a sense of belonging, motivation, and engagement among students (Cohen et al., 2021). A safe and supportive school culture promotes healthy social interactions, emotional well-being, and a sense of security, enabling students to focus on their studies without unnecessary distractions (Cuesta et al., 2021; La Salle, 2018). Effective school leadership, competent teachers, and collaborative staff contribute to a nurturing learning environment that encourages open communication and mutual respect (Mulyani et al., 2020).

Moreover, well-equipped classrooms, modern educational resources, and access to technology enhance the learning experience and provide students with opportunities for exploration and hands-on learning (Eleazer & Scopa Kelso, 2018). A diverse and inclusive school environment helps students develop empathy, tolerance, and understanding of different cultures and perspectives, preparing them to thrive in an interconnected world (McMahon et al., 2016). By fostering a positive and stimulating school environment, educators can inspire a passion for learning, cultivate critical thinking skills, and empower students to reach their full potential academically and personally (Izaguirre et al., 2022).

The external environment within which a student lives is also of critical importance. A supportive and engaged community can provide valuable resources and opportunities for educational growth (Jenson et al., 2018). Community involvement in education, such as volunteer programs, mentoring initiatives, and after-school activities, can supplement classroom learning and enrich students' experiences. (Lee et al., 2008). A strong sense of community pride and identity can motivate students to excel academically as they feel

a sense of responsibility to represent their community positively (Houser, 2014). Additionally, community partnerships with schools can lead to improved access to extracurricular programs, internships, and vocational opportunities, broadening students' horizons and career aspirations (Kirby & DiPaola, 2011). Conversely, a community grappling with socioeconomic challenges, crime rates, and limited resources may pose obstacles to academic success (Gimenez & Barrado, 2020; Kiang et al., 2013). Students from disadvantaged communities may face additional stressors and may lack access to essential resources, which can impact their focus, self-esteem, and overall well-being (Kuldas et al., 2014).

2.7.5 Resilience and Academic Performance

Another factor that has been found to contribute to a student's academic success and achievement positively is resilience. Students who possess resilience are better equipped to navigate the ups and downs of the academic journey with a positive outlook and determination (De la Fuente et al., 2017). When faced with academic hurdles, resilient students view them as opportunities for growth rather than insurmountable obstacles. This mindset fosters a sense of optimism and self-efficacy, enabling them to persist in the face of academic challenges (Sabouripour et al., 2021). Resilient students are more likely to seek support when needed, whether from teachers, peers, or family, and they are open to constructive feedback as a means of improvement (Odena & Burgess, 2015). They understand that setbacks are a normal part of the learning process and are not deterred by initial failures. Instead, they view failures as learning experiences and use them as stepping stones towards future success (Sakız & Aftab, 2018). This adaptive approach to challenges empowers resilient students to maintain focus, motivation, and commitment to their studies, which, in turn, leads to improved academic performance (Kwek et al., 2013). Furthermore, resilience enhances students' ability to manage stress effectively, allowing them to stay composed and perform better during exams or high-pressure situations (Ríos-Risquez et al., 2016). They are less likely to succumb to academic stress and burnout, thus maintaining a healthy balance between academics and personal well-being (Berdida & Grande, 2022).

2.8 Measuring Academic Performance

There is a panoply of tools and techniques that educators employ to assess the academic performance of their students. Measuring academic performance serves a critical purpose in every student's academic journey (Kairuz et al., 2016). By quantifying and analysing academic performance, educators, parents, and policymakers can gain valuable insights into the effectiveness of teaching methods, curriculum design, and overall educational systems (Abío et al., 2017). Measuring academic performance allows for identifying areas of strength and weakness in students' learning, enabling targeted interventions and support to enhance their educational journey (AdrianChin et al., 2019). Perhaps the most common form of academic performance assessment is the Grade Point Average (GPA). Grades are typically assigned based on a student's performance in various assessments, such as tests, quizzes, assignments, and class participation (Beatty et al., 2015). Grade Point Averages, on the other hand, provide an overall average of a student's grades reflecting their cumulative performance over a specific period (Gašević et al., 2013).

While this method offers a clear, easy-to-understand evaluation of a student's achievement over time, it fails to represent their academic abilities, growth, and potential fully (Reynolds, 2015). Grading is also quite subjective, with the methods for evaluation sometimes differing widely between academic institutions and educators (Solomon & Piggott, 2021). The level of importance most schools assign to their students' GPAs has also been found to cause stress and anxiety among students, potentially impacting their mental well-being and overall learning experience (Eum & Rice, 2011). Gagné (2005) posits that GPAs are a one-dimensional academic evaluation paradigm that oversimplifies a student's academic capabilities while neglecting non-academic skills and talents. On the other hand, although GPAs offer adequate insight into a student's academic ability and serve as an essential control mechanism for assessing school accountability, it is not a perfect measure (Huang et al., 2019; Wiliam, 2010).

Yet another tool used to assess academic performance is standardised tests. These are designed to measure academic performance using uniform criteria and scoring methods across a broad population of students (Zuckerman et al., 2018). They aim to provide an

objective and standardised way to assess students' knowledge, skills, and abilities in various subjects. One of the key advantages of standardised tests is their ability to provide a consistent and reliable measure of student performance, enabling educators and policymakers to compare academic achievement across schools, districts, and regions (Cliff, 2015). This makes them comparable across seemingly heterogeneous contexts and grants them the ability to use scalable measures to assess trends and gaps in education frameworks. However, like GPAs, standardised tests also offer a narrow outlook on a student's academic performance (Gagné, 2005). In this study, academic performance was determined using the average academic score obtained from four core subjects -Mathematics, English, Social studies and Integrated science. Refer to Section 4.9 (Chapter 4).

2.9 Resilience and Academic Performance of Adolescents

For a child to be considered resilient, he or she must demonstrate functional adequacy (the preservation of functionality regardless of any interfering emotionality) as a standard of resilient conduct when confronted with stress. Werner (1989), on the other hand, explained the concept as the ability of children to deal successfully with the intrinsic pressures of their limitations (e.g., developmental imbalances) as well as external stressors (e.g., sickness, significant losses). The adolescents who possess this ability can seamlessly and swiftly overcome hardships, setbacks and challenges in their personal and professional lives and are regarded as resilient (Sarwar et al., 2010).

Resilient adolescents stand to benefit in several ways, one of which is enhanced academic performance. Academic performance is one of the most extensively researched indicators of school adjustment throughout the years (Mateos et al., 2020). This concept is often described as a student's degree of knowledge in a particular area or topic compared to the norm for their class (academic level) and age (Jimenez, 2000). Academic performance can also be qualitatively determined using self-perceived evaluation (Fernandez-Lasarte et al., 2019). In any case, it is a complex concept determined through a host of factors such as socio-environmental influences, cognitive and motivational factors, and methodological variables (Rubio, 2009).

The link between resilience and academic performance has received relatively little attention and concern in the literature (Mateos et al., 2020). Nonetheless, a number of studies have explored the subject and produced some rather fascinating results. Sandin-Esteban and Sanchez-Marti (2015) found that young immigrants who felt they were doing well in school (or achieving high academic performance) had substantially greater resilience.

Tipismana (2019), on the other hand, discovered that resilience was a predictor of perceived academic performance among young adults dichotomously (both directly and indirectly) via coping. Similarly, Rodriguez-Fernandez et al. (2019) observed a link between resilience and academic performance, which had school engagement and subjective wellness as mediators.

Through resilience, students gain the information, talents, and skills that enable them to surmount challenges in their present academic environment and confront an unpredictable future with optimism, inventiveness, and a positive attitude (Bryan, 2005). Additionally, resilient students possess the competence to control their emotions in the face of an unexpected or unpleasant circumstance. They also set goals effectively, demonstrate adequate commitment, and make decisions optimally as a part of their daily routine, which insulates them from the quotidian chronic stressors they come across (Shean, 2015). According to Noble and McGrath (2016), the psychological factor of resilience has been identified as a significant influence in both the personal and school-related elements of adolescents' psychosocial adjustment.

Although this trait or competence of resilience is universally essential to all students, several researchers have emphasised examining how adolescents cope with the stressors inherent in their teaching and learning environment (Agasistii et al., 2018; Malhi et al., 2019; Mampane, 2020; Mirza & Arif, 2018). The interest in this line of enquiry stems from the fact that adolescence adds an extra layer of complexity to the resilience discourse. Several physiological and social changes, as well as cognitive, physical and emotional growth, characterise the adolescent stage of an individual's life, which often brings with it a host of challenges and opportunities (Bluth et al., 2018). Developing the requisite coping skills and competencies to deal with these difficulties, such as enhancing

resilience and being receptive to new, transformative experiences, may help such individuals progress through this stage of development with greater ease and improve the competency needed to achieve certain life goals (Barger et al., 2017; Skrove et al., 2013).

According to March-Amengual et al. (2022), the attainment of a positive and optimistic psychological state through resilience may have a more significant impact, as opposed to negative psychological notions, when explaining academic success or performance. This allows a student to cope effectively with the adversities present within the teaching and learning environment. This skill is essential for all students to have because literature has identified a myriad of barriers that preclude them from obtaining their academic goals and progressing to the next level of their education in regions all over the world (Ayala & Manzano, 2018; Christou, 2012). Most students who perform poorly academically are confronted with the challenge of failure. These students are predisposed to particular risk elements. Notable among them are low socioeconomic status, perplexing behaviour, destructive structural family features, poor fitness and adverse happenings in life (Kuldas et al., 2014). Having low socioeconomic status poses a substantive risk, which has been proven to be an effective and dependable pointer that indicates challenges in the life of a young adult. This can lead to absenteeism, idling in school and school dropout (Mampane, 2020; Mirza & Arif, 2018), which negatively influence a student's ability to realise their academic goals and objectives successfully.

2.10 Resilience and Academic Performance Within the Ghanaian Context

In Western nations, the topic of resilience in high-risk adolescents has been extensively investigated to understand better the protective characteristics that enable underprivileged youths to excel in academic settings and other areas of life despite adversity. From a sociocultural perspective, literature remains limited in Sub-Saharan Africa, particularly in Ghana; many researchers have failed to acknowledge the culturally engrained interpretations and expressions of resilient attributes and protective variables among oppressed and disadvantaged individuals and social collectives in the country (Abukari, 2010). As a result, resilience in Ghanaian students goes undetected or is obscured (Akbar, 1984). This presents a rather troubling outlook for the country's future regarding educational growth and development.

Despite the remarkable socio-economic growth, the country has experienced in recent years, Ghana, like many other nations on the African continent, has been grappling with improving an education sector fraught with several constraints relating to inadequate access to education, primarily among females and rural people, as well as abysmally poor quality of learning (Marchetta & Dilly, 2019). Due to limited resources, African governments have been unable to address these problems adequately, leaving students to fend for themselves; children and adolescents tend to experience the brunt of these challenges (Kerkulah, 2020).

For example, female students have been regarded as the youth group most susceptible to risk factors in Sub-Saharan Africa due to the patriarchal orientation of most African countries and the practice of gender bias in academic institutions (Amponsah et al., 2014). Furthermore, disadvantaged and marginalised adolescents from low-income households and localities are frequently described as vulnerable without considering the intangible factors and assets that can help them become resilient. However, some recent research on Ghanaian youth's academic performance has recognised protective variables that include both individual and societal characteristics, such as positivity, strong familial relationships, unified social principles and values, self-esteem beliefs, and school dedication, all of which influence the academic success of these individuals (Abukari, 2010; Chowa et al., 2013).

2.11 Conclusion

In this chapter, a comprehensive examination of resilience, its conceptualisation, and its intricate relationship with academic performance, particularly within the context of adolescence and the Ghanaian setting, was undertaken. The exploration began with the conceptualisation of resilience, understanding it as the ability to bounce back from adversity. The various risk factors that pose challenges to adolescents were dissected alongside protective factors that bolster their resilience. Furthermore, the essence of adolescence was scrutinised, recognising it as a critical developmental phase marked by numerous transitions and challenges. Within this framework, an investigation was conducted into how resilience manifests in adolescents, particularly concerning their academic performance.

A thorough analysis ensued regarding the multifaceted nature of academic performance, considering antecedents such as personality traits, learning styles, cognitive abilities, and environmental influences. The role of resilience as a significant predictor in academic achievement, alongside these factors, was emphasised. Moreover, methodologies for measuring academic performance were reviewed, ensuring a nuanced understanding of how resilience impacts this crucial aspect of adolescent development.

Finally, the exploration narrowed down to the specific context of Ghana, recognising the unique socio-cultural factors that shape resilience and academic performance within this milieu. In conclusion, this chapter has laid a robust foundation for understanding the interplay between resilience and academic performance, providing insights that are vital for both theoretical frameworks and practical interventions aimed at enhancing the educational outcomes of adolescents, particularly within the Ghanaian context.

CHAPTER THREE: THEORIES OF THE STUDY AND CONCEPTUAL FRAMEWORK

3.1 Introduction

In this chapter, the primary theoretical perspectives and underpinnings that this study will employ are presented. Two theories will be examined: the resilience theory and the self-determination theory. Since this study examines the interplay between resilience and academic performance of junior high school students in Ghana, both theories will produce invaluable insights into the endogenous and exogenous factors that influence educational success within the given context. By delving into the resilience theory, I aim to evaluate how students can overcome adversity and challenges in the educational system, ultimately affecting their scholastic achievements. On the other hand, the self-determination theory will shed light on the motivational factors driving students in their pursuit of academic success, providing a comprehensive perspective on the factors influencing their performance.

The chapter begins with an exploration of each of the employed theories. I will critically assess the foundations and key principles of the self-determination theory (Section 3.2) and resilience theory (Section 3.3), aiming to provide a clear and in-depth understanding of their applicability to the study. Additionally, in these sections, I will examine existing research and empirical evidence that support and complement these theoretical frameworks. This critical evaluation will set the stage for the subsequent sections of the chapter, which will delve into the primary facets of each theory. For the self-determination theory, the three primary dimensions are autonomy (Section 3.2.1.1), relatedness (Section 3.2.1.2), and competency (Section 3.2.1.3). Resilience theory, on the other hand, will employ a three-pronged framework for examining the construct: personal characteristics (Section 3.3.2.1), family support system (Section 3.3.2.2), and external environment (Section 3.3.2.3).

Section 3.5 explores the theories' application to the present study (conceptual framework). Here, I will detail how both theories aided in examining the primary themes and dimensions explored in this study. This section will focus on the practical

implementation of resilience theory and self-determination theory in the context of my study. I will outline how these theories helped me to investigate and analyse the primary themes, mainly resilience and academic performance, and the influence they exerted on each other. Specifically, I will highlight the key dimensions within each theory that aligned with the overarching objective of this study, illustrating how they provided a framework for understanding the factors that influenced the interplay between resilience and academic achievement among public junior high school students in Ghana.

Section 3.6 demonstrates the rationale for choosing the two theories. Here, I will reiterate the critical significance of selecting the resilience theory and self-determination theory for the study. I will emphasise how these theories offer a comprehensive and well-rounded approach to understanding the multifaceted aspects of the research, considering both individual and environmental factors. Furthermore, I will discuss how these theories have been successfully applied in previous studies and research contexts, underlining their relevance to the specific educational landscape of public junior high school students in Ghana. This section will reinforce the justification for my theoretical choices and lay the groundwork for the subsequent chapters, where I will operationalise these theories to explore the interrelationship between resilience and academic performance. The final section concludes the chapter.

3.2 Self-Determination Theory

The Self-Determination Theory (SDT) is a macro-level theory of human motivation that was developed by Ryan and Deci in 2002. It suggests that to engage in autonomous (independent), self-directed activity, three fundamental psychological demands must be met (Ryan et al., 2021; Ryan & Deci, 2019). To be more specific, it views autonomy, competence, and relatedness as essential components of an individual's capacity for continuing external and internal control of behaviour, psychological development, and the general ability to achieve a feeling of well-being in their lives (Ryan & Deci, 2002, 2019). This theory proposes that individuals exhibit unique types of motivation that may be anticipated based on the three fundamental requirements mentioned above. A primary observation that can be drawn from several studies and intellectual inquiries that have employed this theory is that the SDT possesses considerable heuristic strength and

capabilities (Mario, 2019; McEown & Oga-Baldwin, 2019; Ryan et al., 2018). In fact, it is clear how adhering to a small number of fundamental theoretical principles may assist in the organisation and comprehension of motivational actions, processes, behaviours, and determinants and result in a wide range of life circumstances and contexts.

The term autonomy refers to a person's desire to behave in a manner that is imbued with a sense of agency or ownership and a sense of personal psychological freedom (Ryan & Deci, 2002). The requirement for competence is that a person must continue to improve their abilities and work toward becoming more in control of their mental state, actions, and surroundings (Ryan & Deci, 2002). The term relatedness pertains to the need of an individual to have the sensation of being cared for, linked to, and feeling secure with other people in their community (Ryan & Deci, 2002). According to the self-determination theory (SDT), the degree to which a person's actions and behaviours are motivated by autonomous, self-initiated forms of motivation and, in turn, their level of physical or psychological well-being may be predicted by the degree to which these three requirements are satisfied (Ryan et al., 2021; Vansteenkiste & Ryan, 2013). The findings that have been reported in several articles that have used this theory highlight the fact that the fundamental motivational processes that are postulated by SDT operate comparably across a wide variety of domains, including peer interactions (Fisher et al., 2019), parenting (Scarduzio et al., 2018), professional training (Mikhailova, 2021), career planning (Sheldon et al., 2019), education (McEown & Oga-Baldwin, 2019), formal and informal relationships (Li et al., 2021), physical activity and exercise (González-Cutre et al., 2018), health (Migliorini et al., 2019), organisational management (Olafsen & Deci, 2020), environmental issues (Gilal et al., 2019), and psychotherapy (Ryan et al., 2018).

3.2.1 The Dimensions of the Self-Determination Theory

The SDT is a three-pronged model that focuses on intrinsic motivation, psychological needs, and external factors influencing human behaviour and well-being. Autonomy, relatedness, and competence all play a critical role in determining an individual's level of motivation.

3.2.1.1 Autonomy

According to the SDT, autonomy is an essential facet of an individual's motivational processes. Scholars and practitioners alike have comprehensively explored autonomy within the context of the SDT and have varying views on the operationalisation of the concept. Some academics believe that autonomy refers to an individual's perception of being in command of their own behaviours and decisions (Krettenauer & Curren, 2020; Toffoli, 2020; Lou et al., 2017), while others contend that it also encompasses the liberty to select and work toward personally significant objectives as one's primary focus in life (Li & Hein, 2019; Ryan et al., 2018). No matter how one chooses to define it, autonomy is universally acknowledged to be one of the most important aspects in the process of motivating action (Ryan & Deci, 2020; Ulstad et al., 2018). People who have a feeling of autonomy in their lives are thought to be more likely to be intrinsically driven, to experience better levels of happiness, and to have more tenacity in working towards their objectives (Frielink et al., 2018; Vasconcellos et al., 2020). It is necessary to have a grasp of and to promote autonomy actively to encourage motivation and achieve the outcomes that are sought.

The term "intrinsic motivation" refers to the internal drive or personal desire that drives individuals to engage in an activity or pursue a goal for the inherent satisfaction, pleasure, or fulfilment it brings, as opposed to doing so for the purpose of obtaining external rewards or incentives (Howard et al., 2020). In this sense, autonomy offers the essential basis for what is needed to motivate an individual to work toward the achievement of these objectives. People often experience an increase in their intrinsic motivation when they have the perception that their actions are self-determined and in accordance with their values and desires (Baker & Goodboy, 2018). This occurs when they believe they have the autonomy to make their own decisions and pursue their interests. Because people are driven by their real interests and a sense of ownership over their actions, having this level of agency can lead to a more profound and prolonged engagement in activities (Li et al., 2018; Zhou & Gong, 2019). In a similar vein, having some degree of control over one's own actions and behaviours is essential to one's level of self-motivation and success in the process of achieving one's goals (Kalajas-Tilga et al., 2020). It gives

people the ability to determine their goals based on their passions and beliefs rather than having those goals predetermined for them by pressures or expectations from the outside world (Ryan & Deci, 2020). Setting one's own goals develops a sense of ownership and commitment, which may be extremely helpful in maintaining one's effort and endurance in the face of obstacles. People are more likely to feel a sense of personal agency and fulfilment, which, in turn, contributes to their overall well-being, when they are given the opportunity to select and modify their goals per the changing interests and requirements they are confronted with throughout their lives (Grund & Tulis, 2019; Neufeld, 2021). Thus, autonomy not only provides fuel for one's inner drive but also plays a vital part in defining the path that one's dreams and undertakings will take and ensuring that they will be sustained.

According to Sun (2018), the degree of autonomy an individual has plays a significant role in determining numerous performance outcomes. For instance, in the workplace, one's level of autonomy might have a considerable impact on their level of job performance (Khoshnaw & Alavi, 2020). Employees often experience better levels of job satisfaction as well as enhanced levels of motivation when they have a greater sense of autonomy in the tasks that they undertake (Jing et al., 2021). They have the sense that they are empowered to take responsibility for the duties that have been given to them, to make decisions, and to be creative in the way that they solve problems. This, in turn, can lead to improvements in productivity as well as general performance on the job (Matijaš et al., 2018). Employees who are given the responsibility of managing their own work autonomously are more likely to take the initiative and come up with creative solutions to problems, both of which can have a good influence on the organisation's overall performance (Shu et al., 2022).

Concerning education, autonomy may have a comparable effect on a student's overall academic achievement. Students who are given a greater degree of autonomy in their educational processes typically demonstrate higher levels of engagement and motivation in their studies (Huéscar Hernández et al., 2020). They have the freedom to investigate subjects that pique their interest, which can result in a more profound comprehension of the material being studied. Students also have a greater chance of developing critical

thinking skills, problem-solving ability, and a growth mindset when they are encouraged to take ownership of their learning and when they are given more responsibility for their education (Martinek et al., 2022). These characteristics can help one achieve higher academic success and develop a passion for learning that will last a lifetime. In addition to this, the concept of autonomy is extremely important in the field of healthcare. Patients who are involved in the decisions about their treatment and who are given a say in the healthcare choices that they are presented with typically have better outcomes regarding their health (Moilanen et al., 2020). They are more likely to stick to treatment regimens, take charge of their health management, and report higher levels of satisfaction with the care they have received (Nakanishi et al., 2019).

3.2.1.2 Relatedness

On the other hand, relatedness emphasises the basic human requirement for connection and participation in social activities (Stanton et al., 2020). Along with autonomy and competence, it is one of the most important aspects of the SDT. Having a sense of belonging, being attached to others, and having healthy connections with others are all aspects of relatedness (Mario, 2019). This desire for social connection encompasses many facets of life, such as the family unit (Dean et al., 2021), friendships (Alivernini et al., 2019), love connections (Ryan & Ryan, 2019), and engagement in one's community (Dattilo et al., 2017). Humans are inherently gregarious creatures. As such, there is an innate need for social interaction and support that fulfils not only emotional and psychological needs but also contributes to our overall well-being (White & Jha, 2018). These connections offer a sense of purpose and meaning in life, and they play a significant role in reducing feelings of loneliness and isolation. Moreover, relatedness can provide a support system during challenging times, offer opportunities for personal growth and self-discovery, and foster a sense of unity and shared identity, ultimately enhancing the quality of our lives (Ntoumanis et al., 2020).

Like autonomy, relatedness is invaluable in promoting intrinsic motivation within an individual. It provides the tools that enable humans to explore the vast spectrum of their emotional and social experiences, ultimately contributing to their personal growth and well-being (Roth et al., 2019). Relatedness empowers individuals to connect with others

on a deeper level, fostering empathy, compassion, and the ability to understand and share in the emotions of those around them (Gonzalez-Mendez & Díaz, 2021). Through meaningful relationships, people can navigate the complexities of human emotions and social dynamics, leading to increased self-awareness and emotional intelligence (Trigueros et al., 2019).

Relatedness is particularly relevant in the context of psychological well-being. When individuals feel connected to others, whether it is through close friendships, supportive family relationships, or a sense of community, it contributes to their overall happiness and life satisfaction (Ryan & Deci, 2020). These bonds provide emotional support, empathy, and a network for sharing life experiences, which can enhance an individual's sense of purpose and fulfilment. When promoting motivation by nurturing a strong sense of relatedness, individuals are more likely to experience reduced stress and emotional well-being (Ryan & Deci, 2022). The emotional support and understanding that come from these connections act as a buffer against the challenges and hardships of life, providing a source of resilience and strength (Trigueros et al., 2019). Moreover, a sense of belonging and shared experiences within a community or social network can inspire individuals to pursue common goals and causes, fostering a deeper sense of meaning and motivation in their lives (Millner et al., 2019). In essence, relatedness not only enhances psychological well-being but also serves as a catalyst for intrinsic motivation, which drives individuals to engage more actively in life, pursue their aspirations, and contribute positively to the well-being of both them and those around them.

3.2.1.3 Competence

Within the context of Self-Determination Theory (SDT), competence refers to the fundamental human need to feel capable and effective in one's actions and endeavours (Šakan et al., 2020). It reflects an individual's belief in their ability to master tasks, solve problems, and achieve desired goals. Competence is a pivotal element in understanding human motivation and behaviour, as it plays a crucial role in shaping an individual's self-esteem, self-efficacy, and overall well-being (Teixeira et al., 2020). When individuals perceive themselves as competent in a particular domain, they are more likely to experience intrinsic motivation (Alamri et al., 2020). This intrinsic motivation arises from

a sense of mastery, as individuals are driven by their internal desire to improve their skills and knowledge. It leads to a deeper engagement in activities, increased perseverance in the face of challenges, and a heightened sense of accomplishment (Jeno et al., 2018).

Conversely, when individuals feel incompetent or doubt their abilities, it can decrease intrinsic motivation. These feelings of inadequacy can demotivate individuals, potentially causing them to avoid tasks or give up prematurely (White et al., 2021). Therefore, the need for competence is closely tied to an individual's motivation and well-being, as it influences their choices, effort, and persistence in various life domains, including education, work, sports, and personal hobbies (Ryan & Deci, 2022).

Competence reinforces motivation by serving as a foundational building block for self-determination and personal growth (Ryan & Deci, 2020). It involves an individual's belief in their ability to succeed in a specific area. Individuals with confidence in their skills and capabilities are more likely to approach challenges positively (Messineo et al., 2019). This self-assuredness motivates them to take on new tasks and empowers them to persevere through difficulties. The confidence in their competence acts as a driving force, propelling them forward in their pursuits. The pursuit of competence often leads to a mastery orientation, where individuals focus on improving their skills and understanding rather than seeking external rewards or approval (Bureau et al., 2021). This intrinsic motivation encourages individuals to engage in activities because they genuinely enjoy them and want to develop their competence (Ryan et al., 2021). In this way, competence reinforces motivation by making the journey of self-improvement and mastery inherently rewarding.

Even though the SDT has been modified quite a few times throughout its existence for example, by Deci (1975, 1980), and Deci and Ryan (1980, 1985, 2000, 2008), the primary focus of the theory continues to be on the role that the dialectic between a person and their environment plays in the fulfilment of their primary psychological needs. It is important to emphasise that the SDT postulates that what really counts is not the environment in itself but rather what the environment signifies in terms of its ability to meet people's functional requirements for psychological support (Ryan et al., 2021). Therefore, a person's level of motivation toward a certain job will be at its highest level if the surrounding environment makes it possible for them to experience sensations of

competence, autonomy, and relatedness (Ryan & Deci, 2019). It is interesting to note that a study conducted by Sheldon and Niemiec (2006) demonstrated that the best results may be achieved when all three demands are balanced (i.e., equally satisfied).

According to the researchers who subscribe to the SDT, human motivation may be seen as being on a continuum that ranges from autonomous (i.e., self-directed, with the goal of genuine self-expression) to regulated, e. g., compelled by exogenous or extrinsic forces (Ryan & Deci, 2018). Along this continuum, Ryan and Deci (2018) proposed four separate forms of motivation: intrinsic, extrinsic, behavioural, and cognitive. At one extreme, an individual's desire to engage in a certain activity derives entirely from the individual's intrinsic desire to do so because they find pleasure in the activity itself (Sun, 2018). On the other hand, an individual's behaviour can be regulated completely by external factors such as the desire to get a reward or the desire to avoid a penalty. Introjected regulation, identifiable regulation, and integrated regulation can be found along the continuum between these two extremes of the spectrum (Ryan & Deci, 2020). These different forms of motivation can be separated from one another based on the degree to which they enable the internalisation of behaviour that is driven externally.

Positive occupational results are linked to the presence of more autonomous types of motivation, such as intrinsic motivation and well-internalised forms of external regulation, such as integrated regulation and identified regulation by external entities (Van den Broeck et al., 2021). According to the SDT, the presence of more autonomous forms of motivation will be predictive of enhanced well-being, higher quality performance at work, and more persistence in the execution of work activities (Deci et al., 2017). There is empirical support for this assertion: researchers have discovered that autonomous forms of motivation favourably predict work performance, contentment, and commitment; safeguard against the stress of high job expectations or demands; and adversely predict burnout, absenteeism, and exhaustion (Deci et al., 2017).

3.3 Resilience Theory

The concept of resilience has been described in a variety of ways, including "bouncing back," "recovering," "protective factors," "individual attributes," and "good outcomes" (Kampa et al., 2018; Wibisono & Fatimah, 2022; Young et al., 2018). However, at its core,

the construct describes the capacity to respond effectively in the face of adversity and stress (Masten et al., 2021). Throughout history, the concept of resilience has been considered to refer to a pattern of coping that resists the occurrence of unfavourable results or outcomes (Lerner, 2006; Richardson, 2002; Wang et al., 2015).

The basis of resilience theory, according to Masten et al. (2021), is founded on the fact that some adolescents thrive and achieve positive results despite adversity. Masten stated that the student's internal assets of strengths, temperament, and social skills were used to determine resiliency. Internal assets emphasise the development of physical, intellectual, emotional, and psychological resources to assist teenagers in dealing with and overcoming adversity. This perspective on resilience is based on previous psychopathology research (Cicchetti & Garmezy, 1993). The focus of resilience has shifted away from analysing psychopathology and toward emphasising how adversity promotes resistance and growth (Garmezy, 1991). The fact that it is used in situations that are threatening and stressful demonstrates the value and significance of this concept to the individual. In addition, the concept of resilience has been used in wider societal contexts as well as on the level of communities as a response to catastrophic incidents and tragic occasions (Ishihara, 2019; Landau et al., 2008; Masten & Motti-Stefanidi, 2020).

Both the personal characteristic-based and process-based conceptualisations of resilience place a significant emphasis on the idea of risk as well as the constructive response to adversity (Autin et al., 2021), while outcome-based definitions of resilience place a primary emphasis on successful adaptation in the aftermath of adversity (Della Bosca et al., 2020; Rutter, 2012). The individual, as well as the individual's perception of what constitutes hardship and what defines a favourable outcome, plays a role in the interaction between adversity and positive outcomes. What is a potentially harmful circumstance or danger for one person might not be the same thing for another person. Additionally, the individual contributes certain specific variables and predispositions that may either be favourable or negative, and these elements interact with both the potential for a successful outcome and the potential for adverse circumstances (Malhi et al., 2019).

Another point to consider is that each person has a unique perspective on what constitutes a challenge and what constitutes a successful conclusion or outcome. Therefore, what exactly do we mean when we talk about adversity, good outcomes, and adaptation? According to one definition, adversity is any unfavourable occurrence in one's life or set of circumstances that is quantitatively related to adjustment problems (Gee, 2021). As a result, the definition of adversity provided by Luthar and Cicchetti (2000) designates a certain statistical magnitude. A similar approach was employed by Matore et al. (2020). Alternatively, some other studies have defined adversity without regard to a statistical threshold, defining adversity as any suffering that is related to difficulty, or challenge that is associated with a challenging situation (Hays-Grudo et al., 2021; Munoz et al., 2022). However, some scholars have adopted a more comprehensive definition of adversity, expanding its scope to include not just the major bad life events or adversities but also the more general setbacks that we experience in our day-to-day lives (Davis et al., 2009; Hamby et al., 2021).

Moving on, what is denoted by a positive outcome or adaption in the context of resilience? Traditionally and still commonly utilised today is the conceptualisation of a positive outcome or adaption equating to an individual retaining their mental health and not succumbing to a mental disorder or maladaptive response after being challenged by adversity or risk (McLarnon et al., 2021; Liu et al., 2020). This conceptualisation is representative of an outcome-based definition of resilience. In the context of resilience being a personal characteristic or process, a positive outcome or adaptation would be an individual maintaining, regaining, or surpassing their prior level of functioning before exposure to the risk or adversity (Vella & Pai, 2019). Bonanno (2004) proposed that resilience is the ability to “maintain a stable equilibrium” in the face of adversity (p. 20).

Bonanno (2004) reports that resilience is the most frequent or modal outcome in response to adversity. However, Infurna and Jayawickreme (2019) strongly refute Bonanno's (2004) assertions that resilience is common and is the modal outcome. Rather, Infurna and Luthar (2016) assert that it is inappropriate to comment on the rates of resilience. Ahern et al. (2008) define resilience as a personal characteristic that is “adaptive stress-resistant personal quality” (p. 32). Alharbi et al. (2019) define resilience as a personal

characteristic, which is the personal qualities that enable one to thrive in the face of adversity. Similarly, proponents of trait resilience define resilience as a personal trait that helps individuals cope with adversity and achieve good adjustment (Ayed et al., 2018). Although personal traits are undoubtedly an important facet of the resilience construct, there exists a host of other external factors that could either inhibit or enhance its manifestation (Goodman et al., 2020; Manomenidis et al., 2018).

3.3.1 Waves in Resilience Research

The first wave of research on resilience investigated "what" inquiries, with the primary focus being determining the elements related to resilience (O'Dougherty-Wright et al., 2013). The identification of these elements was accomplished via the use of both person-focused and variable-focused methodologies. The person-focused technique was used to compare people who were resilient to people who were not when they were put in the same circumstance (Vella & Pai, 2019). This allowed the researchers to establish the characteristics of resilient people. The variable-focused method examined the connections between the traits of individuals and the circumstances in which they lived that led to resilient results despite the presence of adversity (O'Dougherty-Wright et al., 2013). Therefore, the first wave of research concentrated on the individual and their environment.

This line of inquiry produced descriptions of the phenomenon known as resilience, which included characteristics, personality traits, and supportive external conditions that were associated with more favourable outcomes (Masten & Obradović, 2006). Consequently, during this initial round of study, both protective and promotive characteristics that were related to resilient outcomes were found. It was determined what aspects of an individual, their family, their neighbourhood, and their cultural and social background influenced the underlying construct (O'Dougherty-Wright et al., 2013). For example, having a calm temperament and a pleasant affect are two qualities of children that have been discovered to relate to resilient outcomes (Condly, 2006). This initial round of study resulted in the generation of exhaustive lists of the elements related to resilience following an encounter with adversity or danger.

The purpose of the second wave of research on resilience was to study methods that might be used to acquire the protective elements discovered in the first wave (Mizuno et al., 2016). As a result, the focus of the research switched from questions about "why" and "what" to questions concerning "how" and the processes involved in producing elements that promote resilience and guard against risk or adversity (O'Dougherty-Wright et al., 2013).

During this transformative period, research and theory worked diligently to unravel the intricate dynamics of resilience, aiming to understand how the variables identified in the initial wave of study contribute to and interact with each other, ultimately generating resilient outcomes (Masten & Obradović, 2006). In the early stages of the investigation, elements that demonstrated a dual function of promoting resilience and shielding individuals from adversity were discovered to operate effectively in both high-risk and low-risk contexts (O'Dougherty-Wright et al., 2013). This highlighted the existence of an inherent mechanism that not only facilitates personal growth but also ensures the sustained functioning of an individual even in the face of imminent danger and challenges (Bhamra et al., 2011).

Amidst this exploration of resilience, a multitude of models emerged, reflecting the multifaceted nature of the phenomenon. According to Flach's (1988) influential perspective, resilience follows a two-step model characterised by the rule of disruption and reintegration. This model, widely adopted in subsequent studies by Richardson et al. (1990), Richardson (2002), and Selby et al. (2009), conceptualises resilience as a process where stress and hardship contribute to disruption, prompting individuals to react by reintegrating themselves into society. This comprehensive understanding underscores the adaptive nature of resilience, emphasising not only the ability to endure challenges but also the capacity for self-renewal and reintegration into the social fabric after disruption. As the study of resilience unfolded during this period, it became clear that these models provided valuable frameworks for comprehending the intricate mechanisms at play during adversity.

Similarly, Richardson et al. (1990) presented the resilience model, which further expands Flach's (1988) theory of disruption and reintegration. The authors of the resilience theory

characterise it as a metatheory because it contains characteristics from a wide variety of different theories. The resilience model is a straightforward linear model that depicts an individual's level of homeostasis, disruption, and reintegration, as well as a variety of alternative outcomes, the resilient reconstitution or reintegration being the most favourable of the bunch (Selby et al., 2009). The development of understanding, as well as personal growth due to the interruption or disruptions, is a necessary component of resilient reintegration. Other possible outcomes vary from reintegration back to the point of homeostasis, which is the conclusion shortly before robust reintegration, to dysfunctional reintegration, which is the worst conceivable consequence (Richardson, 2002). The idea postulates that advancement through life takes place because of periodic reintegration after disturbances. These disruptions can be deliberate, such as starting a new career, or they can be unanticipated, such as an accident (Richardson, 2002).

The third wave of study on resilience began investigating ways in which resilience might be produced in situations where it did not normally arise (O'Dougherty-Wright et al., 2013). This is not to imply that all research relevant to the mechanisms involved in resilience (research conducted during the second wave) or the protective variables linked with resilience (research conducted during the first wave) has been completed. Rather, as Masten (2007) points out, some youngsters or children were growing up in an environment fraught with danger and difficulty and were unable to wait for fundamental science to complete its cycle. As a result, the third wave of study on resilience started the process of translating the results from the first two waves of research to establish strategies for prevention and intervention that would strengthen resilience.

Therefore, researchers started employing treatments to encourage healthy adaptation in those who had been recognised as being susceptible to experiencing a negative outcome (O'Dougherty-Wright et al., 2013). Before moving on to randomised controlled trials, these treatments were, first and foremost, theory-driven at the beginning of their development. During this time, researchers started to wrestle with concerns like whether there has to be risk or adversity present, as well as the best timing for treatments of this kind (Rutter, 2006). Rutter (2006) concluded that the successful development of resilience required exposure to risk or adversity but that this exposure must be regulated. In a similar vein,

when is the optimum moment to execute an intervention that is targeted at the development of resilience? This is an important question since the benefits of the intervention may be strengthened and prolonged if the intervention is implemented at the optimal time. According to O'Dougherty-Wright et al. (2013), some moments are better than others to interfere, such as when a developmental change is taking place.

Certainly, the effectiveness of any intervention hinges on the specific characteristics and objectives it aims to address. While most scholars align with the notion that the third wave of resilience research will predominantly focus on the aspects mentioned above, there exists a divergence in perspective. Notably, scholars like Richardson (2002) offer an alternative yet complementary viewpoint. Framing the third wave of resilience research as the period when scrutiny shifted towards understanding resilience as a motivational force propelling individuals toward reintegration and assimilation after facing adverse events or situations. This perspective suggests that the third wave signifies the inception of investigating resilience as an inherent motivational influence, compelling individuals towards achieving high-level objectives akin to the force driving self-actualisation in a Maslowian sense (Dillen, 2012). Therefore, it becomes evident that this particular viewpoint during the third wave represents a transformative shift in research stemming from the groundwork laid in the first two waves. As articulated by Richardson (2002), the third wave's perspective on resilience research sheds light on how researchers, particularly those engaged in prevention and intervention studies, were conceptualising the notion of resilience during that period.

Since then, research relating to resilience has continued to develop, progressing to what is currently being referred to as the fourth wave of resilience research. This is not to be taken as an indication that all the knowledge that might be gained from the first three phases of the study has already been obtained. Rather, research is advancing either because of an imperative, as was the case with the third wave of research, which was discussed before (Vella & Pai, 2019). Alternatively, research is expanding into areas where there is the possibility of collecting extra information because of developments in research methodology and technology, for example, the advancements that have been made in the measurement of genes and the many functions of the brain (Friedberg &

Malefakis, 2018). Additional examples are the creation of new animal models for researching behaviour and new statistical methods for assessing data and modelling development (Rutten et al., 2013).

According to van der Werff et al.'s (2013) findings, the fourth wave of study has the potential to produce a more in-depth comprehension of resilience on various levels. According to Kleim and Galatzer-Levy (2015), the fourth wave of research can build upon and integrate the prior research and theory that was gathered during the first three waves of research. This is something that can be done. In addition, Masten (2007) emphasises that studies of this nature should see resilience as a phenomenon that possesses several dimensions. Because it is now common knowledge that resilience is a multi-level phenomenon, it is now understood that resilience functions across numerous systems and interacts with each of these various systems. For instance, in the case of a child, resilience is something that originates from and acts across all levels (the individual, the family, and society) (Vella & Pai, 2019). In this approach, the meso-level is also able to contain additional intermediate-level organisations or communities that are tailored to the individual child (Daellenbach et al., 2016).

According to O'Dougherty-Wright et al. (2013), most of the recent work in the fourth wave of study has concentrated on the biology and neuroscientific underpinnings of resilience. For instance, research involving interactions between genes and their environments, the theory of differential susceptibility, treatments aimed at controlling maladaptive processes in the individual (such as maladaptation in response to stress) (Cathomas et al., 2019), and integrative models of resilience (Shevell & Denov, 2021) are all examples of such research.

It is clear from the subjects mentioned above that resilience is viewed as interactive and dynamic. Similarly, Kalisch et al. (2017) suggest that the dynamic mechanisms involved in the effective adaptation to adversities or stresses be the primary focus of future studies. They suggest doing prospective longitudinal studies to learn more about the mechanisms that are at play. More recently, Bryan et al. (2018) argue that it is essential to break away from solely trait-based perspectives to resilience and adopt the dynamic conceptualisation of resilience to appreciate further the processes that are involved in the

construct. They state that this shift is necessary to understand the processes that are involved in resilience further. In the first place, they argue that it is necessary to adopt process-based dynamic definitions of resilience that are in line with the multifactorial orientation of the processes that are being dealt with.

Bryan et al. (2018) point out that there is more to resiliency than simply being dynamic and that there is a requirement to consider other notions like self-regulation. Similarly, some people have argued that it is necessary to analyse other ideas, how they differ from resilience, and how they interact with resilience. These other concepts include coping and self-efficacy (Hinz et al., 2018). More recently, Infurna and Jayawickreme (2019) have drawn attention to the existing constraints inherent in resilience research, notably in reference to the outcomes that are the most suited for research on the notion of resilience. They observed that the focus of study in the future should be on this area. They also stress the need to research the connection between growth and resilience in the economy. They suggest that longitudinal research orientations would be the most suitable approach to investigate these concerns. Although it is obvious that research on resilience has advanced and developed over the years, this does not imply that all viable lines of inquiry have been investigated and exhausted.

As was said before, the beginning of a new wave of study does not signify that the research conducted during the previous wave is complete. For this reason, researchers should continue working toward a better understanding of the complexity of resilience. To be more specific, research in the future might look at protective variables and how to acquire and improve such traits, particularly while understanding resilience as a phenomenon that occurs on several levels. In addition, research should be conducted to investigate the complexities of resilience using multi-dimensional research models to inform multi-level prevention and intervention strategies for the development of resilience in various groups or in individuals who are experiencing a variety of challenges. In addition, research will be carried out to determine the molecular and neurological underpinnings of resilience, as well as the ways in which these results interact with the domains outlined above.

3.3.2 Core Dimensions of Resilience

Based on the reviewed studies on resilience, this research employed a multidimensional approach to exploring the relevant themes of concern. All three major dimensions that influence the resilience development process were explored: the individual, the family, and the external environment. Adopting this approach provided an expansive theoretical basis for understanding the intricate dynamics of resilience and how it evolves within individuals and communities. By considering the individual, family, and societal dimensions, we can gain a comprehensive perspective on the factors that contribute to the development of resilience and how they interplay. This holistic view allows us to identify the key determinants of resilience and also develop more effective strategies for promoting and enhancing resilience in diverse contexts, ultimately contributing to the well-being and success of individuals and the broader society.

3.3.2.1 Personal Characteristics

The first sub-dimension to be explored is the role personal characteristics play in the resilience development process. Here, the primary focus is placed on determining the influence of an individual's traits in shaping their ability to adapt and bounce back in the face of adversity. Two aspects will be explored: neurobiology and personality.

The Neurobiology of Resilience

Understanding the intricate neurobiological pathways contributing to human resilience poses a challenging and formidable task (Feldman, 2020). Similarly, the identification and evaluation of resilience phenotypes in animals, representing positive elements of animal health, present a demanding endeavour (Vella & Pai, 2019). Researchers have employed a variety of experimental designs to investigate the impact of stress on diverse animal species at different life stages. The predominant focus of animal research has involved experimental paradigms that simulate disruptions in secure social attachments. These paradigms include exposures like prenatal maternal restraint stress (Juárez et al., 2020), phenotype modelling (Putz et al., 2019), early-life maternal deprivation (Réus et al., 2017), environmental disturbances (Hodgson et al., 2015), maternal nurturing behaviour (Juárez et al., 2020), social isolation (Qi et al., 2021), external trauma inducement (Daniels et al., 2011), genetic selection (Maul et al., 2020), and chronic physical or social

distress. Each of these experimental approaches contributes to unravelling the complex interplay between stress and resilience in various animal species, shedding light on the intricate mechanisms underlying adaptive responses to challenging circumstances.

An essential aspect of prolonged health in the face of adversities is a healthy response to stress, reducing the likelihood of mental health disorders following severe challenges (Murrough & Russo, 2019). The major brain systems governing stress responses encompass the hypothalamus–pituitary–adrenal nexus, the sympathetic nervous system, and the dopaminergic and serotonergic neurotransmitter systems (Nestler & Waxman, 2020). Notably, dopaminergic projections from the ventral tegmental area to the nucleus accumbens are activated and regulated by the neurocircuitry mediating reward experiences (Dudek et al., 2019). Originating in the mesolimbic region of the brain, these projections play a crucial role in understanding individual reactions to the same environment. Differences in genetic endowments and makeup contribute to the variability in how people respond to similar situations (Maul et al., 2020). Exploring these mechanisms sheds light on the complex interplay between genetic factors and environmental stimuli in shaping individual stress responses.

The intricate interplay between genes and external stimuli unfolds a fascinating phenomenon known as synergism, or interaction, where exposure to either alone fails to yield a predetermined outcome, but their combined influence does (Vella & Pai, 2019). This synergy emerges from the genetic moderation of environmental sensitivity. The imprinting of experiences is hypothesised to involve multiple biological systems participating in and regulating the process. These experience-dependent mechanisms operate on various biological levels, likely in coordination, to govern the sensitivity and flexibility of the central nervous system (Gerbault et al., 2011). While research on humans unequivocally highlights the significance of a large social network and positive experiences in fostering resilience, quantifying and assessing these features poses a considerable challenge.

Resilience encompasses more than just the positive extremes of a continuum alongside risk; instead, it comprises distinct biological and psychological traits fostering well-being and mental health, enabling effective adaptation or swift recovery from life's challenges

(Cathomas et al., 2019). Psychological factors like secure attachment, positive emotions, and a sense of purpose play a crucial role in enhancing resilience. They contribute to overall mental health, mitigate disturbances following exposure to risk or adversity, and facilitate recovery from adversity-induced mental health challenges (Leal & Silvers, 2021). However, when subclinical symptoms coincide with additional challenges or adversities, they may persist atypically. This persistence is amplified by a combination of negative environmental exposures during development, such as pre- and perinatal stress, social isolation, low maternal care, abandonment, and childhood trauma (Feldman, 2020). This confluence can sensitise and entrench behaviours and the central nervous system, setting a trajectory predisposing individual to psychiatric disorders, starting with subclinical disorders, and leading to unusually persistent symptoms.

Personality and Resilience

Personality is another aspect that has been comprehensively explored within the extant resilience scholarship. Assessing how individuals' personality traits contribute to their ability to bounce back from adversity and thrive in the face of challenges is a critical component of understanding resilience (Zager Kocjan et al., 2021). Like most heavily researched constructs, the term personality has several divergent definitions. However, at its core, it can be defined as the unique and enduring pattern of thoughts, feelings, and behaviours that characterises an individual (Hogan & Sherman, 2020). Personality encompasses a wide spectrum of traits, behaviours and attitudes that influence how an individual interacts with their environment and responds to internal and external stimuli (Allen & Walter, 2018).

Numerous studies have sought to uncover the existence and degree of resilient personality qualities that, in conjunction with social and environmental conditions, allow people to attain a dynamic process involving positive adaptation within the setting of considerable adversity (Leys et al., 2020). Their research indicates that certain personality characteristics, such as having a sense of humour, being socially responsible, being kind, adaptable and tolerant, having healthy social interactions, self-esteem, self-discipline, and self-control, as well as having the ability to plan, solve problems, and think

critically, are all helpful in overcoming challenges (Bhattacharyya et al., 2019; Pyszkowska, 2020; Woodward et al., 2019).

In recent years, the Big Five model has been the most common method used to evaluate the personalities of people. According to this theory, five primary components comprise a person's personality: openness, conscientiousness, extraversion, agreeableness, and neuroticism (OCEAN) (Barańczuk, 2019). Agreeableness refers to a person's tendency to be cooperative, compassionate, and considerate in their interactions with others. People high in agreeableness are often empathetic, warm, and willing to compromise in social situations (Fazli-Salehi et al., 2021). They value harmonious relationships and tend to avoid conflict whenever possible. On the other hand, individuals low in agreeableness may be more assertive and less concerned with pleasing others, sometimes displaying a more competitive or sceptical nature.

With the openness personality type, an individual is often perceived as curious, imaginative, and open to new experiences (Awwad & Al-Aseer, 2021). People high in openness tend to have a strong desire for exploration and a keen interest in the world around them. They are open to novel ideas, diverse perspectives, and unconventional approaches, which makes them more likely to embrace change and innovation. Conscientiousness, on the other hand, represents a personality trait characterised by an individual's tendency to be organised, responsible, and detail-oriented in their approach to tasks and goals (Obrenovic et al., 2021). People with high conscientiousness are often diligent, reliable, and committed to meeting their obligations.

Another personality type to consider is extraversion. Here, an individual is perceived as outgoing, sociable, and energised by social interactions. People high in extraversion thrive in the company of others, often seeking out social gatherings and enjoying the spotlight (Tao et al., 2020). They tend to be talkative, enthusiastic, and approachable, which makes them adept at forming and maintaining interpersonal relationships. Extraverts often draw energy from external stimuli and social engagement. Alternatively, neuroticism represents a personality trait characterised by emotional instability and a tendency to experience negative emotions such as anxiety, sadness, and mood swings frequently and intensely (Ghaffar et al., 2022). People high in neuroticism are often more

reactive to stressors and may have difficulty managing their emotional responses in challenging situations. They may worry excessively, ruminate on problems, and have a heightened sensitivity to criticism or perceived threats.

The OCEAN framework is the most widely used in studies that explore the modalities of human personalities. Within the domain of resilience literature, several studies have sought to determine how these personality types influence the resilience development processes of individuals. For example, Nieuwenhuis (2018) found that agreeableness weakens the adverse impact school poverty has on the educational attainment of adolescents, contributing to more robust resilience and coping mechanisms within the school environment. In a professional setting, agreeableness was found to induce career commitment positively and significantly predict career resilience in Indian firms (Arora & Rangnekar, 2016). Wang et al. (2021) discovered that agreeable students were better suited to effectively deal with the challenges and problems that come with the Chinese teaching and learning environment. The researchers found that students with higher levels of agreeableness exhibited a greater ability to establish positive and cooperative relationships with their peers and instructors. This interpersonal skill allowed them to access valuable support networks and resources, ultimately aiding in their academic and personal development.

Extraversion is a personality type that has been found to influence an individual's resilience positively. Researchers like Tutzer et al. (2021) and Chernova et al. (2021) discovered that this trait played an essential role in combating the prevalence of psychological distress, loneliness, and boredom during the COVID-19 pandemic. Extraversion allows an individual to thrive in social situations, seek out social support, and maintain an active social network, which proved crucial during social isolation and restrictions. Highly extroverted individuals often exhibited greater adaptability, emotional well-being, and a capacity to remain connected with others through digital means (Tutzer et al., 2021). Similarly, conscientiousness and openness both have a positive impact on resilience. These traits contribute to an individual's ability to face adversity and thrive in different ways. Conscientious individuals tend to approach challenges with a structured and organised mindset, enabling them to set clear goals, work diligently, and persevere

even in the face of obstacles (Graham et al., 2020). Their disciplined and responsible nature can lead to effective problem-solving and a greater likelihood of successfully overcoming difficulties. On the other hand, openness fosters adaptability and creative problem-solving. People high in openness are more willing to consider unconventional solutions, embrace change, and explore new perspectives, making them better equipped to navigate the uncertainty and complexities of adversity (Pauly et al., 2021).

Conversely, neuroticism is deemed to negatively influence resilience in several studies (Das & Arora, 2020; Oshio et al., 2018). Specifically, Kaniušonytė & Laursen (2022) found that children with high levels of neuroticism often face challenges in displaying positive adaptations to adversity and stressors, even in the presence of supportive parents and role models. Pauly et al. (2021) uncovered that neurotic individuals tend to be more prone to experiencing heightened levels of anxiety and depressive symptoms when confronted with life's difficulties. This emotional reactivity can impede their ability to bounce back and effectively cope with adversity, ultimately hindering their resilience. Neurotic children and adolescents often internalise problems that they encounter, leading to a heightened vulnerability to self-blame and a negative self-perception (Javed et al., 2022). They may interpret adversity as a reflection of their failures, which further aggravates their emotional distress and undermines their self-esteem.

3.3.2.2 Family Support System

Families are another essential dimension of the resilience development process. Their support offers individuals the confidence and resources they require to adequately surmount life's challenges (Martin et al., 2015). The family unit plays a pivotal role in nurturing resilience by offering emotional support, stability, and a sense of belonging (Admadeli & Embu-Worho, 2021). In times of adversity, families can serve as a primary source of encouragement, understanding, and a safety net for their members (Gayatri & Irawaty, 2021). Their shared values, communication, and problem-solving abilities create a supportive environment that helps individuals develop essential coping skills and a resilient mindset. Furthermore, family experiences and dynamics shape an individual's early life experiences, influencing their capacity to handle stress and adversity in

adulthood (Eales et al., 2021). Therefore, the family is a foundational pillar in the resilience development process, fostering strength and adaptability in the face of life's challenges.

The emotional and psychological support families provide gives an individual the essential foundation to build a strong sense of self-esteem and self-worth (Soon-Bo & Dong-Young, 2019). Knowing that they have a secure and loving familial network to fall back on, individuals are more likely to develop confidence in their abilities and resilience in the face of adversity. This sense of security instilled by family support allows individuals to weather life's storms with a greater degree of optimism and a positive outlook. Furthermore, it empowers them to face challenges head-on, knowing they have a safety net of love and understanding to rely on. The emotional bonds within the family are instrumental in fostering an individual's emotional well-being and their ability to navigate life's ups and downs with greater confidence and resilience (Tian et al., 2018).

Another manifestation of family support is financial. This type of support often involves the provision of resources, financial assistance, and a safety net to help individuals overcome economic hardships and financial challenges (Borazon et al., 2023). Families may offer financial support for education, housing, healthcare, or emergencies, which can significantly alleviate the stress and burden associated with financial setbacks (Adhariani, 2022). Having this financial backing from family members can provide individuals with a sense of security and stability, enabling them to focus on their personal growth and well-being. This type of support not only aids in immediate crises but also empowers individuals to plan for their future and build financial resilience, knowing that they have the support and resources they need to weather financial storms when they arise.

3.3.3 External Context/Environment

No human exists in isolation. At our core, we are inherently social beings, reliant on a diverse array of individuals and institutions to foster and uphold our existence. From the very moment of our birth, we find ourselves woven into an intricate web of relationships and connections that offer us love, care, and invaluable guidance (Cascio et al., 2019). In shaping an individual's resilience, it is crucial to recognise that it is not solely one's family environment that exerts an influence but also the external surroundings in which we are immersed (Zheng et al., 2020). This external environment encompasses a wide

range of factors, including the societal, cultural, and economic contexts that profoundly impact our growth and development (Nerubasska et al., 2020).

Friends, for instance, play a critical role in helping an individual traverse the myriad challenges and limitations that life presents (Langgartner et al., 2018). They often act as a source of emotional support that helps an individual make sense of the complex tapestry of their experiences. In times of confusion or uncertainty, friends can offer clarity and a different perspective, enabling us to gain insight into our own emotions and actions (Hasselle et al., 2022). Through shared conversations and empathetic listening, they provide a safe space for us to express our thoughts and feelings, fostering a deeper understanding of ourselves and the world around us (Austin et al., 2020). Friends, in this way, become invaluable companions in the journey of self-discovery and emotional well-being (Weinhardt et al., 2019). A person with no or very few friends may struggle to experience the richness of social connection and emotional support that friendship provides (Boima et al., 2023). Loneliness and isolation can become pervasive challenges, impacting their mental and emotional well-being (Zhang et al., 2020). Without friends, an individual might find it challenging to share their joys, sorrows, and daily experiences, which can lead to a sense of loneliness and a lack of emotional outlets. Additionally, the absence of friends can limit a person's opportunities for personal growth and self-discovery, as friendships often offer different perspectives and insights that can be crucial for one's development (Afshordi & Liberman, 2020).

The community within which an individual finds themselves is also another factor to consider when exploring pathways to resilience. Communities provide a vital support system that can significantly influence an individual's ability to weather life's challenges (Pudjiati et al., 2021). They offer a sense of belonging, shared identity, and a network of social connections that can serve as a safety net in times of need. Community resources, such as local organisations and social services, can offer valuable assistance and opportunities for personal growth. Moreover, the cultural norms and values within a community can shape an individual's worldview and coping strategies, impacting how they respond to adversity (Robinson & Schmitz, 2021). A volatile, toxic, or non-enabling community can limit the ability of its residents to effectively cope with life's challenges and

setbacks (Plough, 2021). In such environments, individuals may face increased stress, social isolation, and a lack of access to essential resources and support systems. Toxic community dynamics can lead to the perpetuation of harmful behaviours, making it difficult for residents to break free from negative patterns (Plough, 2021). These conditions can hinder personal growth and resilience as individuals struggle to find the necessary emotional and practical resources to navigate adversity.

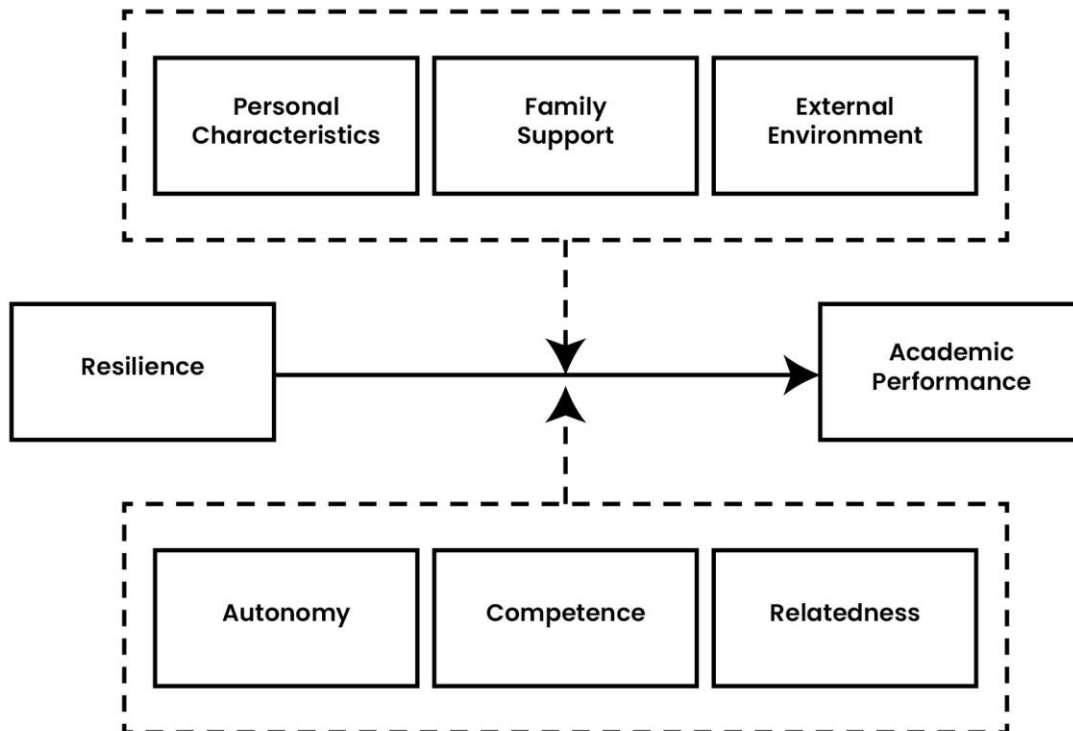
The school is a social institution that can also promote or impede resilience in its students. Having a conducive teaching and learning environment is essential for nurturing resilience (Twum-Antwi et al., 2019). Supportive teachers, who not only impart knowledge but also provide emotional encouragement and guidance, play a crucial role (Guo et al., 2020). A school that fosters a sense of belonging and inclusivity can help students develop resilience by teaching them how to cope with challenges, build self-esteem, and form positive social connections (Aldridge et al., 2019). On the other hand, a school environment marred by bullying, discrimination, or inadequate resources can hinder the development of resilience and exacerbate stress (Ganotz et al., 2021). Providing students with a constructive conduit to express their feelings, fears, and aspirations is equally important. Open channels of communication within the school community can empower students to share their concerns and seek support when facing adversity (Kwarikunda et al., 2023). Furthermore, a curriculum that encourages problem-solving, critical thinking, and adaptability can equip students with valuable skills to confront life's uncertainties with confidence (Alexopoulou et al., 2019).

For many people, religion also provides essential tools for circumventing life's adversities and challenges (Mhaka-Mutepfa & Maundeni, 2019). It offers a profound framework for understanding the meaning of suffering, providing individuals with a sense of comfort and solace during trying times (Schwalm et al., 2021). Through prayer, meditation, and religious rituals, people often find a source of inner strength and resilience, enabling them to face adversity with a deep sense of faith and hope (Chang et al., 2021). Religious communities further enhance this process by offering a support network of like-minded individuals who share common values and beliefs (Captari et al., 2019).

3.4 Conceptual Framework

The purpose of the conceptual framework is to provide a structured foundation for understanding and analysing complex phenomena, relationships, or concepts within a particular field of study (Guntur, 2019). It serves as a roadmap that helps researchers, scholars, and practitioners organise their thoughts, identify key variables, and develop hypotheses or models to guide their investigations (Mugizi, 2022). A well-constructed conceptual framework clarifies the scope of inquiry, defines essential terms and constructs, and outlines the connections between various components of the study. The conceptual framework of this study is highlighted in the figure below.

Figure 3.1: Conceptual Framework on Resilience and Academic Performance



In the figure above, I suggest that resilience plays a crucial role in influencing the academic performance of Ghanaian adolescent students. However, it's important to note that this relationship is not isolated but rather influenced by a complex interplay of other variables. Specifically, the factors of motivation, such as autonomy, competence, and

relatedness, have a significant role in this dynamic. Additionally, multifaceted determinants of resilience, including personal characteristics, family support, and the external environment, further contribute to the complexity of the relationship. By considering all these elements, I aimed to create a more comprehensive understanding of how these factors collectively impact the academic success of Ghanaian public junior high school students.

3.5 Rationale for Theory Choice

Exploring the interplays between resilience and academic performance presents a myriad of divergent pathways that showcase the complex relationship between an individual's ability to bounce back from adversity and their success in educational pursuits. However, employing the self-determination theory and the multidimensional resilience framework offers ample opportunity to assess nuanced aspects of this intricate connection. Motivation is a key construct that has been central in several studies exploring the antecedents of academic performance (Goodman et al., 2021; Howard et al., 2021; Lan & Hew, 2020). This intrinsic drive, whether fuelled by personal aspirations (Howard et al., 2021), external goals (Almukhambetova & Hernández-Torrano, 2020), or a combination of both, plays a pivotal role in determining a student's commitment to their educational journey. It influences their effort, persistence, and willingness to overcome obstacles (Martínez et al., 2019). Consequently, the Self-Determination Theory (SDT) has been used extensively by researchers to delve deeper into the motivational underpinnings of academic success. The self-determination theory focuses on the various levels of motivation and how they relate to an individual's autonomy, competence, and relatedness in the learning process. This theoretical framework helps uncover the complex interplay between motivation and resilience, shedding light on how a student's inherent drive and sense of autonomy can enhance their capacity to bounce back from setbacks and persist in their educational pursuits (Trigueros et al., 2020).

The Self-Determination Theory (SDT) offers a robust framework for understanding the intricate connections between motivation, resilience, and academic performance. The SDT provides a comprehensive lens to analyse the dynamic interplay among these crucial elements. However, it's worth noting that there is a limited number of empirical

studies that have adopted both the resilience and SDT theories within the current research context. Thus, within the Ghanaian educational setting, there is an opportunity to bridge this gap and explore how SDT can be applied to comprehend better the dynamics of motivation, resilience, and academic achievement.

Furthermore, many studies on resilience and academic performance often take a one-sided approach. However, it is essential to recognise that resilience is a multi-layered concept comprising interconnected dimensions that collectively shape an individual's capacity to succeed. To gain a more holistic perspective, it is crucial to consider an individual's unique personal characteristics, the level of support from their family, and the impact of their external environment. Such an approach allows for a more comprehensive understanding of the intricate web of factors that influence an individual's ability to thrive academically and navigate life's challenges effectively. There is a shortage of studies that adopt this comprehensive approach in examining resilience and academic performance. By considering an individual's personal attributes, family support, and the external environment collectively, we can better appreciate the complex connections between these elements and how they contribute to an individual's overall success. Expanding research in this direction not only deepens our understanding of resilience but also uncovers new possibilities for designing effective interventions and support systems to bolster academic achievement and personal growth.

3.6 Conclusion

Chapter Three delved into the theoretical foundations guiding a study on the relationship between resilience and academic performance among junior high school students in Ghana. The chapter introduced two crucial theories: the Self-Determination Theory and the Resilience Theory. The Self-Determination Theory, a macro-level theory of human motivation, emphasises autonomy, competence, and relatedness as key factors influencing an individual's motives and actions. Meanwhile, the Resilience Theory provides a holistic view of how individuals effectively respond to adversity, highlighting the importance of coping patterns that resist unfavourable outcomes. Both theories have proven versatile across diverse domains, from education to relationships and health.

The exploration of these theories establishes a groundwork for understanding the intricate dimensions of resilience, motivation, and academic performance. The Self-Determination Theory underscores autonomy, competence, and relatedness, while the Resilience Theory encompasses personal characteristics, family support, and the external ecological context. These choices are made based on the theories' heuristic strength and widespread applicability, offering a comprehensive framework to study the complex interplay between resilience and academic achievement. The selected theories provide valuable insights into the endogenous and exogenous factors influencing educational success among Ghanaian public junior high school students. After constructing the conceptual framework, the study is poised to operationalise these theories in subsequent chapters, aiming to unravel the intricate relationships between resilience and academic performance, ultimately contributing to the well-being and success of students in the Ghanaian educational landscape.

CHAPTER FOUR: RESEARCH METHODOLOGY

4.1 Introduction

In this chapter, the research methodology employed in the investigation is delineated, providing a comprehensive framework for the study's execution. This section begins with an introduction to the overall research methodology, setting the stage for a thorough exploration of various key elements. The subsequent sections delve into the choice of research paradigms guiding the inquiry, the selected research design, and the overarching research approach adopted. The discussion further encompasses considerations related to the research sample and population, elucidating the rationale behind the chosen demographics. Additionally, the chapter outlines the instruments employed for data collection and the techniques applied for data analysis. A detailed account of the data collection procedure, encompassing both the pilot and main studies, is presented, emphasising the meticulousness employed to ensure the rigour of the study. Finally, ethical considerations governing the research process are scrutinised, underscoring the commitment to maintaining the highest standards of ethical conduct throughout the study.

The primary research questions guiding the study are stated again below for ease of reference:

1. What factors influence resilience in students?
2. What factors indicate high academic performance in students?
3. What factors indicate low academic performance in students?
4. What factors influence less resilience in students?
5. What factors influence resilience and high academic performance in students?
6. How do students and teachers explain resilience?
7. How do students and teachers explain academic performance?

4.2 Research Paradigms

Research paradigms are of critical importance in the scientific inquiry process. They highlight the fundamental philosophical underpinnings that shape the researcher's worldview, guiding the overall approach to knowledge generation (Kelly et al., 2018). In

essence, research paradigms provide the conceptual framework through which researchers conceptualise and interpret their inquiries, influencing the choice of methodologies or research methods (Hooker, 2018) and the overall design of the study (Park et al., 2020). This section delves into the exploration of various research paradigms, recognising their impact on the research process and acknowledging the significance of aligning the chosen paradigm with the nature of the research objectives. By elucidating the foundational principles that underlie the investigation, researchers gain a clearer understanding of the lens through which they perceive and analyse the phenomena under scrutiny, ultimately contributing to the robustness and validity of the research outcomes (Brown & Dueñas, 2019). As such, a thoughtful consideration of research paradigms is essential for establishing a solid foundation upon which the entire research methodology is constructed (Abdullah Kamal, 2019).

A research paradigm describes the underlying framework and philosophical perspective that shapes the researcher's approach to inquiry (Buriro et al., 2021). It serves as a lens through which scholars perceive and interpret the nature of reality, guiding the entire research process from conception to conclusion. A research paradigm encapsulates the researcher's fundamental beliefs, assumptions, and ontological and epistemological stance, providing a theoretical foundation that informs the choice of research methods and methodologies (Kivunja & Kuyini, 2017). Research paradigms play an invaluable role in academic research. They serve as the intellectual foundation that defines the researcher's ontological and epistemological beliefs, influencing how they perceive and investigate phenomena (Halcomb, 2018). Research paradigms, whether positivist, interpretive, or critical, provide a lens through which scholars approach the nature of reality, knowledge, and the relationship between the researcher and the researched phenomena. This conceptual framework not only informs the researcher's worldview but also directs choices regarding research design, methodology, and data analysis (Hua, 2015). By explicitly articulating the research paradigm, the researcher can offer transparency into the guiding principles that govern the study, promoting a deeper understanding of the research's orientation and enhancing the credibility and coherence of the overall research endeavour. Recognising the significance of a well-defined

research paradigm is crucial for aligning the study with established philosophical foundations and ensuring the validity and reliability of the research outcomes (Rahi, 2017).

Four main research philosophies underpin various research paradigms, each shaping the way researchers approach and conduct investigations. These philosophies, namely positivism, interpretivism, critical theory, and pragmatism encompass distinct ontological and epistemological perspectives.

Positivism, as a research paradigm, is grounded in the belief that there is an observable reality governed by universal laws, emphasising empirical exploration and systematic observation (Park et al., 2020). It employs deductive reasoning and quantitative methodologies to establish causality and uncover regularities in social phenomena. While criticised for oversimplifying complex social realities and neglecting subjective aspects (Kamal & Radhakrishnan, 2019), positivism remains significant for its emphasis on objectivity and rigorous methodology, particularly in contexts requiring precision and replicability (Ling, 2017).

Interpretivism, in contrast to positivism, focuses on understanding subjective meanings and social constructions individuals attach to their experiences (Junjie & Yingxin, 2022). Rejecting the idea of a single, objective reality, interpretivism prioritises qualitative methods to explore the diverse ways people make sense of their social worlds. While criticised for its subjectivity and potential challenges in data interpretation (McChesney & Aldridge, 2019), interpretivism advocates argue that embracing diverse perspectives allows for a more comprehensive understanding of social phenomena within their natural contexts (Zahle, 2021).

Critical theory emphasises understanding and transforming society to address issues of inequality and social injustices (Shannon-Baker, 2016). It scrutinises power structures and advocates for social change through participatory and collaborative research methods. Criticisms of critical theory include concerns about bias, subjectivity, and the prioritisation of advocacy over scholarly rigour (Schmid, 2023). However, advocates argue that embracing subjectivity aligns with the paradigm's commitment to

acknowledging the researcher's role in shaping knowledge production and bridging theory with praxis (Bünger & Mayer, 2018).

This study employed pragmatism as its primary research paradigm.

4.2.1 Pragmatism

Alternatively, a pragmatist worldview is more inclined to adopt a flexible and problem-solving approach to research, prioritising practical solutions and the applicability of knowledge in addressing real-world issues (Kaushik & Walsh, 2019). Rooted in the philosophy of pragmatism, this worldview is characterised by its emphasis on the usefulness and consequences of ideas and actions. Pragmatists reject rigid adherence to a particular paradigm or set of methodologies, instead advocating for an eclectic and context-driven approach (Kelly & Cordeiro, 2020). In the pragmatist paradigm, the choice of research methods is guided by the specific needs of the research question and the practical outcomes desired. This worldview acknowledges the dynamic nature of social phenomena and encourages researchers to draw on a mix of qualitative and quantitative methods, as well as other disciplinary perspectives, to gain a comprehensive understanding of the issues at hand (Maarouf, 2019). As such, a core consideration of this worldview is the pragmatic evaluation of the effectiveness of research methods in achieving practical outcomes. Pragmatists emphasise the importance of assessing the utility of research findings in addressing real-world challenges and informing decision-making (Glogowska, 2011). Unlike paradigms that prioritise adherence to a particular philosophy, pragmatism recognises that the appropriateness of research methods may vary across different contexts and research goals (Biddle & Schafft, 2014).

This pragmatic stance allows researchers to prioritise the best-fit methods for the specific research problem at hand, facilitating a more adaptive and problem-solving orientation (Hothersall, 2018). With this, the primary objective is to bridge the gap between theory and practice, emphasising the translation of research insights into actionable solutions. The pragmatic orientation underscores the importance of not only generating knowledge for its own sake but also ensuring that the knowledge produced has practical implications and can contribute meaningfully to addressing real-world challenges (Frankel Pratt, 2016). In a pragmatist worldview, the primary objective is to produce research outcomes

that are academically sound and also directly applicable and beneficial in diverse contexts (Parvaiz et al., 2016). This involves a continuous process of reflection and adjustment, wherein researchers remain open to refining their methods and approaches based on the evolving needs of the research problem and the dynamic nature of the issues being investigated. As such, the pragmatist paradigm places a premium on the integration of diverse perspectives, interdisciplinary collaboration, and a continual reassessment of the utility and impact of research endeavours on the broader societal landscape (Hesse-Biber, 2015).

4.2.2 Rationale for Choosing the Pragmatist Worldview

Unlike the other research worldviews and philosophies, pragmatism provided the ideal framework for this study due to its adaptive and problem-solving orientation. The examination of the relationship between resilience and academic performance necessitates a holistic understanding that goes beyond theoretical abstractions. A pragmatist worldview allows for the incorporation of both qualitative and quantitative methods, enabling a nuanced exploration of the multifaceted aspects of resilience and its practical implications for academic success (Maarouf, 2019). In the context of Ghanaian public junior high school students, where socio-cultural factors and individual experiences play a crucial role, the pragmatic approach ensures flexibility in adapting research methods to the specific needs of the study population. Moreover, by prioritising practical solutions, the pragmatist paradigm aligns seamlessly with the study's aim of unravelling the dynamics between resilience and academic performance and also offering insights that can inform educational interventions and support systems.

4.3 Research Design

The purpose of a research design is to systematically plan and structure the entire research process, providing a blueprint that guides the collection, analysis, and interpretation of data (Indu & Vidhukumar, 2020). A well-crafted research design is essential for achieving the study's objectives and ensuring the reliability and validity of the findings. It serves as the framework that outlines the methods, procedures, and strategies employed to address the research questions or hypotheses (Blair et al., 2019). The purpose of a research design is to establish the overall structure of the study,

delineating the type of data to be collected, the methods of data collection, and the analytical techniques to be applied (Gaus, 2017). By defining these elements, the research design helps researchers make informed decisions about how to gather evidence, assess relationships, and draw meaningful conclusions. Additionally, a robust research design facilitates transparency and replicability, enabling other scholars to reproduce or build upon the study (Cook & Cook, 2016).

According to Creswell et al. (2007), there are three main types of research designs: exploratory, descriptive, and explanatory (causal research). These designs serve distinct purposes in the research process. With exploratory research, emphasis is placed on generating initial insights and understanding into a research problem that is not well-defined or lacks sufficient prior investigation (Jebb et al., 2017). Exploratory research design is particularly valuable when the researcher aims to examine a novel topic, identify key variables, or uncover potential relationships within a phenomenon (Reio & Shuck, 2014). The primary goal is to generate hypotheses, refine research questions, or provide a foundation for more structured investigations in the later stages of the research process. Exploratory research design is like navigating uncharted territory, where the researcher embraces the ambiguity of the subject matter and seeks to shed light on aspects that may have been overlooked (Ridder, 2017). This design phase is crucial for laying the groundwork and establishing a solid foundation for subsequent research stages.

Descriptive research, on the other hand, focuses on providing a detailed and comprehensive account of the characteristics, behaviours, or conditions within a specific context or population (Doyle et al., 2019). This type of research design seeks to answer the fundamental questions of who, what, when, where, and how, aiming for an accurate portrayal of the subject under investigation. Descriptive research design is particularly useful when the researcher aims to capture the current state of affairs, establish benchmarks, or document patterns and trends over time (Nassaji, 2015). Commonly employing quantitative methods such as surveys, observational studies, or content analysis, this design allows for the systematic collection and analysis of data to present a clear and objective snapshot of the researched phenomenon (Doyle et al., 2019). The emphasis on precise measurement and structured methodologies distinguishes

descriptive research, making it instrumental in providing valuable insights for decision-making, policy development, or further research endeavours (Matua & Van Der Wal, 2015).

Thus, descriptive researchers are concerned about providing a solid foundation of empirical data that can serve as a basis for informed decision-making and policy formulation. The meticulous attention to detail, coupled with the structured methodologies employed in descriptive research, enables researchers to present an accurate and unbiased depiction of the studied context or population (Alhoussawi, 2023). Descriptive researchers are concerned about ensuring the reliability and validity of their findings, as these insights often contribute to establishing benchmarks, monitoring changes over time, and identifying areas for improvement or intervention (Colorafi & Evans, 2016). The emphasis on objective measurement and systematic analysis distinguishes descriptive research as a valuable tool for generating evidence that can inform various stakeholders, ranging from policymakers to practitioners (Bradshaw et al., 2017).

Finally, with explanatory research, the focus shifts towards understanding the underlying mechanisms, relationships, or causal factors that influence a particular phenomenon (Toyon, 2021). Explanatory research design goes beyond the exploration and description of a subject, aiming to unravel the why and how behind observed patterns or correlations. This design is particularly relevant when there is a need to establish causation, clarify the nature of relationships between variables, or identify the factors contributing to a specific outcome (Benitez et al., 2020). Employing a combination of quantitative and qualitative methods, explanatory research design allows for a more comprehensive and in-depth analysis. Surveys, experiments, and case studies are often utilised to gather data, while interviews or focus groups may be employed to gain a deeper understanding of participants' perspectives (Subedi, 2016).

The ultimate goal is to move beyond mere observation and uncover the mechanisms driving the observed phenomena, offering a richer and more nuanced comprehension of the research problem. By employing this design, the researcher aims to provide a holistic and well-rounded explanation for the observed phenomena, addressing not only the "what" but also the "why" and "how" of the research question (Bishop, 2014). Explanatory

research seeks to contribute to the theoretical understanding of a given subject, providing valuable insights that can inform future research, policy development, or practical interventions. The researcher engages in a rigorous analysis of the collected data, striving to identify patterns, trends, and potential causal relationships (Doyle et al., 2016). Through this process, explanatory research design plays a crucial role in advancing knowledge within a specific field by uncovering the intricacies and underlying dynamics of the studied phenomenon (van Aken et al., 2016).

Thus, this study will employ an explanatory research design using sequential timing. This will enable the researcher to critically examine the primary antecedents and underlying factors that influence or spur the interplays between resilience and academic performance of Ghanaian public junior high school students. This inquiry will require the utilisation of both quantitative and qualitative research methods, allowing for a comprehensive exploration of the multifaceted relationship between resilience and academic performance. The explanatory research design, characterised by its dual-method approach, is particularly apt for unravelling the complexities inherent in this study's focus. This design will be integral to delving deeper into the subjective experiences, perceptions, and contextual nuances that underpin the relationship between resilience and academic performance. Moreover, the explanatory research design is well-suited to uncover causal relationships and offer a more nuanced interpretation of the findings. By utilising this method, the study aims not only to establish associations but also to explain the underlying mechanisms and contextual factors shaping the observed patterns.

4.4 Research Approach

There are three main research approaches available to researchers: qualitative, quantitative, and mixed. With qualitative research, emphasis is placed on exploring the depth and complexity of human experiences, perceptions, and behaviours (McCusker & Gunaydin, 2014). This approach involves gathering non-numerical data, such as narratives, observations, or interviews, to gain a nuanced understanding of the underlying meanings and contexts associated with a particular phenomenon (Taguchi, 2018). Qualitative research is particularly valuable when investigating topics with rich, context-

dependent insights, providing an in-depth exploration that goes beyond statistical measurements (Hammarberg et al., 2016). It allows researchers to uncover patterns, themes, and the subjective aspects of a research question, offering a holistic perspective that quantitative methods may not fully capture.

On the other hand, quantitative research involves the systematic collection and analysis of numerical data, aiming to identify patterns, relationships, and trends through statistical methods (Mcperson & Leydon, 2002). This approach is characterised by its emphasis on objectivity, generalisability, and the ability to draw conclusions based on measurable evidence. Quantitative research is well-suited for investigations where numerical data can provide a clear and structured understanding of variables and their interrelationships, allowing for statistical analyses to test hypotheses and draw robust conclusions (Watson, 2015).

A third option is the mixed-methods approach, which combines both qualitative and quantitative research methods. This approach is beneficial when researchers seek to capitalise on the strengths of both approaches, providing a more comprehensive understanding of a research question (Schoonenboom & Johnson, 2017). By triangulating data from different sources, mixed-methods research allows for a more nuanced exploration that leverages the depth of qualitative insights and the generalisability of quantitative findings. Thus, this study employed a mixed research approach, which enabled a multifaceted examination of the complex phenomenon under investigation.

Employing a mixed research approach is best suited for explanatory studies since it facilitates a comprehensive and nuanced investigation, capturing both the breadth and depth necessary for a thorough exploration and understanding of the research question. Explanatory studies aim to delve beyond surface-level associations, seeking to uncover the underlying mechanisms, causal relationships, and contextual intricacies that shape the phenomena under investigation (Toyon, 2021). The mixed research approach seamlessly aligns with this objective by integrating the strengths of both qualitative and quantitative methodologies.

This dual focus on exploration and explanation aligns impeccably with the mixed research approach, where qualitative and quantitative methods operate synergistically to offer a multifaceted perspective (Wipulanusat et al., 2020). The synergy between qualitative and quantitative data in a mixed research approach enhances the validity and reliability of the study's findings. By leveraging data from different sources, the research can provide a more comprehensive and robust interpretation of the relationships between variables. This approach is particularly apt for explanatory studies as it goes beyond merely establishing connections, striving to unravel the 'why' and 'how' behind these connections (Othman et al., 2020). Ultimately, the mixed research approach in explanatory studies ensures a more thorough exploration and explanation of complex research questions, contributing to a richer understanding of the phenomena under investigation.

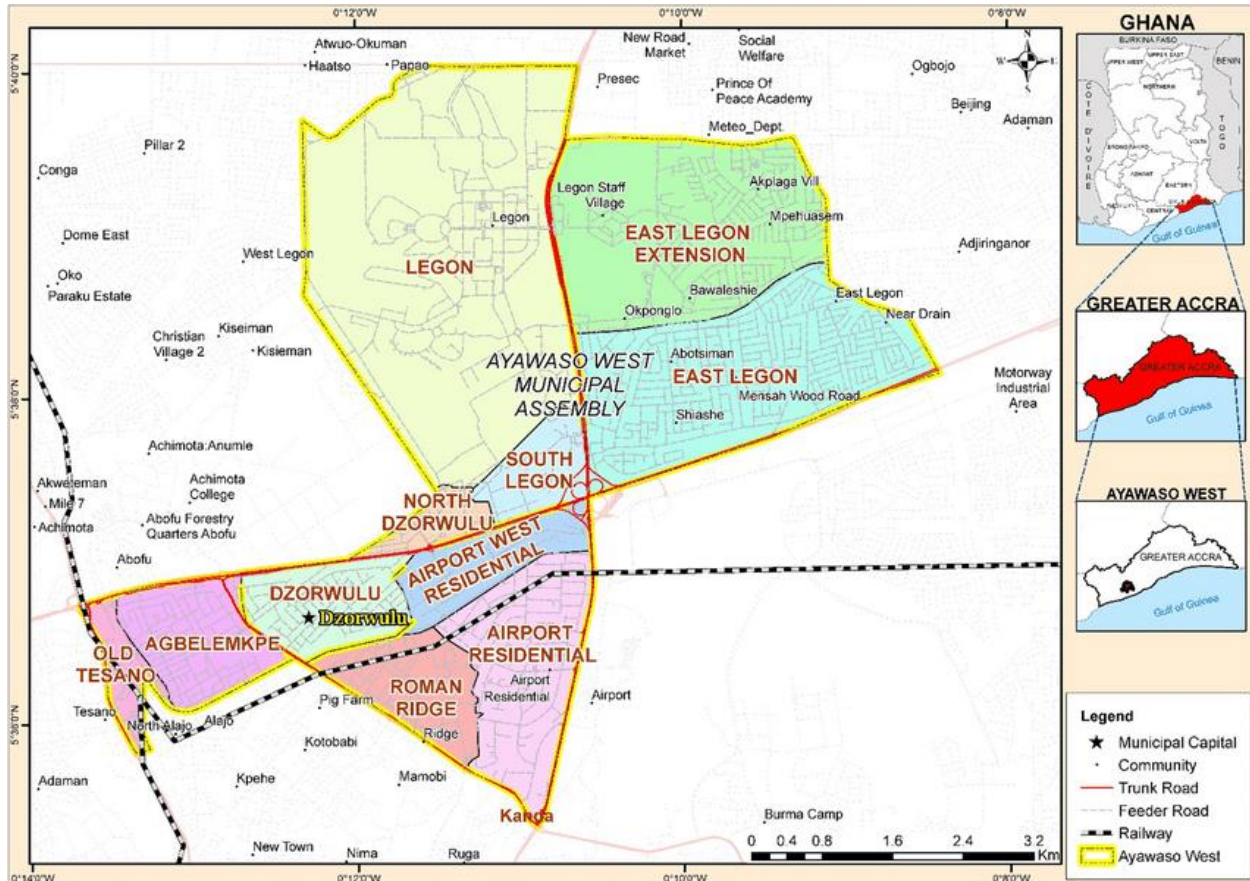
4.5 Research Sample

The research population was all the public junior high schools actively operating in the country. According to the Ghana Statistical Service (2018), there are a total of 15,804 Junior High Schools in Ghana. The research sample is a subsection of the population that researchers use to realise their research objectives. A sample is needed because employing all subjects in the population will be unfeasible. Sampling provides a manageable and practical way to gather data without the logistical challenges and resource constraints associated with studying an entire population (Onwuegbuzie & Collins, 2017). In the case of this research, selecting a representative sample from the total population of 15,804 Junior High Schools in Ghana is a judicious approach, enabling the researcher to draw meaningful conclusions while optimising available resources.

Sampling is of critical concern in research since it involves the careful selection of a subset of units from the population, ensuring that the chosen sample is representative enough to generalise findings to the broader population (Emerson, 2015). The process of sampling involves making strategic decisions about how to obtain a sample that accurately reflects the characteristics and diversity of the entire population. Hence, three public junior high schools in the Ayawaso West district of the Greater Accra Region of Ghana were selected. Even though these schools are in urban areas, it is proven that students come from low socio-economic backgrounds where little emphasis is placed on

education. Students support guardians or parents by performing domestic chores as well as undertaking economic activities. A map of the district is presented in Figure 4.1 below.

Figure 4.1: Ayawaso West District Map



Source: Abrokwhah et al. (2021)

The sample was limited to second-year and third-year Junior High Schoolers because they are well adjusted, know the challenges in the terrain, and were able to devote ample time for the research. The first-year students had just commenced the Junior High School programme and needed to adjust. Hence, the first-year students were not in a position to share experiences or give the needed information about Junior High School experiences. The third-year students were, however, in their final year and thus preparing for the first main external examination, which was required to usher them into the Senior High School. They were relatively busy with academic work and mock examinations. All second and third-year students participated in the survey, however, only the second-year students participated in the focus group discussion.

In the first phase, all JHS Form 2 and Form 3 students from the three public schools constituted the sample of 500 students for the study. For the second phase of the research, students were purposively selected based on their level of resilience and academic performance for focus group discussion. Teachers from the three schools at the Junior High School level who were willing and available were interviewed.

4.5.1 Sampling Procedure and Technique

A non-probability sampling technique was used to select research subjects for this study. With this approach, the members of a specific population do not all have an equal likelihood of being a part of a research sample. A non-probability sampling technique is beneficial when there is a large, broad population and randomisation is not likely due to scarce resources. In this case, subjective methods were employed in determining which participants would be involved in the sample. The criteria helpful in identifying the appropriate non-probability sampling technique are the type and aim of the study (Etikan, 2016). There are several types of non-probability sampling techniques available, each with its advantages and limitations. However, the two main categories of non-probability sampling techniques are convenience sampling and purposive sampling.

Convenience sampling involves selecting participants based on their ease of access and availability, making it a practical choice when logistical constraints and limited resources are prevalent (Scholtz, 2021). While this method may lack the rigorous randomness associated with probability sampling, it is often employed for its expediency and cost-effectiveness. Convenience sampling is suitable when the goal is to gather data from readily accessible subjects quickly, and it aligns with the pragmatic nature of studies where exhaustive sampling is impractical (Chandler & Shapiro, 2016).

On the other hand, purposive sampling involves selecting participants based on specific characteristics or criteria deemed relevant to the research objectives (Campbell et al., 2020). This method is particularly advantageous when the researcher seeks to include individuals with unique insights or experiences essential to understanding the phenomenon under investigation. Purposive sampling allows for a targeted selection that aligns with the study's goals, ensuring that participants possess the desired attributes or characteristics (Ames et al., 2019).

In determining the appropriate non-probability sampling technique for this study, the researcher carefully considered the type and intent of the research, weighing the advantages and limitations of each method. The chosen technique was applied judiciously to meet the study's objectives while acknowledging the inherent trade-offs associated with non-probability sampling in terms of generalisability and representation.

After reviewing the available options, a purposive sampling technique was employed. It was a non-probability sampling technique known as judgement sampling. The procedure for sampling is centred on the researcher's judgement as well as knowledge of the setting. Etikan (2016) said sampling is the thoughtful selection of participants based on the qualities of the individual. Andrade (2020) posited that purposive sampling has specific elements that align with the purpose of the research and apply to the study by allowing the researcher to answer the research questions.

The benefit of purposive sampling is a study of a population with a particular interest. It is important to know that the purposiveness of a sample limits the external validity to the segment of the population with similar features as the sample selected (Andrade, 2020). Although this technique has certain limitations, such as reduced generalisability, its distinct advantage lies in its ability to focus on specific characteristics or attributes relevant to the research inquiry. Purposive sampling allows researchers to strategically choose participants who possess unique insights, experiences, or characteristics crucial to addressing the specific objectives of the study (Barratt & Lenton, 2015). This targeted approach enhances the depth and relevance of the data collected, offering a more profound understanding of the phenomenon under investigation.

However, the limitation of reduced external validity cannot be overlooked. Since purposive sampling involves selecting participants based on specific criteria, the findings may not be easily generalised to the broader population. The sample represents a particular segment with shared characteristics, and caution must be exercised in extrapolating the results to populations with different attributes (Klar & Leeper, 2019).

Another potential limitation is the risk of bias in the selection process. The subjective nature of purposive sampling requires careful consideration of the researcher's judgment

and the potential influence of preconceptions (Barratt et al., 2014). Researchers employing this technique must document their selection criteria transparently and acknowledge the limitations of generalisability (Etikan, 2016). However, in this study, the researcher worked to reduce bias by purposefully selecting participants for the focus group discussion using clearly defined criteria (refer to Section 4.9 – Main Study) from the academic records and the resilience scale R-MATS as well as employing the mixed method to facilitate exploration of the breadth and depth of the relationship between resilience and academic performance of Ghanaian public junior high school students.

Despite these limitations, purposive sampling remains a valuable tool in research, particularly when in-depth exploration of specific characteristics or phenomena is paramount. It offers a nuanced perspective that complements other sampling methods and provides valuable insights that may not be achievable through more generalised approaches (Lynn, 2016). Researchers must weigh the advantages and drawbacks carefully, selecting the sampling technique that best aligns with the goals and nature of the study.

4.5.2 Delimiting Factors

Certain delimitations were established in conducting this study to ensure feasibility within the research scope. These delimitations were necessary to maintain the integrity of the study and ensure that the research objectives could be effectively met within the given constraints.

This study was limited to Form 2 and Form 3 students (8th and 9th graders). These students were chosen because they had spent more than a year at the Junior High School level and were familiar with the challenges and experiences unique to these levels.

The research was conducted exclusively in public schools, which have peculiar and varied challenges. Focusing on public schools provided a more uniform data collection and analysis context. Additionally, the study area was geographically confined to the Ayawaso West district in the Greater Accra Region of Ghana, providing insights into urban public schools.

The focus group did not include less resilient students and those with low academic performance because these characteristics did not align with the research objectives.

4.6 Data Collection Method

The data collection method details how the researcher intends to collate the requisite data for executing the study and answering the research questions. Four primary data collection methods were used for this research: questionnaires (R-MATS scale), academic records, focus groups and interviews.

- Questionnaires (R-MATS scale): This instrument was used to measure resilience in this study. This scale was developed by Mampane (2010) through rigorous testing and validation to determine the resilience of an individual and measure the risk and protective factors of resilience. This tool was initially designed to measure resilience in Black South African middle school adolescents in township schools. The final R-MATS questionnaire comprised two main sections: A and B. Section A comprised 11 statements that required "yes" or "no" responses. Section A explored the risk factors of respondents. This section had a Cronbach's Alpha of 0.566. Section B, on the other hand, comprised 24 statements that evaluated the resilience characteristics of students based on a four-point Likert-type scale: "true all the time", "true most of the time", "untrue most of the time", and "untrue all the time". This section produced a Cronbach's Alpha of 0.818 in the original study. For this study, the section B of the R-MATS was used (Mampane, 2010).
- R-MATS is a scale consisting of four factors. The first factor is confidence and internal locus of control. This has been described as believing in one's ability, being hopeful and concentrating on an individual's inner assets of strength and potential to achieve future goals. (Mampane, 2010, p. 123). The second factor is social support. It indicates a consciousness of self-worth, cognisance, security, and understanding of being accepted. It encompasses knowing how to obtain help when needed and using the help appropriately. It also involves taking up responsibilities and using them for healthy development and attaining competence, as well as the plasticity in finding solutions to problems. (Mampane, 2010, p. 124). The third factor is toughness and commitment. The items revealed

the drive for hard work geared towards accomplishment, an obligation to achieve goals, and being resolute in one's ability by harnessing one's strength and taking charge of the future. (Mampane, 2010, p. 125). The fourth factor is achievement orientation. The items are centred on upholding your strength and the drive to accomplish success. It emphasises responsibility and the determination to achieve goals set for the future. (Mampane, 2010, p. 126). In the designing of R-MATS, the following steps were taken:

1. The definition of resilience was expounded and operationalised. Questions were composed based on the operationalised definition and available questionnaires, resulting in a pool of 80 -100 items.
2. Two separate groups of students from Grade 8 (JHS form 2) and Grade 9 (JHS form 3), respectively, each set made up of a male and female, were required to self-evaluate a 40-item set of questions selected.
3. Feedback received from the first pilot study resulted in the rewording of items and the production of two questionnaires on comparable features of resilience.
4. Two questionnaires were produced for the second pilot study. In Section A, both forms of the questionnaire have 11 similar items. Section B consists of 34 items on resilience features. Each class that participated in the second pilot study received both types of shuffled questionnaires. Feedback received from students was incorporated into the design. Item analysis was conducted on the two types of questionnaires to enhance item excellence and as a basis to remove all vague items and reword confusing items for better understanding.
5. A second pilot study was conducted to ascertain the lucidity and applicability of the questionnaires. It was also needed to determine the specific items to be put together for the final scale in the main study.
6. Item analysis was conducted on the two types of questionnaires to enhance item excellence and as a basis to remove every vague word

and reword confusing items. All items in Section A were maintained for the final questionnaire, but some changes were made in Section B, resulting in a reduction in the number of items. For Section B, the questionnaire with the higher Cronbach's alpha was utilised for the main study. (Mampane, 2010). Section B of RMATS was employed for this study.

- Academic Records: These records were used by the researcher to evaluate the academic performance of the students who participated in this study. The academic records were obtained from the management of the three schools that participated in the research.
- Focus Groups: There were three focus groups. The focus groups were formed based on participants' levels of resilience obtained from the survey and the average academic performance score from the academic records. Two focus groups were formed in School 3, and one focus group was formed in School 1. Each focus group comprised of 8 -10 students.
- Interviews: Interviews were conducted in the three public schools. Teachers in the Junior High School division who were willing and available, were interviewed, guided by the interview guide.

Table 4.1 below shows the participants from each of the schools who took part in the survey: R-MATS, the number of focus groups per school, and the number of teachers interviewed per school.

Table 4.1: Participants from the Schools

Format	Participants	School 1	School 2	School 3	Total
R-MATS	Students	167	111	220	498
Focus groups	Students	0	1	2	3
Interviews	Teachers	3	2	3	8

Refer to Table 5.1 for the distribution of participants in each form (grade) in the three schools.

Refer to Table 6.1 for the composition of males and females in each focus group

4.6.1 Focus Groups

Focus groups are qualitative research data collection instruments designed to facilitate group discussions among participants with shared characteristics or experiences (Gill & Baillie, 2018). Unlike interviews, which involve one-on-one interactions, focus groups bring together a small group of individuals to explore a particular topic or issue in depth. This method encourages dynamic interaction and dialogue among participants, allowing for the exchange of diverse perspectives, insights, and experiences within the group (Gundumogula, 2020). Focus groups are particularly valuable for exploring collective norms, attitudes, and perceptions that emerge through group dynamics and interactions. By harnessing the synergy of group discussion, focus groups can uncover shared beliefs, consensus, or dissent among participants, shedding light on underlying social dynamics and cultural influences related to the research topic (Rosenthal, 2016). Moreover, focus groups offer researchers the opportunity to observe non-verbal cues, group dynamics, and interpersonal interactions, providing additional layers of understanding beyond verbal responses alone (Tausch & Menold, 2016). In this research, focus group discussions were held with students in two schools. The researcher held three focus group discussions in two schools. Refer to Table 4.1

4.6.2 Interviews

The primary purpose of interviews is to gather in-depth qualitative data by engaging participants in structured or semi-structured conversations (Peters & Halcomb, 2015). Interviews provide researchers with the opportunity to delve deeper into participants' perspectives, experiences, and insights related to the research topic. Through open-ended questioning and active listening, interviews allow researchers to explore complex issues, uncover underlying motivations, and elucidate nuances that may not be captured through quantitative methods alone (Majid et al., 2017). Additionally, interviews facilitate the establishment of rapport and trust between the researcher and the participant, creating a conducive environment for candid and honest responses (Glegg, 2018). By probing into the thoughts, feelings, and perceptions of individuals, interviews contribute valuable qualitative data that enriches the understanding of the research phenomenon.

Moreover, interviews offer flexibility in tailoring questions to the specific context and needs of each participant, enabling researchers to adapt their approach based on the evolving dynamics of the conversation (Thunberg & Arnell, 2021). Interviews were conducted with teachers at the junior high school level for each of the three public schools. Refer to Table 4.1

4.7 Data Analysis Techniques

The data that this study produces must be duly analysed to extract meaningful insights that can inform the study's objectives, contribute to the existing body of knowledge, and offer practical implications. Data analysis thus serves as a crucial step in unlocking the full potential of the collected information and transforming it into knowledge (Nassaji, 2015). By rigorously analysing the data, researchers can identify patterns, trends, and relationships that may take time to be apparent. This process involves employing appropriate statistical or qualitative techniques, depending on the nature of the data and the research questions. Through systematic analysis, the study aims to uncover the underlying structures and meanings within the dataset, providing a deeper understanding of the phenomena being studied (Stuckey, 2015).

Furthermore, data analysis is pivotal in validating the study's hypotheses or research questions. The results derived from the analysis contribute empirical evidence, allowing researchers to draw conclusions and make inferences about the relationships between variables or the significance of observed patterns (Ali & Bhaskar, 2016). This evidentiary support enhances the credibility of the study and strengthens the basis for any recommendations or implications drawn from the findings.

Ultimately, effective data analysis not only facilitates a comprehensive interpretation of the research outcomes but also enables the dissemination of valuable insights to the academic community and relevant stakeholders (Sutton & Austin, 2015). By translating raw data into meaningful knowledge, researchers can contribute to the advancement of their field, inform decision-making processes, and provide practical guidance for addressing real-world challenges (Houghton et al., 2015). In essence, the thorough analysis of data is the key to unlocking the full potential of a study's outcomes and ensuring its impact on both academic discourse and practical applications.

Since this study employed a mixed research approach, a dual data analysis strategy was employed to explore both the qualitative and quantitative aspects of the collected data comprehensively. The collated questionnaires were analysed using descriptive analysis. This technique involved summarising and presenting the main features of the quantitative data, providing a clear and concise overview of the participants' responses. Descriptive statistics, such as frequencies, percentages, means, and standard deviations, were calculated to capture the central tendencies and variability within the dataset. This quantitative analysis method is particularly useful in uncovering patterns, trends, and key characteristics of participants' attitudes, behaviours, and perceptions. For this study, the average response on the R-MATS scale served as the primary indicator for classifying participating students as resilient or less resilient.

For the qualitative data, thematic analysis was employed as the chosen method for extracting meaningful patterns and themes from the gathered information. Thematic analysis is a widely utilised qualitative research technique that involves identifying, analysing, and reporting patterns or themes within the data set (Castleberry & Nolen, 2018). This method allowed a systematic exploration of the qualitative data to uncover recurrent ideas, concepts, or sentiments. By employing thematic analysis, the researcher aimed to categorise and interpret the rich narrative content generated through focus group discussions and interviews. (Vaismoradi et al., 2016). This approach facilitated a nuanced understanding of the experiences, perspectives, and insights shared by the participants, contributing to a comprehensive exploration of the complex interplay between resilience and academic performance among public junior high school students in Ghana. The identified themes served as a foundation for drawing meaningful conclusions and implications from the qualitative findings, adding depth and context to the overall research outcomes.

First introduced by Joffe and Yardley in the early 2000s, thematic analysis has since become a widely adopted and flexible qualitative research method (Clarke & Braun, 2016). This approach involves identifying, analysing, and reporting patterns, themes, or categories within the data, allowing researchers to derive meaningful insights and interpretations. The thematic analysis offers a systematic and in-depth exploration of

qualitative data, making it particularly suitable for understanding complex phenomena (Kiger & Varpio, 2020), such as the relationship between resilience and academic performance among public junior high school students in Ghana. The process typically involves familiarisation with the data, generating initial codes, searching for themes, reviewing and refining themes, defining and naming themes, and finally, producing a comprehensive narrative that captures the essence of the data (Swain, 2018). By employing thematic analysis in this study, the aim was to uncover underlying patterns and recurring ideas within the qualitative data, facilitating a nuanced understanding of the experiences and perspectives of the participants. This methodological choice enhances the rigour and depth of the qualitative investigation, contributing valuable insights to the overarching research inquiry (Lawless & Chen, 2018). The steps required to execute this data analysis technique are reflected below.

1. Familiarisation with the Data

During the initial step of thematic analysis, researchers immerse themselves in the qualitative data, aiming to develop a deep familiarity with its content. This stage is critical as it sets the foundation for the entire analysis. However, it carries the risk of bias if researchers approach the data with preconceived notions. Therefore, the importance lies in adopting an open and unbiased mindset. Researchers should conduct multiple readings, note initial impressions, and remain attentive to potential areas of interest. A thorough familiarisation ensures a nuanced understanding of the context and complexities within the dataset, laying the groundwork for subsequent analytical steps (Dawadi, 2020).

2. Generating Initial Codes

The process of generating initial codes involves breaking down the data into meaningful segments. This step is crucial as it allows for the identification of patterns and recurring elements. However, researchers need to be mindful of subjectivity and bias during coding. The critical aspect here is to employ a systematic approach, ensuring transparency and consistency. Open coding is particularly valuable in this phase as it can accommodate the emergence of new themes, fostering a holistic

exploration of the data and preventing premature closure of potential insights (Cassol et al., 2018).

3. Searching for Themes

Identifying themes involves a systematic search for overarching patterns and connections within the coded data. This step is pivotal for uncovering the central elements that contribute to the research question. However, researchers must approach this phase with diligence to make sure to notice important patterns. Thorough exploration ensures that a comprehensive understanding of the data emerges, preventing the omission of critical information (Nowell et al., 2017). Remaining open to unexpected themes enhances the potential for rich and nuanced findings.

4. Reviewing and Refining Themes

After identifying potential themes, the next step involves reviewing and refining them. This phase demands critical analysis to enhance the rigour and trustworthiness of the analysis. Subjectivity in theme refinement poses a potential challenge, highlighting the importance of clear criteria for inclusion and exclusion. Establishing inter-coder reliability through peer debriefing and consistency assessments ensures that themes are consistently identified and refined (Crowe et al., 2015). This step contributes to the reliability and validity of the emerging themes.

5. Defining and Naming Themes

Defining and naming themes is a crucial aspect that adds clarity and coherence to the analysis. However, this step requires careful consideration to avoid imposing researchers' interpretations onto the data. Clear definitions and names enhance the communicative power of themes. Incorporating participant quotes or verbatim excerpts adds authenticity and grounding to participants' voices, reinforcing the credibility and richness of the themes (Gower et al., 2019).

6. Producing a Comprehensive Narrative

In the final step, researchers synthesise the themes into a comprehensive narrative. While this stage aims to create a coherent representation of the findings, there is a risk of oversimplification or misrepresentation. Transparency in reporting is paramount,

acknowledging the limitations and uncertainties in the findings. A comprehensive narrative provides a nuanced and contextually rich representation of the qualitative data, offering valuable insights and contributing to the overall understanding of the research question (Peel, 2020).

4.8 Data Collection Procedure

The research meticulously adhered to a systematic data collection procedure, beginning with the imperative step of gaining ethical clearance from the Ethics Committee of the Faculty of the University of Pretoria. This application for ethical clearance involved submitting the research proposal with the required documents and receiving approval, as evidenced by the attached Ethical Clearance Certificate (see Appendix). Additionally, as per the requirements in Ghana, permission was sought from the Greater Accra Regional Director of Education at the Ghana Education Service, a critical step in obtaining access to local public schools in the Greater Accra region.

The permission granted by the Regional Education Office, detailed in the attached Appendix, facilitated the research within the Ayawaso West Municipality. The School Improvement Support Officer (SISO) for the Municipal played a pivotal role by introducing the researcher to the Heads of the Schools. Copies of the permission letter were presented to the school heads, who then directed specific teachers to assist in the data collection process.

The target group for the research comprised all Junior High School (JHS) Form 2 and three students in the three schools. All Form 2 and Form 3 students completed the R-MATS questionnaire. Since Form 3 students were preparing for the Basic Education Certificate Examination (BECE), only Form 2 students were involved in the focus group discussions. Teachers who taught at the JHS levels in the three schools were selected according to the criteria for teacher interviews.

Parental consent played a central role in student participation. Permission was sought from parents using the Parent Consent Form, which was taken home by students to explain the research purpose and obtain consent. An overwhelming response indicated parental support.

An information session facilitated by the support staff was conducted with students in each school. This session included a detailed explanation of the research requirements, emphasising the need for academic performance records and ensuring anonymity through coding. Subsequently, students were allowed to complete the Assent Form. This applied to students whose parents had given consent to participate in the study.

For the teacher component, the purpose and expected outcomes of the research were explained to willing JHS teachers. All participating teachers were required to read and sign the Teacher Consent Form, formalising their agreement to be part of the research. Face-to-face interviews with teachers were also conducted, with each session lasting an average of forty-five minutes. This comprehensive data collection procedure ensured ethical compliance, participant understanding, and the acquisition of valuable insights for the research.

4.8.1 Pilot Study

The purpose of a pilot study is to conduct a small-scale, preliminary investigation before the main research endeavour to assess the feasibility, validity, and reliability of the research design, data collection instruments, and procedures. Thus, to achieve this, the researcher selected a school which was not part of the three schools earmarked for data collection and generation in the main study and administered the R-MATS questionnaire. This enabled the researcher to evaluate the practicality and effectiveness of the scale in capturing the desired information about students' resilience levels. The pilot study allowed the researcher to test the appropriateness of the questionnaire for the specific context and demographic characteristics of the target population. Analysing the responses obtained during the pilot study provided insights into the clarity of the questionnaire items, potential ambiguities, and the overall comprehensibility of the instrument for the students. Based on feedback from participating students, the researcher found that the scale was very understandable and well-received, demonstrating a high level of clarity in its presentation. Thus, no significant modifications were made to the main study.

4.9 Main Study

Before administering the R-MATS questionnaire, a clear and transparent communication strategy was employed to inform the assisting teachers about the purpose and

methodology. It was explicitly stated that the average academic score of each student was very important.

The academic records received from management were in the form of assessment sheets. An assessment sheet captures the records of all students' performance in each subject concisely. It details the scores of students in three classroom assessments, usually taken in the 4th, 8th, and 12th week. These three assessments constituted 50% of the student's final mark for the term. The end-of-term examination also contributed 50% of the entire mark for each student. The sum of the three assessments (50% of the total mark) and 50% of the end-of-term examination mark provides the total mark of the student for each subject. The academic records received from the management of the three schools were on the assessment sheets. These were the scores obtained by all students in Form 2 and Form 3 who participated in the survey (R-MATS). The assessment sheets were for the four core subjects for all students: Mathematics, English, Social Studies and Integrated Science. Table 4.2 shows how the average academic score of a student is generated from the academic records as captured on the assessment sheet for each subject.

Table 4.2: Academic Records of Students

Classroom Assessment			End-of-Term Examination
First Assessment	Second Assessment	Third Assessment	14 th week
4 th week	8 th week	12 th week	
All classroom assessments contribute 50% of student's marks for each subject.			The end-of-term examination contributes 50% of student's marks for each subject.
"A"			"B"
Total marks "C" ¹			

1. Students' total mark "C" for each subject is a sum of "A" and "B" above.

The sum of the marks of each of the four core subjects, Mathematics, English, Social Studies and Integrated Science, as in “C” in Table 4.2 above was divided by four to obtain the average mark (academic performance) for each student. This was done because the marks would be correlated with their resilience level, necessitating the use of a unique code for each student across the three schools. This coding system served a dual purpose, ensuring both confidentiality and anonymity in the subsequent data analysis. By matching the resilience scores with academic records using the unique code, the research maintained a stringent commitment to ethical considerations, safeguarding the privacy of each student involved. The importance of this coding system cannot be overstated, as it not only protected the identity of participants but also facilitated the correlation necessary for the subsequent determination of focus group composition and the analysis of results.

The process of forming focus groups involved meticulous criteria that aimed to capture the nuanced interplay between resilience levels and academic performance. Three distinct focus groups were delineated: high resilience and high academic performance, high resilience and low academic performance, and less resilience and high academic performance. These categories were strategically organised across the schools to ensure diversity in perspectives and experiences. In School 3, focus group members with high resilience and high academic performance, as well as less resilience and high academic performance, were identified. In School 1, students with high resilience and low academic performance were selected. Refer to Table 4.3 below for criteria for focus group selection and the schools where specific focus group discussions were held. The table shows the limits for high and low academic performance as well as the limits for high resilience and less resilience needed for the organisation of each focus group.

Table 4.3: Criteria for Focus Group Selection

School	Focus Group	Criteria for selection into the groups using means
3	High resilience and high academic performance	Means greater than 3.5 Academic performance above 70%
2	High resilience and low academic performance	Means greater than 3.5 Academic performance below 50%
3	Less resilience and high academic performance	Means less than 3.0 Academic performance above 60% (I had to reduce the academic performance from 70 to 60% for this group and keep the means at less than 3.0) to be able to get students for this group)

The criteria for each group were carefully defined, with R-MATS means greater than 3.5 and academic performance above 70% for the high resilience and high academic performance group, means greater than 3.5 and academic performance below 50% for the high resilience and low academic performance group, and means less than 3.0 and academic performance above 60% for the less resilience and high academic performance group. Adjustments to the criteria, such as lowering the academic performance threshold to 60% for the last group, were made to ensure the feasibility of forming these groups. Gender considerations were also factored into the composition, further enriching the diversity of each focus group. The active involvement of teachers in identifying outspoken students who could contribute meaningfully to the discussions ensured the validity and depth of insights derived from the focus groups. This meticulous process of forming focus groups not only upheld ethical standards but also contributed to the richness and depth of the subsequent qualitative analysis.

The initiation of each focus group meeting was marked by a deliberate and comprehensive orientation. The researcher reiterated the purpose of the gathering, ensuring that all participants were aligned with the objectives of the discussion. The confidential nature of the information shared during the session was emphasised, fostering a sense of trust and openness among the participants. This preface was crucial in creating a safe space for students to express their thoughts and experiences freely.

To foster a sense of unity and encourage open communication, chairs were arranged in a circular pattern. This seating arrangement facilitated visibility among participants, promoting a collective atmosphere conducive to sharing and collaborative engagement. The intentional design of the physical space aimed to break down hierarchical barriers and create a level playing field for all participants.

Each student was further assigned a unique number to ensure confidentiality and anonymity. These numbers, placed in front of each student, served as a discreet identifier, replacing the use of pseudonyms. The incorporation of this numerical system was a strategic measure to protect the privacy of the participants while allowing for individual contributions to be tracked throughout the discussion. This meticulous attention to confidentiality not only upheld ethical standards but also encouraged a sense of security among students, enabling them to share their experiences more candidly.

The focus group discussions were guided by a well-structured focus group guide. This guide served as a framework for posing questions centred around resilience, academic performance, and the strategies employed to navigate challenges related to both aspects. The questions were designed to elicit rich and nuanced responses, encouraging participants to reflect on their own experiences and share insights into their coping mechanisms. The systematic use of the focus group guide ensured that the discussions remained focused on the key themes of the research, providing a comprehensive understanding of the interplay between resilience and academic performance from the students' perspectives. Overall, the careful orchestration of these elements in the focus group sessions contributed to the depth and quality of the qualitative data collected.

In addition to the above, teachers at the junior high school level, with different years of experience and who were willing and available, were interviewed for their perspectives on resilience and academic performance (refer to Table 6.7).

4.10 Rigour of the Study

Rigour in research essentially refers to the meticulous and systematic adherence to high standards and methodological precision throughout the research process. Rigour is a crucial element in ensuring the reliability, validity, and overall quality of research findings (Johnson et al., 2020). It encompasses various aspects of the research design, data collection, analysis, and interpretation, aiming to minimise biases and errors while enhancing the robustness of the study. Without rigour, there is a tendency for research findings to lack credibility and for the study's conclusions to be questioned or invalidated (Cypress, 2017). Rigorous research design is foundational, involving careful consideration of variables, sampling techniques, and methodologies to ensure that the study is well-conceived and capable of providing meaningful insights.

According to researchers, the absence of rigour jeopardises the scientific integrity of the entire research endeavour (Harley & Cornelissen, 2020). Researchers widely agree that rigour is not merely a procedural formality but a fundamental principle that underpins the trustworthiness of research outcomes (Morse, 2015). Rigorous research design establishes the groundwork for methodological soundness, allowing the study to withstand scrutiny and contribute substantively to the existing body of knowledge. Since the qualitative insights gleaned from the execution of the research design will be the primary basis for realising the stated research objectives, adhering to qualitative rigour is of immense importance to this research. This refers to the rigorous application of qualitative research principles throughout the study, encompassing the processes of data collection, analysis, and interpretation. Qualitative rigour ensures that the findings derived from the qualitative aspects of the research are credible, trustworthy, and robust (Harley & Cornelissen, 2020).

This study employed Lincoln and Guba's (1985) evaluative criteria for qualitative research rigour for the qualitative data. The framework has been widely recognised as a comprehensive and systematic guide to ensure the rigour and trustworthiness of

qualitative research. This tool serves to measure trustworthiness, as the naturalist's equivalent for validity and reliability, and the research outcomes the study proffers. It focused on four main dimensions: credibility, transferability, dependability, and confirmability. Consequently, later on, authenticity was included. (Guba & Lincoln, 1989). The applicability and effectiveness of these criteria have been demonstrated across various qualitative research contexts, making them a valuable resource for researchers committed to ensuring the quality of their studies.

- **Credibility:** This ensures that the research findings and the subsequent conclusions are true. It deals with the question, "Was the study conducted using standard procedures typically used in the indicated qualitative approach?" or "Was an adequate justification provided for variation?" (Connelly, 2016, p. 435) A prolonged engagement technique was utilised to realise this objective. The researcher integrated information to gain deep cognisance of the research context by spending extended time in the field. It is equally important to check information obtained with different clusters with similar challenges. (Lincoln & Guba, 1985)
- **Transferability:** This ensures that research outcomes can be easily applied to other contexts. Hence, it determines the degree to which the research will be beneficial to people in other locations. A thick description technique was used for this dimension to facilitate transferability. (Polit & Beck, 2014). Here, the researcher encouraged a holistic as well as detailed description of experiences acquired in their locations and environments that influence the phenomenon. (Connelly, 2016)
- **Dependability:** This involves the consistency of research findings. An external audit of process logs was employed for this dimension. Process logs include activities on the field, specific choices made, and field notes. (Connelly, 2016) it was also stated that dependability offers the researcher the opportunity to leverage the experiences and expertise of an external scholar to foster the validity and accuracy of the research outcomes.
- **Confirmability:** This serves as a precautionary measure to ensure that the researcher's bias or self-interests do not overly influence the study's findings. Reflexivity served as the means for realising this objective. (Leedy & Ormrod,

2015) The researcher requested clarification from participants on ambiguous statements and organised debriefing sessions. Connelly (2016) also mentioned that field notes could be assessed by contemporaries and peer-debriefing sessions held with an experienced qualitative researcher in other cases. With this approach, the researcher systematically and frequently reviews the knowledge construction process and limits the undue influence of research bias that may erroneously sway the study's findings. (Lincoln & Guba, 1985)

- **Authenticity:** This depicts the extent to which varied truths about the lives of a specific group of individuals are accurately revealed by research. Connelly (2016) indicated that authenticity includes obtaining the right sample to produce a comprehensive report. Furthermore, it is a unique gain exclusive to qualitative research through the provision of in-depth insight into an occurrence documented to reveal its importance to readers.

Overall, leveraging this framework contributes to the enhancement of the research study's overall quality and trustworthiness. By systematically applying Lincoln and Guba's evaluative criteria, the study gains a methodological roadmap that ensures the robustness of the qualitative data and, consequently, the validity and reliability of the research outcomes. By adhering to these criteria, researchers can navigate the complexities of qualitative research and produce findings that are both internally valid and externally applicable and contribute to the cumulative knowledge in their respective fields. The model's enduring significance lies in its ability to uphold the integrity of qualitative research, fostering a robust and reliable approach to studying the multifaceted aspects of human experiences and social phenomena.

4.11 Ethical Considerations

The role of ethical considerations in research is to safeguard the rights, well-being, and dignity of individuals participating in the study, as well as to ensure the integrity and credibility of the research process (Reijers et al., 2017). Ethical considerations are a cornerstone of responsible and accountable research, guiding researchers in conducting studies that adhere to moral principles and legal standards. Moreover, ethical considerations dictate that researchers minimise potential harm to participants and

prioritise their well-being throughout the research journey (Golder et al., 2017). This includes protecting participants from physical or psychological harm, maintaining confidentiality, and ensuring their right to privacy. Researchers are obligated to weigh the potential benefits of the study against any foreseeable risks, striving to maximise the former while minimising the latter (Cascio & Racine, 2018).

Ethical guidelines also extend to issues of fairness, justice, and equity, emphasising the need to avoid exploitation and ensure that research benefits are distributed equitably among participants and the broader community. Ethical considerations further encompass the responsible conduct of research, demanding honesty, transparency, and integrity in all phases of the research process (Armond et al., 2021).

Ethical considerations in research are grounded on the principles of respect for autonomy, beneficence, justice, and integrity. These foundational principles guide researchers in conducting studies that prioritise the welfare of participants, uphold the integrity of the research process, and contribute responsibly to the advancement of knowledge (Östman & Turtiainen, 2016). The principle of respect for autonomy underscores the importance of recognising individuals as autonomous agents capable of making informed decisions about their participation in research. Researchers are obligated to obtain informed consent, provide participants with comprehensive information about the study and allow them the freedom to voluntarily consent or decline without coercion (Greenwood, 2015).

Beneficence emphasises the ethical obligation to maximise benefits and minimise potential harm to participants. Researchers must carefully weigh the risks and benefits of their studies, ensuring that the potential benefits are significant and justifiable while taking measures to minimise any potential harm (Gilabert, 2016). This principle extends beyond individual participants to include the broader community, emphasising the responsibility to contribute positively to societal well-being.

Justice dictates the fair and equitable treatment of participants, ensuring that the burdens and benefits of research are distributed fairly. Researchers must be mindful of potential biases in participant selection, considering factors such as inclusion and exclusion criteria to avoid undue exclusion or exploitation of specific groups (Chenneville & Schwartz-

Mette, 2020). Additionally, justice entails equitable access to the benefits derived from research outcomes, avoiding any form of discrimination.

Integrity is a foundational principle that encompasses honesty, transparency, and the responsible conduct of research. Researchers are expected to report their findings accurately, honestly acknowledge limitations, and disclose any conflicts of interest (Engelbrecht et al., 2017). Upholding the integrity of the research process builds trust among participants, peers, and the broader community, fostering a culture of credibility and reliability in the field of research. Together, these ethical principles provide a comprehensive framework that guides researchers in conducting studies that are respectful, beneficial, just, and conducted with the utmost integrity (Suri, 2019). Adhering to these principles ensures that research contributes positively to both individual participants and society while upholding the ethical standards and responsibilities inherent in the pursuit of knowledge.

Collecting data from minors can prove to be a rather challenging undertaking. However, the researcher received the proper authorisation before the students were approached. Firstly, permission from the Ghana Education Service regional office was obtained. This permission letter informed the institutions of my intentions and indicated that approval had been given to embark on this study. Next, the researcher gave copies of the permission letter from the regional education office to the headmasters and mistresses of the selected schools. Finally, the researcher explained the importance of the study and disclosed necessary information to participants on the study as emphasised by Kumar (2014).

The Junior High Schoolers who participated in the survey filled out the informed consent form. Before this, I also made my intentions known to the parents of the students and explicitly requested their consent by filling out the parent consent form before their children could partake in the study. This study adhered to the ethical principles of nonmaleficence, respect for autonomy and beneficence. The researcher ensured that none of the actions performed throughout the entirety of the study directly or indirectly harmed the research subjects. The rights of all participants to make independent private decisions were respected. In addition to the above, the rights of all participants were

protected from harm. (Jahn, 2011; Kumar, 2014; Leedy & Ormrod, 2015). Participants were informed that the data collected was solely for academic purposes. It is envisaged that the findings drawn for this study will provide empirical evidence for formulating support mechanisms that promote resilience and enhance academic performance amid the myriad challenges present in students' teaching and learning environments.

Participation in this study was entirely voluntary. The data collected from the students was treated with the utmost level of confidentiality. Under no circumstance were the names or other personally identifiable information of the students shared with an unauthorised third party. Thus, all responses gleaned from the research sample were kept anonymous. (Kumar, 2014; Leedy & Ormrod, 2015). Debriefing sessions were held after focus group discussions and interview sessions. Leedy and Ormrod (2015) mentioned the importance of debriefing after each session to deal with unforeseen and distressing feedback. A psychologist was made available to address any emotional difficulties that could arise as students shared their challenges /experiences.

The ethical considerations that this study adhered to are explored in more detail below.

Informed Consent

In upholding ethical standards, the research meticulously adhered to the principles of informed consent. Parents of the participating students were required to sign parental consent forms granting permission for their children to be part of the study. Prior to involving students directly, an assent form was presented to the students after obtaining parental consent. This ensured that students, despite being minors, were informed about the research and had the opportunity to express their willingness to participate. Furthermore, teachers who played a crucial role in the study by providing insights through interviews were also required to sign a teacher consent form. Throughout this process, the details of the research process were transparently communicated to all concerned parties. This included emphasising the absence of any risk elements and assuring the availability of a psychologist to address any emotional challenges that might arise. This comprehensive approach to informed consent was aimed at promoting transparency, trust, and the ethical treatment of all participants.

Autonomy

Respecting the autonomy of both students and teachers was a paramount ethical consideration in the research. Students were granted the right to decide whether they wanted to be part of the study or not. Moreover, they were assured of their right to freely express themselves during the study without fear of intimidation from the Head of School, staff, or the researcher. Similarly, teachers were afforded the right to decide whether to participate in the study or not. During teacher interviews, they were given the freedom to express their opinions on the questions posed. Upholding autonomy safeguards the integrity of the research process and ensures that participants engage willingly and authentically in the study.

Confidentiality

Maintaining confidentiality was a key ethical obligation throughout the research. Every effort was made to safeguard the identity of all participants, both students and teachers. Participants' names were not disclosed in any part of the study, contributing to the anonymity of those involved. Additionally, academic records used to determine the average scores of participants were anonymised, further ensuring that individual achievements or challenges remained confidential. This commitment to confidentiality not only protects the privacy of participants but also fosters an environment of trust, encouraging open and honest participation.

Beneficence

Ensuring the well-being of all participants was a central concern in the research, embodying the principle of beneficence. In the focus group discussions with students, a safe and supportive environment was created, allowing students the opportunity and liberty to express their challenges and the strategies they employ to cope without feeling uncomfortable. This approach prioritised the emotional and psychological welfare of the students, highlighting a commitment to beneficence. By providing a platform for participants to share their experiences openly and without fear of judgment, the research aimed to contribute positively to their overall well-being.

4.12 Conclusion

The chapter presented the research methodology that was employed in obtaining and analysing data for this study. It focused on the research paradigm, design, approach, the sampling procedure, as well as the data collection and analysis procedures, the rigour of the study and ethical considerations. The research paradigm guiding this research was the pragmatist worldview, which aligned with the mixed method approach utilised. The research design is explanatory research design using sequential timing. Data was taken from three public junior high schools in the Ayawaso West District, with the quantitative phase preceding the qualitative phase. The quantitative phase involved the completion of a survey questionnaire, and the qualitative phase involved the formation of three focus groups (students) and teacher interviews in the three schools. The next chapter will present the findings of the study.

CHAPTER FIVE: QUANTITATIVE DATA PRESENTATION AND ANALYSIS

5.1 Introduction

In this chapter, the findings realised after executing the research methodology are presented. The overarching objective of this study was to explore the relationship between resilience and academic performance of Ghanaian Junior High School students. Employing a pragmatist worldview and an exploratory sequential research design, I sought to unearth critical insights into the interplays between these two constructs. Accordingly, a mixed research approach was adopted to realise this research inquiry. Three Junior High Schools in the Ayawaso West District of Ghana were selected for this study. The study was conducted in two main phases: the quantitative phase and the qualitative phase. The findings generated from each endeavour are detailed in the coming sections. The quantitative data was analysed using SPSS version 25.

5.2 Quantitative Analysis – First Phase

The first analysis phase focused on assessing the resilience levels and academic performance of students of the three selected schools. This was a preliminary step to understand the baseline levels of resilience and academic achievement within the sampled population, providing foundational data for further investigation into the relationship between these variables and identifying potential patterns. Five hundred (500) students were sampled to partake in this phase of the research, but 498 students responded. The RMATS questionnaires served as the primary data collection tool. In addition to data obtained from the survey using the RMATS, academic records in the form of assessment sheets were the main resource used to obtain the average academic score of students. The findings realised from this phase of analysis are presented below.

5.3 Demographic Analysis

The study achieved a 99.6% response rate. A breakdown of the respondent distribution is detailed in Table 5.1 below

Table 5.1: Respondent Distribution

School	Form 2	Form 3	Total
1	80	87	167
2	50	61	111
3	107	113	220
Total	237	261	498

The table provides a breakdown of respondents by school and grade level (Form 2 and Form 3), as well as the total number of respondents. In School 1, there were 80 respondents in Form 2 and 87 respondents in Form 3, making a total of 167 respondents from this school. In School 2, there were 50 respondents in Form 2 and 61 respondents in Form 3, totalling 111 respondents. School 3 had 107 respondents in Form 2 and 113 respondents in Form 3, amounting to 220 respondents from this institution. Overall, there were 237 respondents in Form 2 and 261 respondents in Form 3, resulting in a total of 498 respondents across all schools. This distribution provides insight into the composition of the respondent sample, showing the number of students from each grade level and school involved in the study.

The first eight items of the R-MATS questionnaire focused on the demographic indicators of the respondents. These were gender, grade, age, date of birth, ethnicity, accommodation status, family size, and religious affiliation. The findings derived from this section are presented below.

Table 5.2: Demographic Indicators of Respondents (Students)

Item	Frequency	Percentage
Gender		
Male	239	48.0
Female	259	52.0
Total	498	100
Grade (JHS level)		
Form 2	237	47.6
Form 3	261	52.4
Total	498	100
Ethnicity		
Akan	159	32.0
Ga/Adangbe	108	21.7
Ewe	168	33.7
Dagbani	19	3.8
Dagaare	5	1.0
Kasem	1	.2
Nzema	3	.6
Others	35	7.0
Total	498	100
Accommodation		
Wooden Kiosk	108	21.7
Uncompleted Building	23	4.6
Rented House	193	38.8
Owned House	174	34.9
Total	498	100
Family Size		
Less than or equal to 5	244	49.0
Between 6 and 8	175	35.1
More than or equal to 9	79	15.9
Total	498	100
Religious Affiliation		
Christian	452	90.8
Moslem	36	7.2
Others	10	2.0
Total	498	100
Age		
Mean	15.6	
Median	15	
Std dev.	1.4	
Variance	1.9	
Min	12	
Max	20	

The table presents demographic data collected from 498 respondents. In terms of gender distribution, females slightly outnumber males, constituting 52% of the sample compared to 48% of the sample for males. This relatively balanced gender representation indicates a fair inclusion of both genders in the study.

Regarding grade levels, respondents were divided almost equally between Form 2 and Form 3, with 47.6% in Form 2 and 52.4% in Form 3. This distribution ensured representation from both grade levels, enabling insights into resilience across different stages of junior high school education. Ethnically, most respondents were from the Akan ethnic group, comprising 32.0% of the sample. Ga/Adangbe and Ewe followed, making up 21.7% and 33.7% of the sample, respectively. The presence of multiple ethnic groups in the sample reflected the diverse cultural landscape of the study population.

In terms of accommodation, the most common living situation among respondents was in a rented house, accounting for 38.8% of the sample, followed closely by living in an owned house at 34.9%. Wooden kiosks and uncompleted building accommodations were less common, making up 21.7% and 4.6% of the sample, respectively. This distribution described the different housing conditions experienced by respondents. Family size varied among respondents, with nearly half of them (49.0%) coming from families with less than five members. Families with between six and eight members constituted 35.1% of the sample, while those with more than nine members represented 15.9%. This variation in family size provided insights into the socio-economic backgrounds of the respondents.

Regarding religious affiliation, most respondents identified as Christian, making up 90.8% of the sample, while Muslims accounted for 7.2%. This religious distribution reflected the dominant religious landscape in the study area, indicating the religious diversity among respondents. In terms of respondents' age, the findings showed that the mean age of respondents was 15 years, the maximum age was 20 years, and the minimum was 12 years. Overall, the table offered a comprehensive overview of the demographic characteristics of the respondent sample, providing valuable insights into their backgrounds and contexts, which was essential for understanding resilience and academic performance among Ghanaian junior high school students.

5.4 Quantitative Findings

The primary purpose of the quantitative analysis was to assess the level of resilience and academic performance of students from the sampled schools. Items 9 to 32 on the R-MATS scale measured resilience, assessing the construct across four primary dimensions: confidence and internal locus of control, social support, toughness and commitment, and achievement orientation. Item responses were close-ended: on a Likert scale of 1 to 4 where 1 = untrue all the time, 2 = untrue most of the time, 3 = true most of the time, and 4 = true all the time. Academic performance, on the other hand, was measured based on their average scores across four core subjects: Mathematics, English, Social Studies, and Integrated Science. These four core subjects are mandatory for all students and are used as the criteria for grading. Students were classified into less resilience and high resilience groups based on their average response on the resilience scale. Respondents who had resilient mean values of 3.5 and higher were identified as highly resilient students, and those with a resilience score of 3 or less were characterised as less resilient. The highest score for resilience on the Likert scale is 4. This value is multiplied by 24 (number of items on the scale), and the product is divided by 24 to obtain the highest mean value of 4. The lowest value on the scale is 1. With academic performance, students with an average score of 60% and higher were classified as high performers, while those with an average score below 50% were considered to be low performers. Based on the results, three focus groups were formulated: high resilience/high academic performance (HR/HAP), high resilience/low academic performance (HR/LAP), and less resilience/high academic performance (LR/HAP).

Validity and Reliability Analysis of Research Instruments

The validity and reliability of research instruments or internal consistency were measured using Cronbach's alpha value. Validity relates to the accuracy of data obtained from a given study. Reliability, on the other hand, is the ability of a research instrument to yield consistent results in varied studies (Creswell, 2014). The R-MAT scale has 24 items, and the reliability test produced a Cronbach's alpha value of .754. See Table 5.3 below.

Table 5.3: Cronbach's Alpha Value

Tool	Number of items	Cronbach Alpha
R-MATS Scale 1	24	.754

5.4.1 R-MATS Scale Assessment of the Factors Influencing Students' Resilience Using SPSS Version 25

The R-MATS scale was one instrument used to measure resilience in this study. The instrument consists of 24 items. The results for this section are analysed using mean scores, variance and frequency percentage. The table below presents the results.

Table 5.4: Assessing the Factors Influencing Students' Resilience Using the R-MATS Scale

No	Variables/Questions	TRUE ALL THE TIME ⁴	TRUE MOST OF THE TIME	UNTRUE MOST OF THE TIME	UNTRUE ALL THE TIME	Mean	Variance
		4	3	2	1		
1	I have an adult to talk to at home, who listens to me	44.2	32.3	15.3	8.2	3.12	.91
2	I make sure that I do my classwork and homework	65.5	26.1	5.6	2.8	3.54	.53
3	I do my best to find the right answer to a problem	46.4	44.8	7.2	1.6	3.36	.472
4	My teacher works hard to help me understand my work better	70.5	22.7	5.4	1.4	3.62	.429
5	I am in control of what happens to me	38.4	38.2	16.1	7.4	3.07	.838
6	I feel safe and loved at home, they want to know if I am OK	62.2	20.5	12	5.2	3.4	.795
7	Doing well at school is very important to me	85.5	11.2	2	1.2	3.81	.266
8	My future and success depend on my hard work	85.5	10	2.6	1.8	3.79	.325
9	I believe that I have good talents	77.9	16.9	3.2	2	3.71	.393

No	Variables/Questions	TRUE ALL THE TIME ⁴	TRUE MOST OF THE TIME	UNTRUE MOST OF THE TIME	UNTRUE ALL THE TIME	Mean	Variance
		4	3	2	1		
10	I do not allow people to stop me from trying to do my best in my work	63.7	30.5	4.4	1.4	3.56	.419
11	I believe that I am able to do better	74.7	21.5	3	.8	3.7	.319
12	Even when my problems are just too much, I do not give up trying to make it work	50	39.4	7.8	2.6	3.45	3.86
13	I know someone at school who cares about me and I can talk to	36.9	33.1	15.1	14.9	2.92	1.11
14	I use different ways to work out a difficult problem.	34.9	47.8	11.8	5.4	3.12	.617
15	There is at least one person I can talk to who listens to me and encourages me to do my best	62.7	22.9	9.6	4.8	3.43	.729
16	I believe that one day things will be better for me	87.8	10.4	1.2	.6	3.85	.186
17	I do not like to be absent from school, I hate to miss the teaching	68.5	24.1	4.4	3	3.58	.514
18	I know a good person whose behaviour is an example to me	52.2	32.7	8.2	6.8	3.3	.787
19	Even when I don't understand in class I don't give up trying	55.8	36.9	5.4	1.8	3.47	.467
20	My teachers made me see that I am good with my work and can do well in class	57.4	30.5	8.8	3.2	3.42	.615
21	My teachers support me to aim high and to think of my bright future	69.3	21.1	6.2	3.4	3.56	.577
22	Teachers explain a lot in class, they give extra examples.	75.3	18.9	3.8	2.0	3.67	.417
23	My future is in my hands, nobody can take that away from me	86.9	8	3.4	1.6	3.8	.323
24	I am a tough person	51.2	31.5	9.2	8	3.26	.86

From Table 5.4, respondents in this study mostly rated resilience characteristics as positive, which is to say, “true all the time” and “true most of the time” using the scale categories. The categories “untrue most of the time” and “untrue all the time” were

selected by a few respondents. For example, Item 1 in the table, “I have an adult to talk to at home, who listens to me”, received 76.5% ratings in true all the time and true most of the time categories. Also, close to 24% of respondents pointed to the contrary in their responses. Concerning Item 2, “I make sure that I do my classwork and homework”, 92% of respondents rated responses in true all the time and true most of the time categories. It also shows that about 8% of respondents said they did not do their homework in one way or another. Teacher support is an important factor in the resilience of students. The item “My teacher works hard to help me understand my work better” received 93% ratings in true all the time and true most of the time categories. Only a few respondents had contrary opinions. This response suggests that the students acknowledged the role of teachers in their less privileged conditions.

Item 8 states, “My future and success depend on my hard work,” which was rated 95.5% by the students in true all the time and true most of the time categories. This item highlights the personal confidence of the students to work hard for a better future. Only about 4.5% of respondents stated the opposite. Consistently, in this study and responses to the resilience questionnaire, respondents rated the two positive categories over the other categories. For example, item 15, which states, “There is at least one person I can talk to who listens to me and encourages me to do my best”, repeats the trend with about 85% responses in positive categories.

This analysis also employed mean scores and variance in analysing research data. Some of the items with low variance, according to the findings, include Item 7 (.266), Item 8 (.325), Item 9 (.393), Item 11 (.319), Item 16 (.186) and Item 23 (.323), all these items have variances below 0.4, considered low with respect to data distribution. A large

variance implies a larger deviation of data from the mean, while a small variance corresponds to a smaller deviation from the mean. The results from the analysis showed that the items with low variances generally had some of the lowest percentage scores in the “untrue all the time” and “untrue most of the time” response categories. For instance, Item 16, with the lowest variance of .186, obtained only a 1.8% score in these categories. Also, item 7 (.266) had 3.2% in these categories, while item 11(.319) received 3.8% in these categories. Looking at the mean scores, the analysis revealed that items with the highest percentage scores in the “true all the time” and “true most of the time” categories had the highest mean scores.

5.4.1.1 Resilience Characteristics and Characteristics Placing Resilience at Risk Derived from R-MAT Scale

Stemming from the analysis in the previous section, the major resilient characteristics can be grouped as highlighted in Table 5.5 below.

A major area in which respondents demonstrate resilience from the analysis is shown in their desire to achieve personal academic success and future goals (Mampane, 2010). For example, the responses to Item 8 having higher scores in the “true all the time” and “true most of the time” categories demonstrate that respondents believe in diligent academic work for future success (Future and success depend on hard work, scoring 85.5% + 10%). Item 10, “Doesn’t allow people to stop him/her from doing best work”, received 63.7%, + 30.5%, highlighting dependence on personal initiatives and commitment. Item 2, “Ensures to do classwork and homework”, received 65.5% + 26.1% scores, while Item 7, “Doing well at school is very important”, received 85.5 + 11.2% scores. Additional items in this category were Item 17, “Loves attending school”, which

received 68.5%+24.1%, and Item 23, “Sure of own future, certain nobody can take it away”, which also received 86.9+8% scores.

Table 5.5 : Resilience Characteristics and Characteristics Placing Resilience at Risk Derived from R-MATS Scale

Item	Resilience Characteristics (Protective factors)	True all the time %	True, most of the time	Characteristics placing resilience at risk (Risk Factors)	Untrue all the time %	Untrue most of the time %
1	Has adult who listens and whom to talk to at home	44.2	33.3	Lacks adult who listens and whom to talk to at home	15.3	8.2
2	Ensures to do classwork and homework	65.5	26.1	Does not ensure to do schoolwork and homework	5.6	2.8
3	Does best to find answers to a problem	46.4	44.8	Doesn't do best to find answers to problems	7.2	1.6
4	Teacher works hard to help in understanding work	70.5	22.7	Teacher is not seen to work hard to help in understanding the work	5.4	1.4
5	Has sense of control	38.4	38.2	Lacks sense of control	16.1	7.4
6	Feeling safe and loved at home with family enquiring about wellbeing (OK)	62.2	20.5	Feeling unloved, unsafe and family fail to enquire about wellbeing	12	5.2
7	Doing well at school is very important	85.5	11.2	Doing well at school is not seen as very important	2	1.2
8	Future and success depend on hard work	85.5	10	Future and success is not seen to depend on hard work	2.6	1.8
9	Believes in having talents	77.9	16.9	Sceptic about having talents	3.2	2
10	Doesn't allow people to stop him/her from doing best work	63.7	30.5	Allows people to stop him/her from doing the best work	4.4	1.4
11	Believes in own ability to do better	74.7	21.5	Sceptic about own ability to do better	3	8
12	Never gives up trying to make it work, even with many problems	50	39.4	Tends to give up trying when problems	7.8	2.6

Item	Resilience Characteristics (Protective factors)	True all the time %	True, most of the time	Characteristics placing resilience at risk (Risk Factors)	Untrue all the time %	Untrue most of the time %
13	Knowledge of someone who cares and whom to talk to at school	36.9	33.1	are many or too much Unaware of someone who cares and whom to talk to at school	15.1	14.9
14	Uses different strategies (ways) to solve a problem	34.9	47.8	Does not use different strategies (ways) to solve a problem	11.8	5.4
15	Knowledge of a teacher to talk to, who listens and encourages best performance	62.7	22.9	Unaware of a teacher to talk to and who can listen and encourage best performance	9.6	4.8
16	Believes in a better future	87.8	10.4	Has no hope in the future	1.2	.6
17	Loves attending school (no truancy)	68.5	24.1	Truancy	4.4	3
18	Has good role model	52.2	32.7	Has no good role model	8.2	6.8
19	Does not give up trying, even when work is hard to understand	55.8	36.9	Gives up trying when work is hard to understand	5.4	1.8
20	Teacher helps with understanding academic ability and strengths	57.4	30.5	No teacher helps with understanding own academic ability and strengths	8.8	3.2
21	Teacher support in setting academic goals and plans for the future	69.3	21.1	No support from teachers in setting academic goals and planning for the future	6.2	3.4
22	Teachers give more explanations and examples in class	75.3	18.9	Teachers do not give more explanations and examples in class.	3.8	2
23	Sure of own future, certain nobody can take it away	86.9	8	Unsure of future, other people might influence one's future	3.4	1.6
24	Resilience, hardiness (tough person)	51.2	31.5	Less-resilient, sees self as weak	9.2	8

Respondents acknowledged the critical role of teachers in helping students develop resilience, which showed in the total scores of several related items. These include item 20, “Teacher helps with understanding academic ability and strengths”, receiving 57.4% + 30.5%; item 21 “, Teacher support in setting academic goals and plans for the future”, receiving 69.3% + 21.1%; Item 4, “Teacher works hard to help in understanding work”, receiving 70.5% + 22.7% and Item 21 “Teacher support in setting academic goals and plans for the future” with a 69.3% + 21.1% score.

Another aspect of the analysis is seen in how respondents find solutions to problems in developing resilience. Positive responses to several items reflect this strategy of building resilience. They include Item 1, listening to adults (44.2% + 33.3%); Item 12, “Never surrendering a problem” (50% + 39.4%); and Items 19 and 14, using several ways to solve a problem (34.9% + 47.8%).

Furthermore, respondents demonstrated personal realisation and conviction in their talents for building resilience. For example, Item 11, “Believes in own ability to do better”, with 74.7% + 21.5%; Item 24, which relates to the respondent being a tough person with a 51.2% + 31.5% score; and Item 9, asking about respondent belief in talents, with a 77.9 + 16.9% score. The last group of positive resilience measures concerned strategies relating to personal safety, relying on others such as Item 6, “Feeling safe and loved at home with family enquiring about well-being (OK)”, Item 13, “Knowledge of someone who cares and whom to talk to at school” and Item 18 about having a role model.

5.4.2 Descriptive Statistics of R-MATS 24 Sub-Scales

The R-MATS 24 scale, as it was originally used, had four sub-scales or factors (Mampane, 2010). These were Factor 1, confidence and internal locus of control; Factor

2, Social Support; Factor 3, toughness and commitment; and Factor 4, achievement orientation. The various sub-scales were subjected to descriptive statistics analysis to measure the resilience scores of the respondents in this study.

Table 5.6: Descriptive Statistics of Sub-Scales

Sub-scale/factor	N	Min	Max	Mean	Standard. Deviation.	Variance
Confidence and ILC	498	2.25	4	3.5	0.332	0.883
Social support	498	1.25	4	3.15	0.60	1.45
Toughness& Commit	498	1.25	4	3.44	0.67	1.8
Achievement orientation	498	1.25	4	3.57	0.44	0.76

The respondents' scores for resilience in this study ranged from 1 (low) to 4 (high). To assess the resilience characteristics of respondents, the mean scores of 3 and 4, were classified as high resilience, and mean scores less than 3 as less resilience. From the table, the mean scores of the sub-scales are all more than 3. The mean score for the confidence and internal locus of control sub-scale was 3.5 and standard deviation of 0.332; the social support sub-scale had a mean score of 3.15 and a standard deviation (SD) of 0.60; the toughness and commitment sub-scale recorded a mean score of 3.44 and SD = 0.67. The achievement and orientation sub-scale had a mean score of 3.57 and SD=0.44. From the analysis, the respondents showed high resilience with respect to all the factors, with the achievement orientation factor scoring highest, followed by the confidence sub-scale.

5.4.3 Independent T-Test Results for Resilience Types and Gender of Respondents

The table below analyses the relationship between resilient characteristics using the factors and gender of respondents.

Table 5.7: Independent T-Test Results for Resilience Types and Gender of Respondents

Sub-Scale/Factor	MALE		FEMALE	
	MEAN	SD	MEAN	SD
Confidence and ILC	28.37	2.84	28.41	2.46
Social support	12.77	2.28	12.38	2.55
Toughness& Commitment	13.5	2	14.01	3.2
Achievement orientation	14.19	1.79	14.41	1.72

The results in the table analysed the resilience of respondents in relation to gender using the R-MATS 24 sub-scales (Mampane, 2010). In assessing the relationship between gender and resilience of respondents based on the factors, the results showed females scored higher (M=28.41, SD=2.46) than males (M=28.37, SD=2.84) on confidence and internal locus of control. Also, regarding toughness and commitment, the results showed females scored higher (M=14.01, SD=3.2) than males (M=13.5, SD=2). Female respondents also outscored male respondents in achievement orientation: females (M=14.41, SD=1.72) to males (M=14.19, SD=1.79). However, males scored higher than females in social support: males (M=12.77, SD=2.28) and females (M=12.38, SD=2.55).

5.4.4 Independent T-Test Results of Academic Performance Scores and Gender of Respondents

The independent t-test technique was used to assess the mean academic performance scores in relation to the gender of respondents. The results are demonstrated in Table 5.8 below.

Table 5.8: Independent T-Test Using Academic Performance Scores and Gender

SUBJECT	MALE		FEMALE	
	MEAN	SD	MEAN	SD
MATHEMATICS	38.51	18.95	39.38	19.03
SOCIAL STUDIES	51.7	18.5	55.4	18.8
INTEGRATED SCIENCE	42.6	17.3	45.03	16.6
ENGLISH LANGUAGE	49.3	21.3	51.9	21
TOTAL AVE. SCORE	45.4	16.6	48	16.1

The table compares the academic performance scores between males and females using the independent t-test tool. For mathematics, the results showed that female students had higher mean percentage scores (M=39.38, SD=19.03) relative to males (M=38.51, SD=18.95). The results for social studies also showed that female students had higher mean percentage scores (M=55.4, SD=18.8) relative to males (M=51.7, SD=18.5). The integrated science results also showed that female students had higher mean percentage scores (M=45.03, SD=16.6) relative to males (M= 42.6, SD=17.3). Consistently, female students outperformed their male counterparts, as shown in the results for the English language with females (M=51.9, SD=21) relative to males (M=49.3, SD=21.3). The overall average score also showed females outperforming males: females (M=48, SD=16.1), Males (M=45.4, SD=16.6).

5.4.5 Correlation Analysis Between Demographic Characteristics and Academic Performance Variables

A correlation matrix is a statistical analytical technique used in inferential statistics to measure the association between variables. Correlation analysis is a common bivariate technique that mostly measures the association between two variables (Huser, 2017). The study used a correlation technique to analyse the association between selected demographic variables and academic performance scores of study respondents. The correlation results are shown in the table below.

Table 5.9: Correlation Matrix using Demographic Characteristics and Academic Performance

	Gender	Age	Accommodation	Family size
Maths	-.023	-.341**	.001	-.084
P-value	.633	.000	.976	.076
Soc. Stud	-.101*	-.434**	.093*	-.075
P-value	.035	.000	.048	.108
Integ Science	-.071	-.344	0.20	-.055
P-value	.138	.000**	.671	.243
English	-.063	-.495**	.096*	-.143**
P-value	.188	.000	.038	.002
Average total score	-.079	-.476**	0.69	-.101*
P-value	0.94	.000	.139	.029

The findings showed a moderate, negative and significant correlation between mathematics scores and respondents' age ($r = -.341$, $P < .001$). In terms of social studies, the correlation shows a low, negative and significant relationship between social studies score and gender ($r = -.101$, $P < .05$). Also, a strong, negative and significant correlation was found between social studies score and respondents age ($r = -.434$, $P < .001$). The correlation between social studies score and accommodation type is low, positive and significant ($r = .093$, $P < .05$). Concerning integrated science score, the correlation shows a moderate, negative and significant relationship between integrated science score and

age ($r = -.344$, $P < .05$). The results for English language showed a strong, negative and significant correlation between English language score and respondents age ($r = -.495$, $P < .001$). Also, the correlation between English language score and accommodation type is low, positive and significant ($r = .096$, $P < .05$). Furthermore, the correlation between English language score and family size is low, negative and significant ($r = -.143$, $P < .005$). With respect to the average total score of respondents, the analysis showed a strong, negative and significant correlation with respondents' age ($r = -.476$, $P < .001$) and a low negative and significant relationship between average total score and family size ($r = -.101$, $P < .05$).

5.4.6 Factor Analysis Using Principal Component Analysis

The primary questionnaire used for the study, the resilience questionnaire (R-MATS), was subjected to factor analysis to determine if individual items within a construct have the same underlying dimension or explain the construct. This is done by analysing if the items listed under a construct clustered together meaningfully based on their correlation coefficients (Field, 2017). In the context of this study, the factor analysis helped to identify the category of factors contributing to resilience among adolescent students. The outputs produced included a correlation matrix table, Kaiser–Meyer–Olkin (KMO) and Bartlett test, commonalities table, total variance explained table, the scree plot, rotated component matrix table, etc.

From the outputs, the correlations table showed satisfactory results and the absence of multicollinearity. Correlations were less than 0.8. The coefficients were also not too low. The absence of multicollinearity was also confirmed by the determinant value of $5.54E-006 > .00001$. The KMO test for sampling adequacy was .809, which is more than

the required 0.5. This shows the sample size used was adequate. Bartlett's test also produced a significant result with $P < .0001$, indicating the suitability of data for factor analysis (Field, 2017).

The total variance explained in the table below shows the number of factors that were actually extracted. The total variance table below, using the extraction sum of squares loadings area, shows seven factors were extracted, and they accounted for 49.59% of the total variance.

The rotated component matrix shows the actual loadings of the variables. It shows the factor that each item loads the highest. From the results, the variables R-MATS 15, 1, 6, and 13 load highest on Factor 1, while the variables R-MATS 3, 22, 11, 19, and 10 load mostly on Factor 2. The items R-MATS 23 and 16 load on Factor 3 while R-MATS 20, 4 and 21 together load on Factor 4, among others. The complete variables list and components matrix are shown in Table 5.10 below:

Table 5.10: Rotated Component Matrix

	1	2	3	4	5	6	7
RMAT15	.718						
RMAT1	.705						
RMAT6	.657						
RMAT13	.495						
RMAT3		.688					
RMAT22		.558					
RMAT11		.518					
RMAT19		.505					
RMAT10		.446					
RMAT23			.727				
RMAT16			.697				
RMAT20				.671			
RMAT4				.644			
RMAT21				.608			
RMAT24					.600		
RMAT18					.570		
RMAT14					.470		
RMAT17					.454		
RMAT12							
RMAT9						.582	
RMAT5						.561	
RMAT8						.533	.405
RMAT2							.754
RMAT7							.451

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalisation.^a

a. Rotation converged in 10 iterations.

Table 5.11: Rotated Factor Loading with Variables

RMAT Number	Variable	1	2	3	4	5	6	7
15	There is at least one person I can talk to who listens to me and encourages me to do my best	.718						
1	I have an adult to talk to at home, who listens to me	.705						
6	I feel safe and loved at home, they want to know if I am OK	.657						
13	I know someone at school who cares about me and I can talk to	.495						
3	I do my best to find the right answer to a problem		.688					
22	Teachers explain a lot in class, they give extra examples.		.558					
11	I believe that I am able to do better		.518					
19	Even when I don't understand in class I don't give up trying		.505					
10	I do not allow people to stop me from trying to do my best in my work		.446					
23	My future is in my hands, nobody can take that away from me			.727				
16	I believe that one day things will be better for me			.697				
20	My teachers made me see that I am good with my work and can do well in class				.671			
4	My teacher works hard to help me understand my work better				.644			
21	My teachers support me to aim high and to think of my bright future				.608			
24	I am a tough person					.600		
18	I know a good person whose behaviour is an example to me					.570		
14	I use different ways to work out a difficult problem.					.470		

RMAT Number	Variable	1	2	3	4	5	6	7
17	I do not like to be absent from school, I hate to miss the teaching					.454		
12	Even when my problems are just too much, I do not give up trying to make it work							
9	I believe that I have good talents						.582	
5	I am in control of what happens to me						.561	
8	My future and success depend on my hard work						.533	.405
2	I make sure that I do my classwork and homework							.754
7	Doing well at school is very important to me							.451

In Table 5.11, the rotated factor loadings are shown together with their respective variables. The various factors can be described based on their attributes. They are Factor 1: social support and sense of worth; Factor 2: self-efficacy and high aspirations; Factor 3: optimistic perspective; Factor 4: positive self-concept; Factor 5: toughness, commitment and flexibility.; Factor 6: confidence and internal locus of control; and Factor 7: achievement orientation

Table 5.12: Description of the 7-Factor Loadings

Factor	Name
1	Social support and sense of worth
2	Self-efficacy and high aspirations
3	Optimistic perspective
4	Positive self-concept
5	Toughness, commitment and flexibility
6	Confidence and internal locus of control

5.5 Conclusion

This chapter provided an in-depth analysis of the quantitative phase of the study, offering crucial insights into the factors that influence resilience and their correlation with academic performance. Data collection was primarily conducted using the R-MATS survey and academic record assessment sheets to compute students' average scores. The analysis covered demographic details, descriptive and inferential statistics (including independent t-tests and correlations), and a principal component analysis of the R-MATS, which revealed seven distinct factor loadings.

The statistical examination indicated significant resilience levels characterised by factors such as confidence, social support, toughness, and achievement orientation. Among the resilience factors, achievement orientation emerged as the strongest, followed by confidence. Notably, female students demonstrated higher resilience scores across the sub-scales compared to their male counterparts, except for the social support measurement. Additionally, females outperformed males in overall academic performance. These findings suggest that students with stronger support systems exhibited higher levels of resilience, which in turn positively influenced their academic performance. The results underscore the importance of fostering resilience, particularly through support systems, to enhance student outcomes.

CHAPTER SIX: QUALITATIVE DATA PRESENTATION AND ANALYSIS

6.1 Introduction: Qualitative Analysis – Second Phase

The second phase of the data analysis assessed responses from students and teachers on the relationship between resilience and academic performance. From the students' perspective, relevant groups were identified in the sampled schools and focus groups were formulated to gain the requisite data to realise the research objectives. Data from In-depth responses that were retrieved from the teachers were also analysed to understand the phenomenon from a multi-level perspective. Thematic analysis served as the primary data analysis technique. The findings this endeavour generated are presented in the coming sections.

6.2 Student Focus Groups

The focus group discussion groups comprised of only Form 2 students. The Form 3 students were busy preparing for their external examination. Based on the stated research objectives, three groups were required to realise the primary research objectives of this study: High resilience/high academic performance, high resilience/low academic performance, and less resilience/high academic performance. The description of the focus groups is presented in Table 6.1 below.

Table 6.1: Focus Group Description

Focus Groups	Size	Gender Distribution
Less resilience/ high academic performance (resilience < 3, performance > 60)	8	3 males and 5 females
High resilience/high academic performance {resilience > 3.5, performance > 70}	10	5 males and 5 females
High resilience/low academic performance (resilience > 3.5, performance < 50)	10	5 males and 5 females

Table 6.1 outlines the composition of the focus groups formed based on predetermined criteria related to resilience levels and academic performance. Three distinct groups were established to fulfil the primary research objectives: High resilience/high academic performance, high resilience/low academic performance, and less resilience/high academic performance. In the "High resilience/high academic performance" group, comprising ten participants, the criteria for inclusion were individuals demonstrating resilience levels exceeding 3.5 on the scale and academic performance scores surpassing 70%. This group consisted of an equal distribution of five males and five females.

The "High resilience/low academic performance" group also consisted of ten participants and was defined by individuals exhibiting resilience levels above 3.5 while scoring below 50% in academic performance. Similar to the first group, this group comprised an equal distribution of five males and five females. Lastly, the "Less resilience/high academic performance" group, consisting of eight participants, was characterised by individuals with resilience levels falling below 3 on the scale but demonstrating academic performance exceeding 60%. This group included three males and five females.

Unique numbers (discreet identifier) were used in place of real names to identify research participants to ensure anonymity: HH1 – HH10, for all participants in the high resilience, high academic performance group, HL1 – HL10, for all participants in the high resilience, low academic performance group, and LH1 – LH8, for all participants in the less resilience, high academic performance group.

6.3 Thematic Analysis 1 (Students)

Thematic analysis served as the primary data analysis technique for assessing the responses generated from the focus groups. This involved a six-pronged approach to evaluating qualitative data. The method entails familiarisation with the data, generating initial codes, searching for themes, reviewing and refining them, defining and naming themes, and producing a narrative capturing the essence of the data. By employing thematic analysis, the study aimed to uncover underlying patterns within the qualitative data, facilitating a nuanced understanding of participants' experiences and perspectives, thus enhancing the rigour and depth of the qualitative investigation.

The focus group interview guide served as a structured framework designed to facilitate in-depth discussions and elicit rich insights from participants regarding their experiences, perceptions, and attitudes related to resilience and academic performance. The guide comprised several questions which explored various aspects, including challenges faced as a student, strategies for overcoming challenges, defining characteristics of a good student, management of academic life; factors influencing academic performance such as sickness, broken homes, and bullying; perceived assistance needed to improve performance, the impact of school environment on performance, personal definitions of success, and self-perception of toughness.

The focus groups are categorised into three main groups, namely, FG1–Less Resilience High Academic Performing Students (**LH**), FG2–High Resilience High Academic Performing Students (**HH**) and FG3–High Resilience Low Academic Performance (**HL**). The first focus group, **LH** students, comprised eight (8) participants; the second group, **HH** students, comprised ten (10) participants; and the last group, **HL** students, comprised ten (10) participants who shared their views, experiences, and insights regarding their resilience levels and academic achievements.

The information gleaned from students and teachers was organised under four main themes. The three focus groups will be discussed sequentially under each of the four main themes beginning with the less resilience high academic performance group, followed by the high resilience high academic performance group and ending with the high resilience low academic performance group. (Each of the three focus groups answered the same set of questions). Likewise, findings from the interview with teachers will also be discussed under the same four main themes. Table 6.2 describes the different focus groups.

Table 6.2: Focus Group Description

Theme	Description
Theme One: Challenges and how they affect academic performance	The theme explored numerous challenges that students experienced and their effects on academic performance. These challenges cut across a wide range of issues. Understanding these multifaceted factors impacting academic performance is crucial for addressing students' needs effectively.
Theme Two: Strategies used to overcome challenges	The theme examined the strategies employed by students to mitigate or overcome the academic obstacles they faced, as expressed by students in focus group interviews and by teachers during individual interviews based on interaction with students. This analysis is integral to understanding the mechanisms students adopt to navigate and address the obstacles they encounter in their academic pursuits.
Theme Three: The nature of a good student	This theme explored the perceptions that both students and teachers have about the nature of a good student. It is examined from various perspectives, including personal orientation, exposure to different experiences, traits, upbringing (background), and even the response to the academic environment. It provides valuable insight into student behaviour and academic performance and an understanding of differences in views between students and teachers.
Theme Four: Perception of students' resilience	Under the theme of Perception of Students' Resilience, the focus was on students' ability to persist through challenges, maintain motivation, and effectively adapt to difficult circumstances. This provides a detailed perspective of resilience in terms of factors impacting the academic setting.

6.3.1 Theme One: Challenges and how They Affect Academic Performance

6.3.1.1 Focus Group 1: Less Resilience/High Academic Performance (Resilience < 3, Performance > 60)

The sub-themes of theme one (1) that were extracted under the first focus group, Less Resilience and High Academic (LRHAP) performing students, are presented below.

Sub-Theme 1: Educational Challenges

Students face significant challenges in acquiring the necessary resources and conducive environments for effective learning. The lack of textbooks and gadgets restricts their ability to conduct research and learn independently. Additionally, a noisy classroom environment hampers concentration and overall academic performance. Participants expressed struggling with learning independently, indicating a need for support and guidance beyond classroom instruction. Participant LH3 mentioned, *“Educational problems; How to learn alone.”* The absence of essential textbooks presents a significant barrier to accessing and engaging with course materials effectively, as highlighted by Participant LH1, who noted, *“Not having some of the textbooks.”*

Furthermore, the importance of access to electronic devices for conducting research and furthering understanding of topics outside of school hours was emphasised. Participant LH3 pointed out, *“Not having electrical gadgets such as phones and laptops to do more research after we have been taught at school.”* Lastly, the presence of excessive noise in the classroom was identified as a hindrance to concentration and learning, impacting students’ academic performance. Participant LH4 mentioned, *“Sometimes there’s so much noise in the class.”*

Sub-Theme 2: Socio-Economic Challenges

It was observed that financial constraints pose significant hurdles for students, impacting their ability to meet basic school needs and causing additional stress and distraction from their studies. Many students face the challenge of not receiving enough money to cover essential school expenses, such as textbooks, stationery, and transportation. This financial shortfall impedes their access to educational resources and opportunities, hindering their academic progress. Participant LH7 shared, *“My mother doesn’t give me enough money for school.”*

Notwithstanding social challenges, including peer influence, child abuse, and negative family dynamics, present additional obstacles to students' academic success and well-being. Peer pressure and influence from friends can lead students to engage in unproductive activities or behaviours that detract from their academic focus and goals. Participants LH1 and 2 noted, *"Influence from peers."* Instances of child abuse further exacerbate the social challenges faced by students, impacting their mental and emotional health, as well as their ability to concentrate and thrive in school. Participant LH4 mentioned *"Child abuse."* Negative family dynamics, such as excessive interference or demands from family members, can disrupt students' study routines and impede their academic progress. Participant LH1 shared, *"Family interferences. My grandmother tells me to go on various errands whenever I want to sit down to study."*

Sub-Theme 3: Personal Challenges

Students encounter personal hurdles that significantly impact their academic performance and overall well-being. These challenges include shyness, social anxiety, time management issues, and a lack of emotional support. Students face difficulties in overcoming feelings of shyness and social anxiety, which hinder their active participation in class discussions and their ability to seek help when needed. This reluctance to engage can impede their learning progress and limit their academic success.

Many students struggle with managing their time effectively, resulting in difficulties balancing academic responsibilities with other commitments and activities. Poor time management skills can lead to procrastination and a lack of productivity, impacting students' ability to meet deadlines and achieve academic goals. Participant LH7 noted, *"Time to learn."* Students experience a lack of emotional support, leaving them feeling isolated and without anyone to turn to for guidance or encouragement. This absence of a supportive network can have detrimental effects on students' mental and emotional well-being, further hindering their academic performance. Participant LH3 shared, *"There is no one to talk to when I have a problem because they will use it to tease me later."*

Sickness or ill health is also a student hurdle that significantly disrupts students' academic journey by impeding their ability to access learning materials and maintain focus. Participants highlighted the loss of notes and understanding due to absenteeism, as well

as the mental distraction caused by physical discomfort. Sickness often leads to absenteeism, resulting in students missing out on crucial lessons and learning materials. The inability to obtain notes and understand concepts covered during these absences hampers academic progress. Participant LH5 mentioned, *“I won’t be able to get the notes and the understanding.”* Physical illness not only affects students’ physical well-being but also impairs their mental capacity to concentrate and learn effectively. The discomfort and lack of concentration associated with sickness directly hinder academic performance. Participant LH3 shared, *“When you’re sick, you don’t have a sound mind to learn so sickness will affect my academic performance directly.”*

Sub-Theme 4: Parental, Social and Home Environment Challenges

Challenges within the parental social and home environment significantly impact students’ academic struggles, including a lack of parental care and attention, which leaves students feeling unsupported and vulnerable to negative influences. Insufficient parental care and attention result in feelings of neglect among students, prompting them to seek validation and support from external sources, including peers who may not have their best interests at heart. This lack of parental involvement can lead to behavioural issues and academic underperformance. Participant LH3 shared, *“Lack of parental care. When your parents don’t have much time and attention for you, so you take that advantage to follow bad friends.”*

Furthermore, challenges stemming from broken homes, including time management issues, emotional strain, and potential maltreatment by stepparents, pose significant obstacles to students’ academic success. Children from divorced families often struggle with time management, leading to inefficient use of study time and potential distractions. The lack of supervision and stability can exacerbate this challenge. Participant LH3 noted, *“It will affect her studies since the time she has to learn, she will be with someone else.”* Living in a broken home can have profound emotional and psychological effects on students, impacting their ability to focus on academic tasks. Emotional instability resulting from family strain can disrupt learning. Participant LH7 shared, *“It can affect me emotionally and psychologically.”* The introduction of a stepparent into the family dynamic can sometimes lead to maltreatment, creating a hostile environment for students. This

stress and potential abuse can significantly detract from students' academic focus and performance. Participant LH1 mentioned, *"It will affect my studies when my parent remarries, and my stepparent maltreats me."*

Also, it was obvious to the researcher that social media exerts a significant influence on students, often serving as a distraction and exposing them to negative influences that detract from their academic pursuits. Students cite the negative influence of mass media on their academic focus and behaviour. Exposure to harmful content and distractions from media platforms can divert students' attention away from their studies, leading to decreased academic engagement and performance. Participant LH1 mentioned, *"Influence from mass media."*

Sub-Theme 5: Influence of School Environment

The school environment significantly influences students' academic performance, with factors such as the attitude of teachers, competition amongst students, noise levels, interpersonal conflicts playing pivotal roles and bullying.

The attitude and behaviour of teachers significantly impact students' academic performance, with inadequate attention, negative interactions, and discriminatory behaviour posing challenges. When teachers fail to provide adequate attention to students, feelings of neglect may arise, hindering academic progress. Students may perceive a lack of support and guidance from their teachers. Participant LH3 mentioned, *"They don't have time for us."* Negative interactions with teachers, characterised by insults or unfriendly behaviour, undermine students' self-esteem and confidence. Such interactions create a negative learning atmosphere that impedes academic success. Participant LH5 shared, *"When some of them come to class, they tell you that they don't like you."* Participant LH6 added, *"They like insulting."* Discriminatory behaviour by teachers fosters feelings of exclusion and marginalisation among students, contravening principles of equity and fairness in education. Such behaviour undermines students' sense of belonging and academic engagement. Participant LH4 noted, *"They like discriminating."*

In addition to the influence of teacher attitudes, the physical and social environment within classrooms also plays a crucial role in shaping academic experiences. A crowded student population may diminish the sense of competition among students, affecting their motivation to excel academically. Without a competitive environment, students may lack the drive to strive for academic excellence. Participant LH3 noted, “*There’s no competition due to the large number.*” Additionally, excessive noise and distractions in classrooms disrupt students’ concentration and hinder effective learning. It becomes challenging for students to focus on their studies amidst constant disruptions. Participant LH3 mentioned, “*There’s noise.*” Participant LH6 added, “*There’s a distraction.*”

Furthermore, a high student population can lead to increased instances of conflict and friction among students, creating a disruptive and hostile learning environment. Such conflicts detract from the overall academic atmosphere. Participant LH5 shared, “*There’s fighting; the large number brings a lot of friction and fighting.*”

Additionally, bullying exacerbates the negative school environment by introducing fear and eroding self-confidence, both of which hinder academic engagement and performance. The fear and discomfort caused by bullying disrupt students’ ability to concentrate in class and engage with their studies fully. This distraction can lead to diminished academic performance. Participant LH1 mentioned, “*Because you’re afraid of the person who bullies you, you don’t feel comfortable, and you’re not yourself.*” Bullying also erodes students’ self-confidence, making them less likely to participate in class and interact with learning material. This lack of confidence can hinder academic progress and overall performance. Participant LH3 shared, “*It brings down your self-confidence.*”

6.3.1.2 Focus Group 2: High resilience/high academic performance {resilience > 3.5, performance > 70}

Sub-Theme 6: Peer Pressure and Fear of Judgment

The first themes that emerged were peer pressure and fear of judgment. Peer pressure is a significant factor influencing students’ behaviour and decision-making processes within the school environment. Specifically with adolescents, peer influence can heavily impact various aspects of their academic and social lives, shaping their attitudes toward learning, participation in class activities, and overall academic performance (Kornienko et

al., 2016). Participants noted that how their peers perceive their academic abilities and behaviours significantly affects their self-confidence and willingness to engage in classroom activities. The fear of being judged or ridiculed by peers often leads to self-doubt and reluctance to ask questions or participate in discussions, ultimately hindering students' academic progress.

Participants highlighted that one of the most pressing challenges they face as students was the fear of ridicule. Many expressed concerns about making mistakes in front of their peers, fearing laughter or ridicule, which consequently impedes their willingness to ask questions or participate actively in class discussions. These limitations inadvertently undermine their academic confidence and hinder their ability to fully engage in the learning process, potentially leading to decreased academic performance and a reluctance to seek help when needed. Participant HH9 shared, *"My challenge is that any time I answer questions, and I make a mistake, my friends will be laughing at me so they put fear in me so I cannot ask questions anymore or answer questions."* Participant HH8 added, *"My problem is when I raise my hands, it's like everyone is staring at me and I'm all confused; thinking what if I get it wrong?"*

Participants stressed the significant impact of peer reactions on their academic participation and self-esteem, highlighting how the fear of ridicule can create a cycle of self-doubt and reluctance to engage actively in the learning process. This fear not only inhibits their ability to seek clarification or assistance but also fosters a negative perception of their academic abilities, ultimately undermining their overall confidence and academic performance. Participants expressed apprehension about voicing their thoughts or asking questions in class, fearing judgment or criticism from their peers or teachers. Consequently, students tend to suppress their voices and withhold valuable contributions, leading to a lack of active engagement in classroom discussions and missed opportunities for learning and growth. This fear of speaking up not only inhibits students' academic development but also reinforces feelings of inadequacy and self-doubt, ultimately impacting their overall academic performance and confidence levels. Participant HH5 mentioned, *"When I want to ask a question, I am afraid to speak even though I know the answer."*

Sub-Theme 7: Time Management and Domestic Responsibilities

Effective time management is a critical determinant of academic success and performance. It allows a student to prioritise tasks, allocate sufficient time for studying, and maintain a healthy balance between academic responsibilities and other commitments. With proper time management skills, students can maximise their productivity, reduce stress levels, and achieve better academic outcomes. However, participants indicated that they found difficulty in effectively managing their time due to various domestic responsibilities and other factors.

Several participants averred that they had limited time to study due to various commitments outside of school, such as familial responsibilities and part-time jobs. This lack of dedicated study time prevents them from engaging in consistent and focused learning activities, leading to difficulties in comprehending and retaining academic material. As a result, students may feel overwhelmed and struggle to keep up with coursework, impacting their overall academic performance. Many students also indicated that domestic workloads, coupled with familial responsibilities, further exacerbated their time constraints, leaving them with even less time to dedicate to their studies. This additional burden of household chores and family obligations adds to their stress and limits their ability to focus on academic tasks effectively. As a result, students face heightened challenges in managing their academic workload. Participant HH9 mentioned, *“When I go home, I have lots of work to do so I don’t have time for my studies.”* Participant HH4 added, *“I have many tasks at home, so I don’t have time.”* Participant HH6 shared, *“Anytime I take a book to learn, my mum calls me to go on errands to do this and that, and this bothers me.”*

Some participants also work after school to support their families, which further reduces the time they have available for studying and completing assignments. Balancing work responsibilities with academic commitments adds another layer of complexity to their already busy schedules, making it challenging for them to prioritise their studies effectively. As a result, students may struggle to manage their time efficiently and may experience heightened levels of stress and fatigue, ultimately impacting their academic performance and overall well-being. They noted that they had to routinely work with their

family members and acquaintances to fulfil various obligations, such as running errands, caring for siblings or elderly relatives, and assisting with household chores. These additional responsibilities not only consume their time but also require mental and physical energy, leaving students feeling drained and overwhelmed. Consequently, students may find it difficult to focus on their studies and may experience challenges in meeting academic deadlines or performing to the best of their abilities. Participant HH5 shared, *“After school, I have a lot of work to do, then after, I have to go to my sister’s shop to sell, so I don’t have time to learn.”*

Sub-Theme 8: Enablers and Inhibitors of Self-Esteem

Motivation fuels students’ aspirations and goals, encouraging them to strive for excellence and continuously improve their academic performance. Similarly, self-esteem gives students the confidence to tackle academic challenges and believe in their abilities to succeed. When students have a positive self-image, they are more resilient in the face of setbacks, less likely to be discouraged by failures, and more willing to take on new academic opportunities. However, participants noted that they were lacking in both areas, which limited their ability to excel in their academics.

Participants indicated that they often lack the motivation to learn due to a variety of factors, including feelings of disinterest, apathy, and disillusionment with the educational process. Many students expressed a sense of detachment from their studies, finding it challenging to engage with course material that they perceived as irrelevant or uninteresting. Additionally, the demands of their academic workload and external responsibilities often leave them feeling overwhelmed and demotivated, further contributing to their lack of enthusiasm for learning. As a result, students may struggle to find the intrinsic motivation needed to participate actively in their education and achieve their academic goals. Participants also expressed that they found their learning material quite boring and disconnected from their interests, which dampened their motivation to engage with it. Participant HH4 mentioned, *“Sometimes I don’t feel like learning.”* Participant HH6 added, *“Anytime I take a book to learn, I feel sleepy.”*

Additionally, many participants indicated that they lacked the confidence and self-assurance needed to believe in their abilities and succeed academically. Low self-esteem

was identified as a significant barrier that undermined their confidence in their academic capabilities and their worth as students. Participants described feelings of inadequacy, self-doubt, and a persistent fear of failure, which eroded their self-esteem and made it difficult for them to assert themselves in academic settings. Participant HH10 shared, *"Sometimes I feel shy to talk in class."*

Next, the impact of broken homes on academic performance was explored. A broken home can create a tumultuous and unstable environment for students, leading to emotional distress and distraction. The lack of consistent parental support and the potential for increased responsibilities at home can detract from a student's ability to focus on their studies. Additionally, the stress and anxiety stemming from familial discord can negatively affect concentration, motivation, and overall mental health, further impeding academic performance. However, most participants in this focus group lived with both parents, who prioritise their education and provide them with all the resources they require to thrive academically. Even in the case of single-parent households, participants received strong support and encouragement, which helped mitigate the negative impacts of their home environment on their academic performance. This support network enabled them to remain focused on their studies and maintain a positive outlook, thereby achieving their academic goals despite the challenges. Participant HH2 commented: *"I stay with my mother, and she disciplines me to take my books to learn."* Participant HH9 added: *"I stay with my biological parents. My mother usually tells me to go and learn when I am watching too much TV."*

Building on these findings, this research observed the effect of bullying on academic performance. Bullying tends to create a hostile and unsafe environment for students, leading to increased anxiety, depression, and a sense of isolation (Huang, 2020). Victims of bullying often experience a decline in self-esteem and confidence, which can severely impact their ability to concentrate and perform academically. The constant fear and stress associated with bullying can result in absenteeism, further contributing to academic struggles (Riffle et al., 2021). Additionally, students who are bullied may become disengaged from school activities and lose interest in their studies. Participants recognised the detrimental effects of bullying on academic performance. They stated that

the presence of bullying limits their ability to concentrate on their studies and fully participate in classroom activities. The emotional toll of bullying creates a constant distraction, making it difficult to focus on academic tasks and engage with the material. Participant HH2 added: *"Yes, it won't motivate me to learn"*. Participant HH9 commented: *"Yes, I think yes, because if somebody tries to answer questions and you put fear in the person by bullying him, he may not try to answer questions anymore."* Participant HH7 added: *"When you bully someone and the person gets injured, he might not be able to come to school for some time."*

Lastly, maintaining positive and supportive teacher-student relationships is essential for fostering a conducive learning environment and promoting students' academic success. When teachers cultivate strong connections with their students, characterised by trust, respect, and empathy, students feel valued, supported, and motivated to engage actively in their learning. Teachers who demonstrate a genuine interest in their students' well-being and academic progress create a sense of belonging and psychological safety in the classroom, which encourages students to take risks, ask questions, and participate actively in class discussions. However, participants stated that their teacher-student relationship was anything but positive and supportive. Some described feeling overlooked or ignored by their teachers, while others felt intimidated or discouraged by their educators' demeanour.

The attitude of teachers towards students emerged as a significant concern, particularly regarding harshness and insults in the classroom. Several students expressed dissatisfaction with the behaviour of certain teachers, noting that they were often subjected to harsh treatment and verbal insults, especially when making mistakes or providing incorrect answers. Participant HH2 noted, *"Some of the teachers are harsh, even if you make little mistakes, they talk harshly to you."* Participant HH9 buttressed, *"Some of the teachers insult us when our answers are wrong."* In this theme, students highlight the negative impact of teachers' demeanour on their academic performance and overall well-being. The experience of being criticised or insulted by teachers can lead to feelings of demotivation, lowered self-esteem, and disengagement from learning.

Sub-Theme 9: Impact of Financial Challenges

Finally, financial challenges can significantly affect students' academic performance and overall well-being. When students face financial difficulties, they may struggle to afford essential educational resources such as textbooks, school supplies, or even meals. This lack of access to necessary materials can hinder their ability to engage fully in their studies and succeed academically. However, while students in this focus group acknowledge the potential barrier financial challenges may be present, they perceive them as a motivator more than anything else. Ultimately, financial challenges did not pose a significant enough challenge to derail the students' financial goals.

Participant HH9 said: *"Money will not affect my academics because I am learning my books, not money."* Participant HH4 contributed: *"If I am not given money, it will make me serious to learn and pass my exam, so I excel in the future."* Participant HH2 added: *"It will affect my studies positively because when I am hungry, I need money to buy food."*

Sub-Theme 10: Impact of the School Environment

The school environment plays a crucial role in determining students' academic performance and overall well-being. A positive and supportive environment fosters a sense of belonging, safety, and motivation, which enhances students' engagement and investment in their education. Conversely, a negative or unsupportive environment can lead to feelings of alienation, stress, and disengagement, hindering academic progress and personal development. Participants highlighted environmental distractions and issues with hygiene and comfort as defining characteristics of their school environment.

Participants acknowledged that the school environment significantly impacts their academic performance. They identified factors such as noise, overcrowding, and classroom distractions as barriers to concentration and learning. Noise from outside the classroom, including nearby construction, traffic, or other classrooms, was cited as a major distraction. Many students reported that excessive noise made it difficult to hear the teacher, follow lessons, and concentrate on their work. Overcrowding was another critical issue, with too many students in a single classroom leading to a chaotic and stressful atmosphere. This not only hindered individual attention from teachers but also increased the likelihood of disruptive behaviour among students. Participant HH7 noted,

“There is so much noise in the class, and there is a lack of concentration.” Participant HH6 added, *“We are too many in class. And we get distracted when someone is talking and cracking jokes.”*

Some participants raised concerns about hygiene-related issues, including body odour due to overcrowding in classrooms. They suggested that maintaining a clean and comfortable learning environment could positively influence their motivation and focus on their studies. Participants emphasised the impact of overcrowded classrooms on personal hygiene, noting that inadequate space and ventilation could exacerbate issues such as body odour and discomfort. Participant HH3 stated, *“There is body odour because there are many people in the class.”*

6.3.1.3 Focus Group 3: High resilience/low academic performance (resilience > 3.5, performance < 50)

Sub-Theme 11: Home Responsibilities and its Impact on Academics

Many students face the dual burden of managing home responsibilities alongside their academic commitments. Balancing chores, caregiving duties, and other household tasks can significantly affect their ability to focus on schoolwork and maintain academic performance. Students often find themselves torn between the demands of home and the expectations of school, leading to stress and fatigue. This balancing act can result in reduced study time, missed homework, and decreased participation in school activities.

Many students reported that extensive house chores significantly impacted their ability to study and attend school on time. The needs and expectations of their households often require them to dedicate considerable time and energy to several domestic tasks. This includes cleaning, cooking, and taking care of younger siblings or elderly family members. This heavy load of responsibilities leads to exhaustion, leaving them with little time or energy for academic activities.

Participant HL10 noted:

“The challenge I face at home is work. I have a lot of work to do at home and sometimes I get to school late. I sweep all the compound, and I’ll scrub the porch, and this makes me late to school in the morning. I fetch water into a barrel, and

there can be a lot of work [at] any point in time in my house, even though there are many at home. We sometimes wash the curtains, and there is work, every time."

Participant HL4 noted:

"My challenge is I stay with my brother's wife, and since she has recently given birth, I have to run errands, buy foodstuff and also help her with taking care of the baby. There is so much work that I have to do even before I come to school."

Participant HL5 added, *"I am staying with my auntie, and sometimes we eat late, and during weekends, we eat only once a day, and I also have a lot of work to do in the morning and in the evening."*

Participant HL1 asserted, *"I am the only boy in the house, so I fetch about six buckets of water every day before school ... usually I have to wake up very early, so whenever I come to school, I feel very sleepy."*

Several students assist in family businesses, which consumes a significant portion of their time, affecting their academic performance and study time. The resulting demands often lead to long hours of work before or after school, leaving students with limited time for homework, studying, and rest. This can result in decreased classroom participation, lower grades, and heightened stress levels. Students involved in family businesses face unique challenges as they balance their roles as both students and contributors to their family's livelihood. This dual responsibility can lead to fatigue, decreased motivation, and difficulty keeping up with school assignments and extracurricular activities. The distractions and demands of the family business often encroach on time that could be spent studying or resting, creating a constant struggle to manage both sets of responsibilities. As a result, these students may find it challenging to engage fully in their education, leading to a cycle of stress and academic underperformance that can be difficult to break without adequate support and understanding from both their families and their schools.

Participant HL6 noted:

"My mother has a hairdressing salon and a cold store, so whenever we close from school, I have to go and help her and take care of everything and in the mornings,

I have to cook for my small siblings to take to school ... I stayed with my mother where I had to sell late into the night, which affected my studies but now, I stay with my auntie where I have no challenges except for the noise making and distraction by some fellow students when lessons are going on."

Participant HL2 added:

"I can't study, because I stay with my auntie and assist her in her noodles business after school. My regular routine is to go to the market to buy ingredients for the business. We start selling at 6 pm and sometimes close as late as 2 am."

Sub-Theme 12: Challenges Within the School Environment

The school environment is rife with various challenges that can hinder students' academic performance and overall well-being. These obstacles create a less conducive atmosphere for learning, impacting students' ability to thrive academically and personally.

Students identified noise and distractions from classmates as significant challenges. The constant chatter, movement, and disruptions from peers make it difficult to concentrate on lessons and complete assignments. These distractions interrupt the flow of teaching and create a chaotic atmosphere, impeding students' ability to focus and absorb information effectively. Students expressed that excessive noise and interruptions contribute to increased stress and frustration, making it harder to stay engaged and motivated. Participant HL6 noted:

"I have no challenge except for the noise making and distraction by some fellow students when a lesson is going on." Participant HL3 added, "Sometimes, when you want to study or ask questions, they make noise and tease you, and when you make a mistake, they laugh at you."

Bullying and teasing by peers discourage students from participating in class and affect their self-esteem. The negative impact of these behaviours extends beyond the classroom, causing emotional distress and a sense of isolation among victims. Students who experience bullying and teasing may become reluctant to engage in classroom discussions, collaborate with peers, or seek help from teachers, leading to a decline in their academic performance. Students tend to tease and bully others over differences in

appearance, behaviour, academic performance, or social status, exacerbating feelings of inadequacy and alienation among the targeted individuals. Participant HL8 noted, *"Sometimes, if you know the answer and you want to say it, they tend to laugh at you, so I don't answer questions in class."* Participant HL10 added, *"In my former school, we were not speaking English. Here, when a question is asked, I struggle to answer the question in English to prevent being laughed at. This makes me uncomfortable."* Participant HL1 buttressed, *"There are also bad friends in class who, when they do something bad, they threaten to hurt you when you expose them. (bullying from bigger and older classmates)."*

Students report specific incidents of bullying, such as physical aggression and threats, which create a hostile learning environment. This negative atmosphere significantly impacts their emotional well-being and academic performance. The fear and anxiety stemming from bullying incidents can lead to decreased concentration, absenteeism, and a reluctance to participate in class activities. Furthermore, the constant stress and insecurity can undermine students' self-esteem and motivation, causing a decline in their academic engagement and achievement. Participant HL4 noted, *"Yes, there is a specific boy in my class who snatches items from my hand and tries to pick a fight with me when I want it back."* Participant HL3 added, *"When some of them are smoking in class, and you complain, they also threaten to pick up a fight with you."*

Despite these bullying incidents, some students do not let it affect their academic performance and prefer to report such cases to the authorities. Some students stated that while there are bullies in their class, they are not intimidated by them. As a result, they maintain their focus on their studies and continue to participate actively in classroom activities. This resilience allows them to thrive academically despite the negative behaviour of their peers. By refusing to be cowed by bullies, these students set an example for others and contribute to a culture of resistance against bullying. Participant HL3 noted, *"No, it does not affect my academics because I am not intimidated by them. I like to report them to my teachers."*

Another challenge is that the number of students in each class has a profound impact on their academic performance and overall learning experience. A smaller class size allows for more individualised attention from the teacher, facilitating a better understanding of

the material and increased engagement in classroom activities. However, participants stated that this was not the case in the school. Large class sizes are the norm, making it difficult for students to gain the attention they need to actively participate in class and fully engage with the material being taught.

Students indicate that the large number of students in their class creates a noisy and distracting environment, which negatively impacts their ability to focus and learn. This constant noise and distraction make it challenging for students to concentrate on lessons and absorb information effectively. Participants reported that the crowded classrooms often lead to frequent disruptions, making it difficult for teachers to maintain order and for students to stay engaged. As a result, the overall learning experience is diminished, with students finding it hard to follow along with the curriculum and retain key concepts. All participants observed that the number of students was excessive and unhelpful. The class consisted of 62 students, some of whom were disruptive, so distracting those who were eager to learn. The sheer number of students makes it challenging for those who are motivated to learn to achieve their academic goals, as the distractions prevent a conducive learning environment. Participants claimed that the overcrowded conditions significantly hindered their academic progress and personal development. They emphasised the need for smaller class sizes to foster a more focused and supportive learning atmosphere.

Lastly, teachers play a critical role in shaping students' academic experiences and outcomes. Their attitudes, teaching methods, and level of engagement can significantly influence students' motivation and ability to learn. However, participants stated that the attitudes and behaviours of their teachers left something to be desired, which limits their abilities to engage fully with the material and reach their academic potential.

Some students struggle to understand the material due to the teaching methods of certain teachers, which can hinder their academic performance. According to participants, some of their teachers rely heavily on lectures and rote memorisation rather than incorporating diverse teaching strategies that address different learning styles. This approach often leaves students feeling confused and disengaged, as they are unable to grasp complex concepts. Participant HL5 noted, *"I find it difficult to understand the things taught by some*

teachers.” The use of verbal abuse by some teachers creates a hostile learning environment, which can demotivate students and affect their academic confidence and performance. The participants shared instances where teachers resorted to yelling, harsh criticism, or humiliating remarks, which left them feeling disrespected and discouraged. Such negative interactions not only undermine students’ self-esteem but also create an atmosphere of fear and anxiety that hinders effective learning. Participant HL7 noted, *“Some of the teachers verbally abuse us, especially using insults.”*

Sub-Theme 13: Effect of Broken Homes on Academic Performance

Students from single-parent or divorced families often face additional challenges, such as a lack of attention to their academic needs and disturbances in their study environment. The absence of one parent or ongoing family conflicts can lead to emotional distress and instability, affecting students’ concentration, motivation, and overall academic performance. Negligence also plays a significant role, as students may not receive the necessary guidance and support with their homework, school projects, or examination preparation. This lack of academic support at home can lead to a decline in academic achievement and a sense of isolation. Participant HL6 noted, *“Yes, I am staying with my mum, who enjoyed watching television with high volume [which] disturbs my studies.”* Participant HL3 added, *“Yes, there is a lot of misunderstanding between my divorced parents; thus, things concerning my welfare are not discussed and attended to.”* Participant HL10 buttressed, *“Yes. Only my mother takes full care of me.”*

Despite these challenges, some students receive adequate support and care, which helps them maintain their academic performance. The role of extended family members, such as grandparents, aunts, uncles, and siblings, can be crucial in providing stability and support. This support insulates students from the potential negative impacts of family disruption, ensuring their emotional and academic needs are met. Participant HL7 noted, *“No, even though my parents are divorced, the welfare of my siblings and I are well catered for.”* Participant HL4 added, *“No, I stay with my brother and his wife, and they cater for my academic needs.”*

Sub-Theme 14: Financial Challenges and Academic Performance

Financial difficulties are a significant barrier to academic performance for many students. Insufficient funds for basic school needs can hinder their ability to study effectively. The lack of essential supplies, such as textbooks, notebooks, and other learning materials, can prevent students from fully engaging with the curriculum. These challenges can lead to increased stress and anxiety, further detracting from students' ability to concentrate and perform well in their studies. Participant HL5 noted, *"Yes, my school feeding fee is small, so it affects my studies."* Participant HL1 added, *"Yes, the money given to me for school is not enough, especially if I want to buy exercise books and other things for schoolwork."* Participant HL9 buttressed, *"Yes, the relatives I am staying with do not provide enough money for me, so it affects my academics, so sometimes I have to call my mother for money."*

6.3.1.4 Comparative Analysis of Sub-Themes Under Theme One (1) Across Focus Groups

1. Finances

The analysis of the three focus groups (FG1, FG2, and FG3) reveals common sub-themes and notable contrasts regarding the impact of financial constraints on students. Both FG1 and FG3 highlight those financial difficulties significantly that hinder students' ability to afford essential school needs, such as textbooks, stationery, and transportation. This shortage not only leads to stress and anxiety but also impedes their academic progress by limiting access to educational resources and opportunities, ultimately affecting their concentration and overall academic performance. On the other hand, FG2 acknowledges the challenges posed by financial difficulties but perceives them differently; students in this group view these challenges as motivators rather than barriers. They believe that the struggle with financial constraints pushes them to work harder, focus on their studies, and achieve their academic goals. Unlike FG1 and FG3, where financial challenges are seen primarily as obstacles, FG2 participants frame them as a driving force for their success. Despite the shared recognition of financial difficulties affecting students' educational experiences across all three groups, FG2's perception stands out

as more positive, emphasising the motivational aspect, whereas FG1 and FG3 focus more on the negative impacts and barriers created by these challenges.

2. Bullying

The impact of bullying on students is a significant concern across all three focus groups. In FG1, bullying creates a toxic environment marked by fear and diminished self-confidence, which disrupts students' ability to concentrate and engage fully in their studies, leading to reduced academic performance. Participants in FG1 describe how the emotional toll of bullying undermines their confidence and academic involvement. Similarly, FG2 highlights that bullying fosters a hostile and unsafe environment, leading to increased anxiety, depression, and decreased self-esteem. This emotional distress results in poor concentration, absenteeism, and disengagement from school activities. FG2 participants recognise the detrimental effects of bullying on academic performance and classroom participation. In contrast, FG3 provides detailed accounts of specific bullying incidents, such as physical aggression and threats, which contribute to a hostile learning environment. While these incidents lead to decreased concentration and absenteeism, FG3 also notes that some students exhibit resilience by actively reporting bullying to authorities and maintaining their academic focus despite the negative behaviour. This resilience contrasts with FG1 and FG2, where the focus is primarily on the negative impacts of bullying, highlighting how FG3's approach demonstrates a proactive stance against bullying while still facing its challenges.

3. Teachers' Attitudes and Behaviours

The focus groups recognise that the attitudes and behaviours of teachers significantly impact students' academic experiences. FG1 and FG2 both highlight issues related to neglect, negative interactions, and verbal abuse from teachers, which undermine students' self-esteem and academic performance. FG3 also addresses these concerns, noting ineffective teaching methods and verbal abuse and how these factors contribute to a hostile learning environment. Across all groups, negative teacher behaviours are linked to decreased student motivation and engagement, with FG2 and FG3 providing detailed accounts of harsh treatment and its effects on academic confidence.

4. Broken Homes

FG1 provides detailed insights into how broken homes affect students' academic performance through challenges with time management, emotional strain, and potential maltreatment by stepparents. FG2 and FG3, while not directly discussing family dynamics in detail, highlight the broader impact of negative environmental factors on academic performance. FG2 focuses on teacher attitudes and bullying, whereas FG3 touches on bullying and teaching methods. The direct impact of family dynamics is most clearly articulated in FG1, while FG2 and FG3 explore other aspects of the student's educational environment.

Table 6.3 below provides a simplified summary of common sub-themes across the focus groups:

Table 6.3: Common Sub-Theme Across the Focus Groups Under Theme One (1)

Aspect	FG1 (LRHAP)	FG2 (HRHAP)	FG3 (HRLAP)
Finances	Financial difficulties significantly hinder access to essential school needs, causing stress, anxiety, and academic barriers.	Financial challenges are seen as a motivator that drives students to work harder and focus on their studies.	Financial constraints impede access to educational resources, leading to stress and barriers, similar to FG1.
Bullying	Bullying creates a toxic environment with fear and diminished self-confidence, disrupting concentration and performance.	Bullying leads to anxiety, depression, and decreased self-esteem, resulting in poor concentration and disengagement.	Specific incidents of bullying, such as physical aggression and threats, contribute to a hostile environment, but some students report bullying to authorities and maintain academic focus.
Teachers' Attitudes and Behaviours	Issues with neglect, negative interactions, and discriminatory behaviour undermine students' self-esteem and academic performance.	Negative teacher attitudes, including harshness and insults, lead to demotivation and disengagement.	Ineffective teaching methods and verbal abuse create a hostile learning environment, affecting motivation and academic confidence.
Broken Homes	Challenges include time management issues, emotional strain, and potential maltreatment by stepparents, affecting academic performance.	It is not directly discussed; the focus is more on teacher attitudes and bullying.	The impact of broken homes is not explicitly discussed; however, students identified the negative effects of such challenges. The focus is on bullying and teaching methods.

6.3.2 Theme Two: Strategies Used to Overcome Challenges

6.3.2.1 Focus Group 1: Less Resilience/High Academic Performance (Resilience < 3, Performance > 60)

Sub-Theme 1: Building Personal Qualities

Students recognise the importance of cultivating self-confidence, self-identification, and proactive behaviour to confront obstacles effectively. This theme highlights the significance of personal development and resilience in overcoming challenges. Cultivating self-confidence equips students with the resilience to confront challenges directly. Assertiveness enables them to actively participate in classroom discussions and seek assistance when needed, thereby enriching their learning experiences. Acknowledging personal strengths and weaknesses empowers students to focus on self-improvement and growth. Participant LH2 emphasised “*Self-confidence.*” Participant LH1 added, “*You have to be confident and ask questions for an explanation when you don’t understand something in class.*”

Self-awareness and recognition of one’s abilities and limitations allow students to navigate challenges effectively. By identifying areas for development, students can tailor their learning approaches to address specific hurdles, fostering personal and academic growth.

Active listening and proactive engagement in classroom activities enhance students’ understanding and retention of course materials. Overcoming shyness and fear of public speaking cultivates essential communication skills vital for both academic success and personal development. Participant LH2 highlighted “*being a good listener.*” Participant LH3 added, “*Being attentive in class and speaking in public without shyness.*”

Sub-Theme 2: Goal Setting and Planning

Effective time management emerges as a crucial factor in students’ ability to balance academic responsibilities with other obligations. By implementing efficient task management techniques and prioritising their schedules, students optimise their time for academic pursuits. Effective time management practices, such as completing tasks promptly and creating structured schedules, enable students to balance academic

demands with other responsibilities. By optimising their time, students minimise stress and maximise productivity, leading to enhanced academic performance. Participant LH4 emphasised, *"You must learn to do your chores fast."* Participant LH1 added, *"Creating schedules and a list of things that you have to do."* When focusing on efficient task management, students can better navigate their various responsibilities, ensuring they have ample time for both academic and personal activities. Prioritising study time and ensuring adequate time for learning activities contribute to academic success. Participant LH8 emphasised, *"You must have enough time to read and learn."*

Furthermore, effective planning and goal setting are foundational to academic success. Students emphasise the importance of setting clear goals and developing structured plans to achieve them. Maintaining a clear vision of academic goals serves as a guiding force in daily activities, motivating students to stay focused and determined in their pursuits. Participant LH3 noted, *"Keep a goal in mind and work towards it."* Organising tasks through to-do lists facilitates prioritisation and ensures efficient allocation of time and resources to various academic responsibilities. Participant LH1 emphasised, *"Making a to-do list is important."*

In alignment with time management and planning, discipline emerges as a cornerstone of academic success, regardless of the presence of challenges. Students acknowledge the necessity of maintaining discipline in behaviour and studies to achieve their academic goals. This theme underscores the significance of self-regulation and focus in navigating the academic landscape effectively. Discipline emerges as a fundamental factor for achieving academic success, irrespective of the presence of challenges. Maintaining discipline in behaviour and studies underscores a student's commitment to their goals and responsibilities. Participant LH3 commented:

"There is a term saying, 'Disciplined people go high,' let's say if there are no challenges, then I'm not disciplined to go high because let's say I want to work at your place and I talk to you harshly; will you give me the work? I have to be disciplined."

Sub-Theme 3: Parental Communication and Understanding

Effective communication with parents plays a vital role in creating a supportive home environment conducive to academic success. Students emphasise the importance of articulating their needs and maintaining respectful communication with their parents. Clear and respectful communication with parents about educational needs fosters a supportive home environment. Articulating requirements enables students to gain parental support, contributing to their academic success. Participant LH1 noted, *“We should make our parents understand the reason why we need textbooks and also learn to save money to buy things for ourselves.”* The participant also added, *“How do we approach our parents and let them know that education comes with expenses, unlike back then when everything was free?”*

Maintaining a positive attitude towards parental guidance and responsibilities enhances familial support and access to resources. Demonstrating respectful behaviour and gratitude fosters a conducive environment for academic achievement. Participant LH4 emphasised, *“Sometimes our parents do not do certain things for us because of some attitude that we exhibit.”* By focusing on effective communication and a positive attitude, students can create a more supportive home environment that contributes to their academic success.

Sub-Theme 4: Active Participation in Class

Engagement during instructional sessions contributes to deeper understanding and mastery of academic content. Actively seeking clarification and posing questions fosters critical thinking and enhances comprehension of complex topics. Participant LH2 noted, *“You ask questions.”* Attentiveness and adherence to the teacher’s instructions promote a focused learning environment conducive to academic success. Participant LH7 emphasised, *“Follow the teacher (while he/she is teaching).”* Respecting classroom etiquette by refraining from unnecessary disruptions allows for uninterrupted learning and maximises instructional time. Participant LH5 advised, *“Do not talk when the teacher is teaching.”* Demonstrating genuine interest in the subject matter cultivates a positive learning experience and encourages active participation in class discussions. Participant LH4 highlighted, *“You should have an interest in the topic.”* By focusing on these

engagement strategies, students can enhance their understanding and mastery of academic content, leading to greater academic success.

Sub-Theme 5: Independent Learning

Taking initiative in self-directed learning enhances academic autonomy and promotes continuous intellectual growth. Engaging in research activities fosters critical thinking skills and expands students' knowledge beyond the classroom curriculum. Participant LH3 emphasised, "*Be a researcher (do research).*" Developing independent reading habits enables students to deepen their understanding of subjects and supplement classroom learning. Participant LH3 added, "*Learning to read on your own when the teacher is not in the classroom.*" Regular review and revision of course materials reinforce learning and improve retention of key concepts. Participant LH2 noted, "*Doing revisions for yourself.*"

Proactively seeking additional knowledge and exploring advanced topics demonstrate a commitment to academic excellence. Participant LH1 highlighted, "*Learning ahead.*" Seeking opportunities to expand one's understanding through active engagement with teachers and peers facilitates continuous learning and intellectual growth. Participant LH1 also mentioned, "*Asking to get more knowledge.*" By emphasising these self-directed learning strategies, students can enhance their academic autonomy and promote continuous intellectual growth.

Sub-Theme 6: Developing Mental Stamina for Academic and Personal Balance

Prioritising mental well-being promotes resilience and enhances overall academic performance. Cultivating a positive mindset and managing stress levels contribute to a healthy academic lifestyle conducive to learning. Participant LH7 noted the importance of "*having a sound mind.*" Also, juggling academic commitments with personal obligations requires effective time management and prioritisation strategies. Addressing familial responsibilities alongside academic pursuits requires resilience and adaptability in managing competing demands. The participant noted, "*I do, I sell after school.*"

Also, navigating peer influence poses a significant challenge for students. Learning to say no assertively to negative influences empowers students to stay focused on their goals

and maintain academic integrity. Empowering students to resist negative peer influences fosters decision-making skills and promotes academic integrity. Learning to decline detrimental influences assertively enables students to maintain focus on their educational goals and personal values. Participant LH1 added: *"Learn to say 'No' when bad friends are putting pressure on you to do what is wrong."*

Sub-Theme 7: Personal Responsibility and Decision-Making

Students emphasise the critical role of personal decisions in determining academic success, irrespective of the presence of challenges. They stress the importance of making wise choices regarding friendships, career paths, personal habits and academic pursuits. This theme underscores the proactive role students play in shaping their academic trajectory through mindful decision-making. In the absence of challenges, students emphasise the pivotal role of personal decisions in shaping their academic outcomes. The ability to make informed choices regarding friendships, career paths, and lifestyle habits significantly influences academic performance. Participant LH3 noted, *"It depends on the kind of person you are."* In addition, *"It's your decision; in this world, it is only made up of decisions. You have to decide; no one is going to decide for you"* (LH3). Elaborating further, LH3 emphasised, *"I can decide to choose good friends; I can be the same person to also decide to choose bad friends. I can decide whether to choose a good career or follow bad friends."*

Prioritising academic pursuits over distractions is essential for student success. Students acknowledge the importance of dedicating time and effort to their studies, prioritising educational goals over non-essential activities. Encouraging students to prioritise academic pursuits over distractions like electronic gadgets reinforces commitment to learning. By minimising distractions and dedicating time to studying, students deepen their understanding and achieve academic excellence. Participant LH3 C commented: *"Electrical gadgets are some things we can do away with, so we should not focus on electrical gadgets when our books are there and we have not been reading"*.

Sub-Theme 8: Embracing Challenges

Participants recognise the potential of challenges to enhance determination and resilience. Overcoming obstacles is viewed as an opportunity for personal growth and

development. While challenges may present hurdles, they also serve as catalysts for building character and fortitude, ultimately contributing to academic success. Challenges, even in their absence, are viewed as opportunities to cultivate determination and resilience. Overcoming obstacles strengthens character and fosters persistence, qualities that are essential for academic success and personal growth. One participant noted, *“No, sometimes some of the challenges make you tough- it helps you to be more determined.”*

Conversely, the absence of challenges can provide students with a conducive environment to focus solely on their academic pursuits. Without the distraction or burden of personal and external issues, students may find it easier to concentrate on their studies, potentially leading to improved academic performance. As another participant mentioned, *“Yes, when there are no challenges, you have all the time to learn and do well in your studies.”*

6.3.2.2 Focus Group 2: High resilience/high academic performance {resilience > 3.5, performance > 70}

Sub-Theme 9: Self-Motivation, Positive Mindset and Fearlessness

Ensuring that students maintain a self-motivated attitude, cultivate a positive mindset, and develop fearlessness emerged as the primary theme. Self-motivation refers to the internal drive and determination that students harness to overcome challenges and pursue their academic goals (Wu et al., 2020). It entails believing in one's ability to succeed and staying focused on achieving desired outcomes despite obstacles or setbacks. Cultivating a positive mindset involves adopting an optimistic outlook and reframing challenges as opportunities for growth and learning. Fearlessness, on the other hand, entails facing challenges with courage and resilience without succumbing to the pressures of fear or self-doubt (Parker et al., 2018). Together, these attributes empower students to navigate the academic journey with confidence and resilience, ultimately enhancing their chances of success. Participants stated that by adopting a positive mindset, self-motivation, and fearlessness, they are better equipped to overcome the challenges they encounter in their academic journey. They emphasised the importance of believing in themselves, staying focused on their goals, and approaching obstacles with courage and resilience. Additionally, cultivating a positive outlook allows them to reframe challenges as

opportunities for growth and learning, enabling them to navigate the academic landscape with confidence and determination.

Participants highlighted that cultivating a can-do spirit enables them to tackle challenges with resilience and determination. By adopting a mindset focused on possibilities rather than limitations, they are better able to confront obstacles and find innovative solutions. This attitude empowers them to maintain a proactive approach to problem-solving and navigate through difficulties with confidence and optimism, ultimately contributing to their academic success and personal growth. Participant HH3 averred, *"I think we should have the can-do spirit. Let's say we have a challenge; you have to tell yourself that you can do it and you will be able to do it."*

Promoting resilience and persistence is yet another crucial theme that emerged from the participants' responses. They highlighted the need to maintain a positive attitude, remain determined, and keep striving towards their goals even when faced with obstacles. Employing these traits allows students to develop a resilient mindset, enabling them to view challenges as opportunities for growth and learning rather than insurmountable barriers. By maintaining a positive attitude and persevering in the face of adversity, students can build their resilience muscle, equipping them with the tools needed to overcome future challenges and setbacks. Shyness and the fear of judgment are some of the prevalent barriers that students encounter in their academic journey. Participants discussed strategies for overcoming these obstacles, emphasising the importance of building confidence and resilience. By challenging themselves to speak up in class, ask questions, and actively participate in discussions, students can gradually overcome their shyness and fear of judgment. Participant HH4 noted, *"You have to make up your mind that when people laugh at you when you ask a question, do not mind them (see it as normal) and just brace yourself."*

Sub-Theme 10: Academic Engagement and Focus

Consistently engaging with coursework and maintaining focus are essential components of academic success. This level of engagement helps students grasp complex concepts more thoroughly and retain information more effectively. Embracing a proactive approach to learning by seeking out additional resources can further enhance understanding and

deepen knowledge. Participants stated that active participation in learning and personal motivation/external influence are key components of the strategies they employ in managing their academics on a day-to-day basis.

Participants asserted that active participation in learning is a strategy they employ to manage their academics daily. This involves regularly attending classes, actively engaging in classroom discussions, and reviewing teaching and learning materials. By asking questions and seeking clarification on complex topics, students can deepen their understanding and retain information more effectively. Additionally, taking detailed notes during lectures and reviewing them regularly helps reinforce key concepts and ensures continuous engagement with the material. Active participation also includes collaborating with peers in study groups, which not only enhances learning through diverse perspectives but also fosters a supportive academic community. Students also review their coursework and assignments promptly, allowing them to identify any areas of difficulty early on and seek help if needed. This proactive approach ensures that they stay on top of their studies, avoid falling behind, and maintain a consistent academic performance. Participant HH9 affirmed, *"Anytime we learn a new subject topic, immediately I get home, I take it seriously and read over again."*

Participants also stated that it is crucial to maintain focus and limit distractions for effective studying and academic success. Some noted that when they find a subject interesting and engaging, it is easier for them to maintain focus, which enhances their overall learning experience. When in class, participants stated that they limit distractions by maintaining full concentration on their teachers and actively listening to the lectures. They minimise side conversations to ensure they do not miss important information. This helps them to stay engaged with the material, better understand complex concepts, and retain information more effectively, ultimately leading to improved academic performance and a deeper comprehension of the subject matter. Participant HH9 commented: *"I try to forget about bad friends and stop(block) any person distracting me."* Participant HH2 added: *"I don't communicate with my friends when the teacher is teaching (maximum concentration) and forget whatever is going on at home that may disrupt my studies in school."* Participant HH5 said: *"I put away anything that will distract me during lessons."*

Time management and task prioritisation were also found to be critical components in overcoming challenges. Participants emphasised the importance of effectively managing their time and prioritising tasks to ensure they allocate sufficient effort to their academic pursuits. By organising their schedules and allocating dedicated time slots for studying, completing assignments, and engaging in other activities, students can optimise their productivity and minimise procrastination. Additionally, establishing clear priorities allows them to focus on high-value tasks that contribute most to their academic goals, enabling them to make efficient use of their time and achieve better outcomes.

Participants noted that effectively utilising the limited time they have at their disposal is crucial in overcoming challenges. They emphasised the need to maximise productivity during available study periods by minimising distractions and staying focused on their academic tasks. This approach not only allows them to make the most of their study sessions but also helps them stay organised and on track with their academic goals. Effectively separating domestic chores and study time was highlighted as essential by participants. They suggested allocating specific time slots for completing household tasks and dedicating uninterrupted periods solely for studying. By setting boundaries and adhering to a structured schedule, participants believed they could optimise their time usage and maintain a healthy balance between academic responsibilities and other commitments. Participant HH8 commented, "*We need to be fast in doing our chores, so we make more time to study.*"

Sub-Theme 11: Internal and External Motivation

Motivation is another important driver of academic success. Participants highlighted that both internal and external factors play a significant role in sustaining their drive to excel in their studies. By staying motivated, students can maintain a high level of engagement with their coursework, overcome obstacles more effectively, and persist in their efforts even when faced with challenges. This sustained motivation helps them to complete assignments consistently on time, prepare thoroughly for examinations, and actively participate in class activities. Moreover, a motivated mindset enables students to set and achieve academic goals, leading to a sense of accomplishment and a positive attitude towards learning.

The participants noted that external influences play a significant role in driving their academic efforts. They mentioned external factors, such as parental encouragement and the desire to make their families proud, as sources of motivation for maintaining focus and dedication to their studies. This approach promotes a sense of responsibility and accountability as students strive to meet the expectations and fulfil the aspirations of their loved ones. Participant HH2 commented: *"I pay attention in class because I want my mother to be proud of me."*

Additionally, participants demonstrated intrinsic motivation by actively participating in lessons and engaging with topics that interest them. This innate drive fuels their curiosity and passion for learning, leading to deeper understanding and retention of the material. When students are intrinsically motivated, they exhibit a genuine desire to explore and master concepts rather than solely focusing on external rewards or pressures. This self-driven approach not only fosters a lifelong love of learning but also empowers students to take ownership of their academic journey, leading to greater satisfaction and fulfilment in their educational pursuits. Participant HH6 explained: *"I contribute to the lesson when the topic is interesting."* Participant HH8 added: *"I get excited when the subject I'm interested in is being taught; I can concentrate."*

Sub-Theme 12: Uninterrupted Learning versus Embracing Challenges for Growth

The participants noted that in the absence of challenges, their academic performance is likely to improve since they would be able to focus more readily on mastering the material and honing their skills without the distractions or setbacks posed by obstacles. Without the need to navigate challenges, students can dedicate their energy and attention solely to academic pursuits, leading to increased productivity and efficiency in their studies. Additionally, the removal of barriers allows students to approach learning with a greater sense of ease and confidence, leading to higher levels of engagement and motivation. Ultimately, the absence of challenges creates an optimal learning environment where students can fully realise their potential and achieve higher levels of academic success. Participant HH9 contributed: *"I will perform at my best because I have no challenges."* Participant HH7 added: *"I will do well in my performance if there is no challenge."*

Participant HH10 confirmed: *"If there is no challenge, I will be the best amongst my peers."*

On the other hand, some participants highlighted the importance of challenges in fostering growth and improvement in academic performance. Challenges provide avenues for learning valuable lessons and developing essential skills such as problem-solving, resilience, and adaptability. By facing and overcoming obstacles, students gain confidence in their abilities and become better equipped to tackle future academic and professional challenges. Moreover, embracing challenges encourages a growth mindset, where setbacks are viewed as opportunities for learning and development rather than insurmountable barriers. This mindset shift not only enhances academic performance but also fosters a lifelong love of learning and a resilient approach to navigating the complexities of the academic journey.

Participant HH4 commented: *"Without challenges, when I am free, I will not learn. I want the challenges to be there to guide me to stay focused."*

Participant HH3 concurred: *"If there is no challenge, my academics would come down because I feel if there is no challenge, I won't learn from my mistakes."*

6.3.3 Focus Group 3: High resilience/low academic performance (resilience > 3.5, performance < 50)

6.3.3.1 Sub-Theme 13: Time Management and Scheduling

Using effective time management and scheduling strategies is crucial for overcoming challenges. Students highlighted the importance of prioritising tasks, setting realistic goals, and creating structured schedules to maximise productivity and minimise stress. By adopting proactive time management techniques, students can navigate through challenges more efficiently and achieve a better balance between their academic, personal, and social responsibilities.

Students often try to manage their time by dividing tasks between morning and evening to make room for academic activities. The strategic allocation of time allows students to balance their academic commitments with other responsibilities, such as household chores, part-time work, and extracurricular activities. By dedicating specific blocks of time

to different tasks throughout the day, students can optimise their productivity and ensure that they accomplish essential tasks without feeling overwhelmed.

Participant HL7 noted,

"I have scheduled my chores such that in the evening, I water plants, and then in the morning I just sweep and prepare for school... The strategy I have taken is to learn at midnight... I sleep at 8 pm... I get time to sleep and wake up early at 3 am to do the rest of my chores before coming to school but nowadays, they have reduced the workload so that I can get time to study and pass my examination."

Participant HL 3 added, *"With mine, I can't change how the week goes, but what I can do is that after serving my father; I will try as much as possible to study some topics before I sleep but with the Sunday work; I may not be able to do anything about it because that is how my mum gets money to cater for my school expenses."* Participant HL1 buttressed, *"Now, what I will do is that I will try harder to finish fetching my 6 buckets of water early so I get some time to learn at home... or maybe when I get home, then I study a bit before going to fetch the water."* Participant HL9 added, *"I will prepare a timetable to help me learn before my evening chores."* Participant HL2 buttressed, *"In between people buying at my mother's shop where I manage after school, I will take a book and read."*

Some students experienced a reduction in their workload, which allowed them more time to focus on their studies. By streamlining their commitments and responsibilities, students can allocate more time and energy to academic pursuits, enhancing their ability to engage with course materials, complete assignments, and prepare for exams. By reducing unnecessary stress and distractions, students can cultivate a more conducive learning environment and achieve greater academic success. Participant HL6 noted, *"My workload has been reduced, so now I can study without any distractions."*

Making the necessary adjustments to manage time effectively is paramount for students in their day-to-day academic life. This includes setting priorities, creating schedules, and adhering to deadlines. By allocating specific time slots for requisite academic and personal responsibilities, students can optimise their productivity and ensure that they stay on track with their academic goals.

Students often have limited time for studying due to various responsibilities, so they make the most of the available time. This approach shows the student's proactive strategy to utilise school hours efficiently, compensating for the lack of study time at home. Even though 15 minutes is brief, it reflects the student's effort to reinforce their learning before the school day starts. Participant HL4 noted, *"I jot whatever the teacher is saying down and then go through it during break time because I might be busy at home, and I won't get enough time to study"*. Participant HL3 added, *"So, when I get to school early, after cleaning the head teacher's office, I take 15 minutes to go through the previous days' notes before classes begin."*

Using breaks at school or quieter periods at home for studying helps students manage their workload more effectively. This method ensures that the student reviews and consolidates learning during school hours, minimising the pressure to study at home. Moreover, finding a quiet place, even if unconventional, like a shop, demonstrates the student's dedication to minimising distractions and optimising study time. Participant HL8 added, *"I have decided to stay at the shop where I work after school because there is little distraction, and I'm able to learn there from 10:30 pm to 12:00 am before I sleep."*

Furthermore, allocating specific times for study, despite other commitments, is crucial for effective learning. This structured schedule allows the student to dedicate focused study time, ensuring academic tasks are managed alongside household responsibilities. The disciplined approach to study time allocation enables students to prioritise their academic endeavours and maintain consistency in their learning routine. By setting aside dedicated periods for studying each day, students can effectively manage their workload, retain information more effectively, and prepare thoroughly for exams. Participant HL3 noted, *"I get home around 5 pm, and I am able to do my chores early, after which I am able to get 2 hours (5 pm to 7 pm) to read before I sleep."*

Expanding on classroom learning through additional research reinforces understanding and retention. This practice of conducting further research at home helps deepen the student's grasp of the subject matter, going beyond what is taught in class. The integration of research into study sessions allows students to explore topics in greater depth, gain insights from different perspectives, and develop critical thinking skills. Moreover,

conducting independent research fosters self-directed learning and cultivates a curiosity-driven approach to education. Participant HL7 noted, "*When I get home, I make some time to do research into what I learnt in school.*"

6.3.3.2 Sub-Theme 14: Motivation and Encouragement

The role of motivation and encouragement is paramount in overcoming challenges. Students highlighted the importance of positive reinforcement, particularly from themselves, and intrinsic motivation in maintaining resilience and perseverance during difficult times.

Students find motivation in thinking about their future goals and aspirations. Intrinsic to their drive is the desire to achieve success in their chosen paths, whether it be pursuing higher education, landing a dream job, or making a positive impact in their communities. This internal drive propels students to overcome obstacles, stay focused on their studies, and persist in the face of challenges. By harnessing their intrinsic motivation, students cultivate a sense of purpose and resilience that enables them to navigate through difficulties and achieve their long-term goals. Participant HL8 noted, "*When I think about my future goals, it motivates me.*" Participant HL7 added, "*My future aspirations motivate me to go through the challenges.*"

Engaging in activities such as music, dancing, and sports helps students stay motivated. Having an outlet for creativity, self-expression, and physical activity allows students to recharge their energy, alleviate stress, and maintain a healthy balance between their academic and personal lives. These extracurricular pursuits provide opportunities for students to pursue their passions, develop new skills, and form meaningful connections with peers who share similar interests. They were asked what motivates them to overcome the challenges they are going through. Participant HL5 noted, "*When I listen to music.*" Participant HL3 added, "*When I dance.*" Participant HL10 buttressed, "*When I sing encouraging songs.*" Participant HL6 averred, "*When I sing.*" Participant HL4 and Participant HL9 noted, "*When I play and watch football.*"

6.3.4 Comparative Analysis of Sub-Themes Under Theme Two (2) Across Focus Groups

Effective time management is universally recognised as a critical factor in balancing academic responsibilities with other obligations across the focus groups. While FG1 and FG2 highlight the importance of structured scheduling and task prioritisation to manage stress and enhance productivity, FG3 demonstrates a more proactive approach by integrating additional research and utilising quieter study environments. The comparative analysis underscores the shared understanding of time management's role in academic success and the diverse strategies students employ to optimise their study time and achieve their educational goals. Table 6.4 below reflects a simplified summary of the time management strategy across the focus groups.

Table 6.4: Common Sub-Theme across the focus groups under Theme Two (2)

Aspect	FG1	FG2	FG3
Focus on Time Management	Emphasises structured schedules and efficient time use.	Highlights the setting of realistic goals and creating schedules.	Stresses prioritising tasks and specific study times.

6.3.5 THEME THREE: THE NATURE OF A GOOD STUDENT

6.3.5.1 Focus Group 1: Less Resilience/ High Academic Performance (Resilience < 3, Performance > 60)

Sub-Theme 1: Personal Traits and Academic Engagement

This theme emphasises active participation and commitment to learning. Good students exhibit a genuine interest in their education and demonstrate their engagement through various behaviours. Actively participating in class discussions by asking questions and seeking clarification demonstrates a commitment to understanding course material thoroughly. This behaviour promotes critical thinking skills and deeper comprehension. Participant LH2 noted, “[A good student] asks questions and understands topics being taught.” Attentiveness in class is essential for absorbing information effectively and maximising learning outcomes. Good students prioritise active listening and engagement during instructional sessions. As Participant LH6 mentioned, “A good student pays attention in class.” Consistent completion of homework assignments and exercises

demonstrates diligence and responsibility in academic endeavours. Good students recognise the importance of independent practice to reinforce learning. Participant LH4 highlighted, *“You have to do your homework and exercises.”* Then, maintaining a proactive approach to learning involves continuous engagement with course materials. Good students demonstrate a thirst for knowledge by seeking opportunities to expand their understanding beyond the classroom. As Participant LH2 stated, *“Learning ahead, try to go one step ahead of the class.”*

Secondly, social and emotional competencies play a significant role in academic success, influencing students’ confidence, curiosity, and resilience. Confidence is a hallmark of a good student, empowering individuals to tackle challenges and pursue academic goals with determination. Self-assurance fosters a positive attitude towards learning and personal growth. Participant LH5 noted, *“A good student is confident.”* Curiosity fuels intellectual exploration and fosters a love for learning. Good students exhibit a natural curiosity, demonstrating an eagerness to explore new concepts and ideas. As Participant LH1 mentioned, *“A good student should be curious.”*

Sub-Theme 2: Personal Discipline and Discipline

Personal discipline plays a critical role in academic success, encompassing key *behaviours* such as time management, self-regulation, and adherence to ethical standards. Effective time management and organisational skills enable students to balance academic responsibilities with personal commitments, contributing to overall success. Establishing study routines and managing time efficiently are essential in this process. As Participant LH3 noted, *“A good student balances home and school life and also makes a timetable for studies.”*

Moreover, good students exhibit self-discipline by adhering to *behavioural* expectations and ethical standards, which fosters a conducive learning environment and promotes respect for oneself and others. Participant LH3 further emphasised, *“Before you become a good student, you must know how to discipline yourself.”* In addition, avoiding negative peer influences is crucial for maintaining focus and prioritising academic goals, and good students demonstrate discernment in selecting positive social circles conducive to their academic growth. Participant LH3 also highlighted, *“Know how to limit your friends.”*

Furthermore, respect for institutional rules and regulations reflects good citizenship and promotes a culture of responsibility and accountability within the academic environment. Good students uphold these rules, recognising their role in maintaining order and contributing to a positive learning atmosphere. Participant LH7 noted, “*A good student obeys rules and regulations.*” Effective time management is consistently identified as crucial for academic success, with students emphasising the need for adequate time to study and complete assignments. Properly allocating time for studying allows students to thoroughly grasp concepts and prepare for assessments, optimising learning outcomes.

Sub-Theme 3: Support for Enhanced Academic Performance

Family involvement, particularly support from elder siblings, also plays a major role in students' academic journey by providing mentorship and guidance. Elder siblings serve as valuable academic mentors, offering support and guidance to younger siblings in their studies. Their assistance fosters a supportive learning environment at home, contributing to academic success. Participant LH3 noted: “*When you have elder siblings, you can go to them for them to help and support you in your academics.*”

Apart from mentorship roles, making sure that children have access to essential resources, including textbooks and technology, is a critical factor in supporting students' academic endeavours and promoting independent learning. Strong reading skills are fundamental for academic success as they enhance comprehension and facilitate learning across various subjects. Developing proficient reading abilities is crucial for students' overall academic advancement. Participant LH3 noted, “*Being a good reader.*” The availability of textbooks ensures that students have the necessary resources to supplement their learning and engage with the curriculum effectively. Textbooks serve as valuable references for studying and revision.

Students express the need for supplementary academic support to reinforce their learning and address individual learning needs. This assistance ranges from extra classes to personalised instruction provided by a personal teacher. Additional classes, whether within the school environment or at home, offer students focused instruction to reinforce concepts and clarify doubts. These sessions provide valuable opportunities for targeted academic support. Participant LH3 noted, “*Having extra classes both in school and at*

home.” The presence of a personal teacher can offer students personalised guidance and attention, catering to their specific learning requirements. This one-on-one interaction facilitates a deeper understanding of academic subjects. Participant LH1 mentioned, *“Having a personal teacher.”* Technology, such as computers or tablets, enhances learning by providing access to a diverse range of educational resources and research materials. It enables students to engage in independent study and expand their knowledge beyond the confines of the classroom. Participant LH1 highlighted, *“Having the gadget to study and do research.”*

6.3.5.2 Focus Group 2: High resilience/high academic performance {resilience > 3.5, performance > 70}

Sub-Theme 4: Academic Engagement and Diligence

There are several key traits that students must adopt to improve their academic performance and overall learning experience. Academic engagement and diligence are fundamental in this regard. Academic engagement involves actively participating in the learning process, which includes attending classes regularly, taking detailed notes, and asking questions to clarify any doubts (Bugbee et al., 2019). Diligence, on the other hand, requires students to consistently put in the effort to complete their assignments on time, study systematically for examinations, and strive for excellence in all academic endeavours (Yao et al., 2019). By leveraging their engagement and diligence, students can further benefit from developing additional traits that enhance their academic journey. Participants found that adhering to school rules and discipline, commitment to studies and effort, as well as being focused and goal-oriented provide a strong foundation for becoming a good student.

Participants indicated that by adhering to school rules and maintaining discipline, they create a structured and respectful learning environment. This adherence minimises distractions, promotes a sense of order, and fosters a positive atmosphere conducive to academic focus and personal growth. Following established guidelines also instils a sense of responsibility and accountability, helping students develop self-regulation skills that are essential for academic success and future professional environments. This not only benefits individual students but also contributes to a collective culture of respect and

cooperation within the school community. By upholding these standards, students are better equipped to navigate challenges, work collaboratively with their peers, and engage more effectively with their teachers. This not only enhances their immediate learning experiences but also prepares them for the demands of higher education and professional settings, where discipline and adherence to rules are equally critical. Participant HH9 noted: *"A good student is a person who always follows and respects and obeys school rules and is a smart person."* Participant HH2 commented: *"A good student is a person who dresses decently and obeys school rules."*

Next, ensuring that students remain committed to their studies and consistently put in the necessary effort is crucial for academic success. This involves dedicating sufficient time to complete assignments, thoroughly preparing for examinations, and actively engaging with the course material. Commitment to studies encourages a deeper understanding of the subject matter and helps students develop a strong work ethic. Consistent effort leads to improved academic performance and cultivates perseverance, equipping students with the skills and mindset needed to tackle future challenges in their educational and professional pursuits. Participants noted that by maintaining a high level of commitment to their studies, students are more likely to achieve their academic goals and build a foundation for lifelong learning. Participant HH6 stated: *"A good student is a person who puts more effort into his or her studies."*

The participants also noted that by maintaining a focus on their academic goals, students are better able to prioritise tasks, manage their time effectively, and stay motivated throughout their educational journey. Setting clear and achievable goals provides direction and purpose, guiding students towards success. With a goal-oriented mindset, students are more likely to persevere through challenges and setbacks as they remain driven by their overarching objectives. Moreover, participants highlighted that focusing on goals encourages students to seek out opportunities for growth and improvement, ultimately leading to a more fulfilling and rewarding learning experience. Participant HH1 said: *"A good student is someone who focuses on what he or she does."* Participant HH3 added: *"A good student takes books as a friend and always works towards his goals."*

Sub-Theme 5: Positive Personal Qualities and Values

Adopting positive personal qualities and values allows students to cultivate a strong foundation for both academic and personal growth. By adopting positive personal qualities, students develop a sense of character that not only benefits themselves but also contributes to a positive school community (Duckworth & Yeager, 2015). These values encourage respect for oneself and others, fostering meaningful relationships and enhancing the overall learning environment. Additionally, embracing positive qualities enables students to navigate challenges with grace and determination, ultimately leading to greater success in academics and beyond. Participants cited active listening and respect, altruism and supportiveness, and the avoidance of negative peer influence as key qualities that are essential for good students.

Participants highlighted that being an active listener and showing respect towards peers, teachers, and diverse perspectives greatly enhances the learning experience. Active listening involves fully engaging with others during discussions, lectures, and group activities by attentively processing information, asking clarifying questions, and providing thoughtful responses. This fosters meaningful communication, encourages collaboration, and allows for the exchange of ideas in a supportive environment. Moreover, demonstrating respect towards others involves valuing their opinions, beliefs, and backgrounds, even when they differ from one's own. By acknowledging and appreciating the diversity of perspectives within the classroom, students gain a broader understanding of the subject matter and develop empathy and tolerance. Additionally, showing respect creates a positive and inclusive atmosphere where everyone feels valued and empowered to contribute, leading to richer discussions and deeper learning opportunities. Participant HH6 stated: *"A good student is a good listener."* Participant HH1 commented: *"A good student respects the views of other students."*

Other important attributes that participants emphasised include altruism and supportiveness. Altruism involves acts of kindness and selflessness towards others, such as offering assistance, sharing resources, and providing encouragement. By cultivating an altruistic mindset, students contribute to a supportive and collaborative learning environment where everyone feels valued and supported in their academic endeavours.

Supportiveness encompasses actively offering help and encouragement to peers, particularly during challenging times. Whether through study groups, tutoring sessions, or simply lending a listening ear, students who demonstrate supportiveness create a network of mutual assistance that fosters growth and resilience. This spirit of support not only enhances individual learning experiences but also strengthens the sense of community within the school environment. Participant HH5 affirmed: *"A good student is someone who is not selfish, that is, helps to teach colleagues who do not understand."*

Ensuring that students are equipped with the skills and confidence to resist negative peer pressure is crucial for maintaining a positive learning environment. This involves understanding the potential risks and consequences associated with succumbing to negative influences, such as academic dishonesty, substance abuse, or harmful behaviours. Furthermore, promoting positive peer relationships and creating opportunities for meaningful social connections can mitigate the influence of negative peer pressure. Participant HH3 declared: *"If you want to be a good student, you do away with friends who have bad habits such as chasing girls."*

Sub-Theme 6: Academic Support and Resources

Participants noted that having access to additional learning resources is essential for supplementing classroom instruction and enhancing their understanding of complex subjects. These resources include a host of tools and avenues of information which offer alternative explanations and examples to reinforce learning. After-school classes or academic enrichment programmes were also highlighted as valuable resources, providing students with opportunities for additional instruction, practice, and reinforcement of key concepts outside of regular school hours.

According to participants, having access to a variety of additional learning resources plays a crucial role in enhancing their academic performance. Access to supplementary teaching and learning materials facilitates a more comprehensive understanding of the subject matter and allows students to explore topics in greater depth. These resources complement traditional classroom instruction and cater to diverse learning styles, ensuring that all students can succeed. They also offer flexibility, allowing students to

review materials at their own pace and revisit topics as needed. Participant HH9 noted, *"I need more supplementary books and after-school classes."*

Another crucial aspect of academic assistance is providing individualised support tailored to each student's unique needs and learning style. This personalised approach recognises that students have different strengths, weaknesses, and preferences when it comes to learning. By offering individualised support, educators can identify and address specific areas where students may require additional help or guidance. This may involve one-on-one tutoring sessions, personalised learning plans, or targeted interventions to address academic challenges. Providing mentors to students can also greatly benefit their academic performance. Mentors serve as role models and provide guidance, encouragement, and support to help students navigate academic challenges. Mentoring relationships allow students to receive personalised advice, feedback, and encouragement from someone who has experience and expertise in their field of study. Participant HH1 noted, *"I need a home tutor to teach me. (before I come to school)."* Participant HH6 asserted: *"We must have good mentors."*

6.3.5.3 Focus Group 3: High resilience/low academic performance (resilience > 3.5, performance < 50)

Sub-Theme 7: Academic Diligence

The role of academic diligence is crucial in achieving success and overcoming challenges. Academic diligence involves consistent effort, dedication, and a proactive approach to learning. Students who exhibit academic diligence prioritise their studies, set clear academic goals, and develop effective study habits (Cao et al., 2018). They are committed to attending classes regularly, completing assignments on time, and actively participating in classroom discussions. Participants noted that portraying academic diligence not only leads to better grades and academic performance but also builds a strong work ethic and resilience. This dedication helps them manage their time effectively, reduce procrastination, and stay motivated even during difficult periods.

Good students are characterised by their dedication to learning. The commitment to consistent learning involves not only completing assigned tasks but also seeking out additional knowledge and skills beyond the classroom. These students regularly review

their notes, engage in supplementary reading, and take advantage of resources such as study groups. Their proactive approach to education means they are always looking for ways to deepen their understanding and stay ahead in their studies. Participant HL10 highlighted, *"A good student is someone who learns."* Participant HL6 declared, *"Someone who is intelligent and does homework and exercises."*

Engaging in regular revision and learning beyond classroom instruction is crucial for academic excellence. Regular revision consolidates knowledge and aids long-term retention, which is essential for sustained academic success. The practice of continuous learning ensures that students remain up-to-date with the latest developments in their subjects, allowing them to build on their existing knowledge and develop a deeper understanding of the material. This approach reinforces learning and helps identify areas needing further clarification. Additionally, proactive learning prepares students for future lessons, making new information more accessible and comprehensible. Participant HL5 noted, *"After classes, a good student keeps revising."* Participant HL4 added, *"After being taught something in class, I go over the topic and try to remember and also solve questions."* Participant HL6 buttressed, *"A good student learns ahead of the subject so it would be fresh in mind, and I also go over my notes."*

A good student is often identified by their success in academic endeavours, demonstrating proficiency and competence in their studies. This success is reflected in their high grades, thorough understanding of the material, and ability to apply knowledge effectively in various contexts. These students consistently perform well on exams, assignments, and projects, showcasing their dedication to learning and their mastery of the curriculum. Participant HL5 noted, *"A good student is someone who does well in his academics."*

Sub-Theme 8: Discipline And Positive Behaviour

Ensuring respect and responsibility is fundamental to creating a positive and effective learning environment. Respect involves treating teachers, classmates, and school property with consideration and courtesy. Students who embody respect listen attentively, follow classroom rules, and value the contributions of others. Responsibility, on the other hand, encompasses being accountable for one's actions and obligations. This includes

completing assignments on time, being prepared for class, and taking ownership of one's learning. Participants highlighted that these traits are the hallmarks of a good student and are essential for creating a supportive and productive educational environment.

Respecting teachers is seen as a fundamental trait of a good student. The respect shown towards teachers fosters a positive and conducive learning environment where open communication and mutual understanding can flourish. Students who respect their teachers are more likely to listen attentively, follow instructions, and engage constructively in classroom activities. Participant HL5 noted, "*A good student is someone who respects his or her teacher.*"

Being responsible, which encompasses a range of positive behaviours and attitudes, is a key trait of a good student. Responsible students are proactive in seeking help when needed, whether from teachers, peers, or additional resources. They take ownership of their learning by actively participating in class, completing assignments diligently, and preparing thoroughly for exams.

Students who exhibit a high level of discipline and positive behaviour are often more successful academically and socially. These students can manage their time effectively, avoid procrastination, and stay committed to their academic goals despite distractions and challenges. By demonstrating discipline and positive behaviour, students create an orderly learning environment that facilitates both their own success and that of their peers. This approach not only helps them achieve their academic objectives but also builds character and prepares them for future personal and professional challenges.

Discipline, including self-control and adherence to rules, is essential for being a good student. The ability to maintain focus, manage time efficiently, and persist through challenges allows students to meet their academic responsibilities consistently. Discipline helps students avoid distractions, stay organised, and prioritise their tasks, leading to better performance in their studies. It also fosters a respectful and productive classroom environment where students can learn and collaborate effectively. Participant HL7 noted, "*Someone who is well disciplined, learns and comes out well.*"

A good student pays attention during lessons, showing their engagement and interest in learning. Using active listening skills, they focus on the teacher's instructions, participate in discussions, and take thorough notes. This attentiveness allows them to grasp new concepts more quickly, ask relevant questions, and retain information more effectively. By staying present and involved, students can make meaningful connections between different topics, which enhances their overall understanding and academic performance. Participant HL8: *"Someone who pays attention to the teacher when the lesson is going on."*

Adherence to school rules and regulations is a fundamental trait of a good student, ensuring a conducive learning environment. Another critical component is the student's ability to respect authority and understand the importance of maintaining discipline within the school setting. By following rules and regulations, students contribute to a structured and orderly environment that facilitates effective teaching and learning. This compliance not only reflects their respect for the institution and its values but also promotes a sense of responsibility and accountability. Participant HL10 noted, *"Obeying rules and regulations in the school."* Participant HL3 added, *"You should obey rules."*

Effective communication and respect for others are crucial for a harmonious learning environment. Politeness in communication demonstrates maturity and respect for peers and educators, enhancing interpersonal relationships and classroom dynamics. This respectful approach encourages open dialogue, fosters mutual understanding, and reduces conflicts, creating a positive atmosphere conducive to learning. When students communicate politely, they are more likely to collaborate effectively, share ideas constructively, and support each other's academic and personal growth. Participant HL6 noted, *"A good student must speak politely."*

Punctuality and a strong work ethic are essential traits of a good student, reflecting their dedication and time management skills. Punctuality and diligence are indicative of a student's commitment to their education and ability to manage their responsibilities effectively. The habit of arriving on time for classes and submitting assignments promptly shows respect for the academic process and allows students to maximise their learning

opportunities. Participant HL7 noted, "*A good student is punctual to school and learns hard.*"

Sub-Theme 9: Active Engagement in Learning

Engaging in the learning process actively is a hallmark of a successful student. Active engagement involves participating in class discussions, asking questions, seeking clarification, and contributing ideas. Students who are actively engaged in their learning take a proactive approach, going beyond passive listening to immerse themselves fully in the subject matter.

A good student actively seeks to understand the material, demonstrating a proactive approach to learning. Participants highlighted the importance of students not hesitating to seek clarifications and ask for help when needed. Whether it is during class, after school, or through online resources, students who actively seek clarification show a commitment to mastering the subject matter and addressing any areas of confusion. This willingness to seek help demonstrates humility and a growth mindset, recognising that learning is a continuous process that requires support and guidance. Participant HL6 noted, "*I seek clarifications whenever I don't understand something.*" Participant HL9 added, "*A good student will seek help when he doesn't understand.*"

Effective use of available resources, such as dictionaries and research tools, is indicative of a good student's approach to learning. Utilising a dictionary to understand unfamiliar terms enhances vocabulary and comprehension, which is critical for academic success. This proactive approach demonstrates a student's initiative and resourcefulness in acquiring knowledge and overcoming learning barriers. Conducting research extends learning beyond the classroom, fostering a deeper understanding of subjects. Participant HL10 noted, "*A good student uses a dictionary to look up words they do not understand.*" Participant HL5 added, "*A good student does research on what has been taught.*"

Active participation in school activities demonstrates a student's engagement and enthusiasm for the educational experience. Participation in extracurricular activities enriches the educational experience, promoting holistic development. Involvement in clubs or sports teams allows students to explore their interests, develop leadership skills,

and foster meaningful connections with peers and mentors. Moreover, engaging in extracurricular activities provides opportunities for students to apply classroom learning in real-world contexts, enhancing their social and emotional intelligence. Participant HL8 noted, "*A good student partakes in school activities.*"

Sub-Theme 10: Assistance Needed at Home

Students tend to express the need for a supportive home environment to enhance their academic performance. Combining schoolwork with domestic responsibilities can be challenging, so they often request help with managing household chores to free up more time for studying. Participants cited several interventions that will enable them to balance their academic and personal responsibilities better, ultimately improving their academic performance in the process.

Students emphasise the importance of parental involvement in their academic progress. They express a desire for their parents to be more engaged in their educational journey by reviewing their academic results and providing encouragement. The presence of parents in school-related activities, such as attending parent-teacher conferences and school events, is also valued. Students believe that active parental participation not only boosts their motivation but also helps identify areas where they might need additional support. Participant HL5 noted, "*I want my mother to look through the results I bring from school after writing the examination and question or commend me on my performance and also get involved in my academics.*"

Students highlight the motivational impact of knowing that their parents and family care about their academic success. Another essential aspect is the emotional support provided by family members, which helps students cope with stress and stay focused on their studies. They appreciate when their family acknowledges their efforts and achievements, as this recognition boosts their self-esteem and encourages them to strive for further success. Participant HL10 declared: "*To know that they care about me will motivate me to perform better.*"

Students indicate a need for extra tutoring outside of regular school hours to help them better understand the material and perform well academically. Through additional tutoring

sessions, they can receive personalised attention and have complex concepts explained in more detail, which might not always be possible in a regular classroom setting. This extra support can be provided by professional tutors, teachers offering after-school help, or even family members who are knowledgeable in specific subjects. Participant HL3 noted, *"I need an extra-class teacher to help me understand topics after school."* Participant HL6 added, *"I also need extra classes at home."*

Some students need more time to study and fewer household chores, which can interfere with their study time. This includes having a structured schedule that allows them to allocate sufficient time for both academic and personal activities. By reducing domestic responsibilities, students can focus more on their schoolwork without the added stress of household tasks. Support from family members in managing these responsibilities can make a significant difference, enabling students to prioritise their studies and improve their academic performance. Participant HL2 noted, *"I need more time to study, and they [my parents] should reduce the house chores for me."*

Sub-Theme 11: Assistance Needed at School

The academic environment is another critical dimension where students feel they need support to perform better. A conducive learning atmosphere, equipped with necessary educational resources, is essential for their success. Participants expressed the need for teachers and other critical stakeholders within the teaching and learning environment to be supportive and understanding of students' individual needs and learning styles.

Students require teachers to provide clearer and more detailed explanations of class topics to enhance their understanding. The need for better explanations of class topics stems from the desire for total comprehension and mastery of the material. Students seek clarity on complex concepts, thorough examples, and real-world applications to deepen their understanding and engagement with the subject matter. Clear explanations not only facilitate learning but also promote confidence in tackling assignments and assessments. Participant HL10 noted, *"For the teacher to explain to me class topics better at school."*

Students express a need for additional classes at school, especially for those who are willing to pay for extra tutoring. The school's management may consider offering

supplementary classes outside of regular school hours to accommodate students' needs for extra support and enrichment. These additional classes could be tailored to specific subjects or topics where students require further assistance or want to delve deeper into the material. By providing these opportunities, the school can cater to diverse learning preferences and help students reach their full academic potential. Participant HL7 noted, *"I need extra classes to be done in the school for us who are ready to pay for it to learn."*

There is a call for stricter discipline in the classroom, including expelling students who engage in substance abuse and removing disruptive students from the classroom. The call for stricter discipline in the classroom reflects concerns about maintaining a conducive learning environment that fosters academic growth and safety. Participants emphasised the need for clear and consistent enforcement of classroom rules to deter disruptive behaviour and promote respect for teachers and peers. They advocated for consequences for students who engage in substance abuse or consistently disrupt learning, such as expulsion or placement in alternative educational settings. Participant HL5 noted, *"We should expel all the students engaging in substance abuse from the school."* Participant HL6 added, *"If during lessons any student disturbs, teachers should sack them."*

6.3.5.4 Comparative Analysis of Sub-Themes Under Theme Three (3) Across Focus Groups

Across FG1, FG2, and FG3, there is a consensus on the significance of personal discipline and commitment to academic success. All three groups highlight the importance of adhering to rules, managing time effectively, and maintaining focus on academic goals. FG1 emphasises personal discipline and balancing school with personal life, while FG2 underscores adherence to school rules and effort in academic engagement. FG3 adds the dimension of proactive learning and regular revision, which is less emphasised in FG1 and FG2. While FG1 and FG2 focus more on self-regulation and goal-setting, FG3 uniquely highlights the importance of continuous learning beyond classroom instruction. Each group provides a complementary perspective, reinforcing the multifaceted approach required for academic excellence. Table 6.5 sets out Common Sub-Themes across the focus groups under Theme 3.

Table 6.5 : Common Sub-Themes Across the Focus Groups Under Theme Three (3)

Aspect	FG1	FG2	FG3
Personal	Emphasises time	Highlights adherence to	Focuses on academic
Discipline	management and self-regulation, balancing home and school life	school rules and discipline, creating a structured environment	diligence, including consistent effort and dedication
Engagement Beyond Classroom	Not explicitly mentioned	Not specifically addressed	Highlights the importance of regular revision and additional learning (research)

6.3.6 THEME FOUR: PERCEPTION OF STUDENTS' RESILIENCE

6.3.6.1 Focus Group 1: Less Resilience/ High Academic Performance (Resilience < 3, Performance > 60)

Sub-Theme 1: Pathways to Achievement and Fulfilment

Success is often defined by the attainment of personal goals and ambitions, encompassing both short-term objectives and long-term aspirations. The realisation of these aims signifies accomplishment and fulfilment. Participants view success as the fulfilment of personal goals and aims, reflecting their individual aspirations and desires. Participant LH3 stated the need for "*achieving the goals and aims you have.*"

Secondly, success is associated with a sense of fulfilment and satisfaction, often tied to the attainment of material wealth and possessions. This perspective highlights the role of material abundance in defining achievement. For some participants, success is equated with having everything desired in life, leading to a feeling of satisfaction and contentment. Participant LH1 affirmed: "*Having everything you want in life, so you feel satisfied.*"

Lastly, success is viewed as the outcome of diligence and perseverance, where individuals meet their needs through hard work and dedication. This perspective underscores the importance of a strong work ethic in achieving success. Participants emphasise the significance of working hard to fulfil their needs, highlighting the correlation between effort and success. Participant LH8 remarked: "*Having all your needs, which means you must also work hard to get there.*"

Sub-Theme 2: Self-Perception of Toughness

Participants exhibit varying degrees of self-perceived toughness, experiencing moments of strength and vulnerability. This fluctuation in self-perception reflects the dynamic nature of resilience and coping with adversity. Individuals express a mixture of feelings regarding their toughness, alternating between moments of strength and moments of weakness. Participant LH3 commented: *"I see myself as tough, and other times I see myself as weak because some of the challenges overwhelm me."*

Participants respond differently to challenges, experiencing both discouragement and persistence in their pursuit of goals. These contrasting responses demonstrate the complexity of navigating obstacles and adversity. Many participants admit to feeling discouraged when faced with challenges, which can impact their confidence and resilience. Participant LH7 stated it as follows: *"I get discouraged easily."* Despite experiencing discouragement, some participants demonstrate persistence and resilience, continuing to push forward in the face of adversity. Participant LH2 affirmed: *"I keep pushing."*

6.3.6.2 Focus Group 2: High resilience/high academic performance {resilience > 3.5, performance > 70}

Sub-Theme 3: Perceptions of Success

Success may be defined in various ways, including academic achievement, personal growth, career advancement, and fulfilment of goals and dreams. Understanding students' perspectives on success can inform educators and policymakers about the factors that are most meaningful and relevant to students' lives, helping to tailor educational experiences and support systems to meet their needs and aspirations better. Participants detailed the different dimensions of success that resonate with them personally.

For many students, success is closely tied to the accomplishment of their individual goals. This could include academic goals, career aspirations, personal development objectives, or any other targets they have set for themselves. Success, in this context, is viewed as the fulfilment of one's ambitions and aspirations, reflecting a sense of personal

achievement and fulfilment. Participant HH3 noted it is, "*Achieving all my goals.*" Participant HH9 declared, "*It means achieving all my goals and having all that I want.*"

Another perspective on success is the realisation of one's dreams. Students perceive success as the actualisation of their aspirations and desires, whether they are related to education, career, relationships, or personal growth. This definition emphasises the importance of dreaming big and working towards turning those dreams into reality. Participant HH7 noted, "*Success is when I make my dreams come true.*"

For some students, success is synonymous with freedom and the ability to have anything they desire. This definition emphasises the idea of financial independence, autonomy, and the ability to live life on one's own terms without constraints or limitations. The pursuit of freedom and fulfilment extends beyond traditional notions of academic achievement and career success to encompass a holistic sense of well-being and personal satisfaction. Students who prioritise freedom and fulfilment often seek opportunities that allow them to explore their passions, pursue meaningful experiences, and cultivate a sense of purpose in their lives. They value flexibility and adaptability, choosing paths that offer opportunities for self-expression, creativity, and personal growth. Participant HH2 noted, "*Success means freedom and having anything I want.*"

Success is perceived as a journey or destination for some students. It is seen as a continuous process of growth, learning, and self-improvement rather than a singular achievement. This perspective highlights the importance of progress and development in defining success. The insightful recognition of achievement as a journey underscores the significance of perseverance, resilience, and dedication in the pursuit of goals. Students who view success as a journey understand that setbacks and challenges are inevitable along the way. Rather than being discouraged by obstacles, they see them as opportunities for growth and learning. This mindset fosters resilience and adaptability, enabling students to navigate through difficulties and emerge stronger and more determined to succeed. Participant HH6 noted, "*Success is a journey/destination to me.*"

Success is also viewed in terms of its impact on others. Students see success as not only benefiting themselves but also positively influencing the lives of those around them. This

perspective emphasises the importance of contributing to the well-being and happiness of others as a measure of success. The recognition of success as a communal endeavour underscores the interconnectedness of individuals and the significance of empathy, compassion, and social responsibility. Students who prioritise the impact of their success on others understand that true fulfilment comes from making a positive difference in the lives of others. They recognise their role as active participants in their communities and strive to use their talents, resources, and opportunities to uplift and empower those in need. Participant HH8 noted, *"It is like I have reached my destination full of happiness, and other people are benefiting from me."*

Sub-Theme 4: Resilience and Toughness in Facing Academic Challenges

Resilience and toughness are requisite components for equipping students with the tools to surmount academic and personal challenges. These qualities enable students to maintain their focus and determination in the face of adversity, allowing them to recover from setbacks and continue pursuing their goals with vigour (Abubakar et al., 2021). Participants detailed the key traits that they believe are essential to maintaining their ability to surmount their academic challenges.

Many students expressed the importance of learning from their mistakes as a crucial component of resilience. They believe that making mistakes and facing consequences are essential for personal growth and improvement. By viewing errors as learning opportunities, students develop a stronger, more resilient mindset that helps them overcome future obstacles. Participant HH2 noted, *"Yes, because I learn from my mistakes after punishment and do not repeat them again."* Participant HH8 buttressed, *"Learning from mistakes is the best."*

Another significant aspect of resilience mentioned by the students is the ability to stay focused on their goals despite facing various challenges. This involves ignoring negative comments, insults, and other distractions and maintaining a clear vision of their objectives. This focus helps them to stay motivated and continue working towards their academic success. Participant HH8 noted, *"Yes, I think I am strong enough. When I pay attention to the insults and challenges then I get worried. However, I try to forget all the*

difficulties and challenges and focus on my goals." Participant HH9 added, *"Yes because I just try to forget all the pain in the past that I may have gone through."*

Some students highlighted that they use criticism, even when harsh, to improve themselves. They believe that scolding and critical feedback from teachers can be constructive, helping them become stronger, better, and more confident individuals. Employing criticism as a tool for self-improvement demonstrates a growth mindset, where challenges and setbacks are viewed as opportunities for learning and growth. By embracing feedback, both positive and negative, students develop resilience, adaptability, and a willingness to confront their weaknesses and areas for improvement head-on. This proactive approach to criticism empowers students to take ownership of their personal and academic development, fostering a culture of continuous improvement and lifelong learning. Participant HH1 noted, *"I take advice from scolding from teachers so I can grow up to become a stronger, better and a more confident person."*

Resilience is also demonstrated through the students' desire to prove those who doubt their abilities wrong. This determination to exceed expectations and show their capabilities serves as a powerful motivator, driving them to perform well academically. As they encounter scepticism about their potential, students harness these doubts as fuel for their determination to succeed. This desire to prove doubters wrong stems from a deep-rooted belief in one's abilities and a refusal to be defined by others' perceptions or limitations. Instead of succumbing to negativity or criticism, students channel their energy into proving their detractors mistaken. Participant HH2 noted, *"I am strong because I try to prove to people who look down on my academics wrong by performing well in my studies."*

Several students believe that facing and enduring challenges is an integral part of achieving success. They recognise that overcoming difficulties builds character and resilience, which are necessary for long-term success. Participant HH5 noted, *"Yes because one must face many challenges in order to become successful in life."* Participant HH6 added, *"Yes because experience is the best teacher."* Students also spoke about the internal strength and self-belief that help them cope with challenges. They understand that obstacles and difficulties are temporary and do not define their

potential or capabilities. Participant HH10 noted, "*I know that challenges I go through are not written on my body.*" Participant HH4 added, "*There is a saying that nothing is impossible because the word 'Impossible' means It is possible.*"

6.3.6.3 Focus Group 3: High resilience/low academic performance (resilience > 3.5, performance < 50)

Sub-Theme 8: Academic Excellence

Many students see realising academic goals and achieving high grades as primary indicators of success. Participants stated that excelling in their academics was how they viewed success. By ensuring that the limiting factors within their teaching and learning environment do not hinder their progress, they believe they can reach their full potential and achieve success. Success is viewed in terms of academic accomplishments and obtaining a desired career. This perspective emphasises the importance of education as a pathway to future success the participants expressed a strong desire to excel academically and pursue higher education to secure fulfilling careers and achieve financial stability. Participant HL5 asserted: "*A successful person is someone who has excelled academically and gotten his preferred future career or profession.*"

Despite the challenges inherent in their academic environments, participants emphasised that their ability to overcome these barriers constitutes another fundamental dimension of success. They recognise that navigating through obstacles such as large class sizes, limited resources, and teaching methods that do not cater to their learning styles requires resilience, determination, and resourcefulness. Success is also defined by the ability to overcome obstacles and challenges. This highlights the value placed on resilience and the journey of personal growth through adversity. Providing examples of resilience and perseverance in the face of adversity, participants emphasised the importance of resilience in navigating through setbacks and failures. They believe that these experiences build character and equip them with valuable life skills that extend beyond the classroom. Participant HL6 commented: "*Someone who has gone through challenges and has made it.*"

6.3.6.4 Comparative Analysis of Sub-Themes Under Major Theme Four Across Focus Groups

The table compares three groups (FG1, FG2, FG3) on their responses to challenges, learning from mistakes, goal focus, handling criticism, and proving doubters wrong. FG1 shows persistence in the face of challenges but lacks emphasis on key aspects such as learning from mistakes, goal focus, or handling criticism. FG2, on the other hand, highlights resilience, viewing mistakes and criticism as tools for growth, and stresses the importance of staying focused on goals while proving doubters wrong. FG3 also emphasises resilience and personal growth through overcoming obstacles, though it does not explicitly address learning from mistakes, goal focus, or criticism. Overall, FG2 demonstrates the most comprehensive approach to personal development in challenging situations, while FG1 and FG3 primarily focus on resilience without detailing other aspects of growth.

Table 6.6: Common Sub-Themes across the focus groups under Theme Four (4)

Aspect	FG1	FG2	FG3
Responses to Challenges	Some participants feel discouraged but show persistence.	Highlights resilience, learning from mistakes, and staying focused on goals	Views overcoming obstacles as a key dimension of success, emphasising resilience and personal growth
Learning from Mistakes	Not explicitly mentioned	Seen as crucial for personal growth and improvement	Not specifically addressed
Focus on Goals Despite Challenges	Not explicitly mentioned	Stressed as crucial for maintaining motivation and overcoming adversity	Not specifically addressed
Handling Criticism	Not explicitly mentioned	Seen as a tool for self-improvement and growth	Not specifically addressed
Proving Doubters Wrong	Not explicitly mentioned	Strive to prove doubters wrong.	Emphasises resilience in overcoming obstacles as a form of proving success

6.4 Thematic Analysis 2- (Teachers)

Teacher interviews were conducted to gain further insight into the factors influencing the resilience and academic performance of students. The analysis focused on extracting the relevant themes related to the relevant factors influencing students' resilience and academic performance as observed by teachers. The interview guide explored various aspects of teachers' perceptions and experiences related to student resilience and academic performance. It aimed to gather insights into how teachers understand these concepts and the factors influencing them. Questions delved into teachers' experiences and challenges, the availability and adequacy of resources, and the quality of school facilities. The guide also examined the level of respect and care for students by the school staff, the freedom to implement innovative teaching methods and the extent of parental involvement and support. Furthermore, teachers were asked to provide suggestions for enhancing the learning experience and to identify the major challenges facing both teachers and students. The guide concluded by inquiring whether teachers would recommend their school for a child's education, providing a comprehensive overview of their perspectives on the educational environment.

These interviews aimed to gather teachers' perspectives on their students' resilience and academic performance. It encompassed challenges and the strategies they employ to support their students' academic success and well-being. Eight teachers were interviewed. A description of the participating teachers is presented in the table below.

Table 6.7: Demographic Indicators of Teachers

Participant	Gender	School	Years of teaching experience in general / in current school
Participant 1	Female	1	20 / 1
Participant 2	Female	1	21 / 7
Participant 3	Male	1	25 / 2

Participant 4	Female	2	20 / 5
Participant 5	Male	2	22 / 3
Participant 6	Female	3	23 / 11
Participant 7	Male	3	30 / 2
Participant 8	Female	3	17 / 1

6.4.1 THEME ONE: CHALLENGES AND HOW THEY AFFECT ACADEMIC PERFORMANCE

6.4.1.1 *Sub-Theme 1: Impact of Home, School and Community Environments on Students*

Participants highlight the economic hardships faced by many families in the community, leading to unstable living conditions and housing insecurity. These challenges further compound the difficulties faced by students and their families, impacting their ability to prioritise and actively engage in education. Participant 5 noted, *“Most students here have their parents living in squatters and cannot afford the cost of accommodation. Sometimes, landowners come for their land and sack them, and they do not have any place to go.”* Overcrowded classrooms make it difficult to control and manage students effectively. The large class sizes lead to negative peer pressure, which can overshadow positive values and contribute to a disruptive learning environment. Participant 7 mentioned, *“Students are overcrowded in the classroom. It is difficult to control the class because of the above. This has resulted in negative peer pressure overcoming positive values.”*

The home environment of students presents a significant challenge for teachers, particularly when students are required to work late into the night to support themselves financially. This can impact students’ readiness to learn and their ability to engage fully in classroom activities. Participant 2 stated, *“Home environment of the students. Some*

students work till late at night, about 11 pm or 12 midnight, to feed themselves.” The home environment poses significant challenges for students. Many students face food insecurity, lack of proper accommodation, and an absence of basic learning tools like exercise books and pens. These conditions create a harsh reality that hardens children and hinders their academic performance. Participant 2 highlighted, *“The home environment is the key challenge. There is no food (feed themselves), accommodation, no exercise books or pens for learning resulting in very hardened children.”*

Balancing school and work responsibilities is another major challenge. Some students must work to support themselves, while others are living independently as squatters without parental guidance. This dual burden of work and study can severely impact their ability to concentrate on their education. Participant 2 noted, *“Some children are working; they are on their own. Some too don’t even have parents; they are staying on their own – squatters”*.

Lack of necessities and personal safety issues at home impede learning and performance. The challenges students face at home can severely affect their academic success. Without these essentials, students struggle to engage fully in their education. Such traumatic experiences create significant emotional distress, making it difficult for students to concentrate and excel in their studies. These home-related challenges underscore the need for comprehensive support systems that address both material and psychological needs. Participant 1 mentioned, *“Problems students face at home. These include coming to school on an empty stomach, not having basic stationery such as pens, pencils, exercise books, and other teaching and learning materials.”* Participant 1 also noted, *“Some have personal and emotional challenges, including being harassed every day in the house by their ‘madam’s’ husbands and sons to sleep with them.”*

Addressing accommodation problems, such as inadequate housing conditions, is vital for mitigating barriers to learning and ensuring that all students have access to stable and safe living environments conducive to academic success. Participant 2 highlighted, *“Accommodation problems. Just last week, the attendance was very low because it rained; some are staying in kiosks, some are staying in uncompleted buildings, so when it rains, their things get wet.”* The home and community environment in which a student

resides significantly influence their academic performance, highlighting the importance of supportive familial and societal contexts in shaping educational outcomes. Participant 4 stated, *"The home the person is coming from and the society/community he or she lives in."*

Sub-Theme 2: Limited Parental Involvement and Supervision in Shaping Students

Exposure to technological resources significantly impacts students' learning experiences. It highlights the importance of integrating technology into education to enhance access to information and foster digital literacy skills essential for success in the modern world. Participant 6 commented: *"The resources the children are exposed to in technology."* Parental involvement in monitoring their children's use of technology is crucial for promoting responsible screen time management and ensuring that digital devices are used constructively to support learning, underscoring the role of parental guidance in fostering healthy technology usage habits. Participant 6 added: *"The need for parents to monitor their ward's laptop or tablet and ensure they use time well."*

Parental irresponsibility exacerbates the challenges students face. Some parents fail to provide uniforms, learning resources, and the necessary support their wards need. This negligence can lead to psychological humiliation for the students, affecting their self-esteem and performance. Participant 8 described it as follows:

"It's just that some parents are not responsible when getting them uniforms and learning resources on time. Children don't like it when a teacher says, 'Have not your parents bought your books?' When you do that, the child gets humiliated, and it affects them psychologically." Participant 5: "Lack of parental care. This has resulted in wayward children... Some of the female students are living with their boyfriends."

Participants expressed concern over the lack of parental involvement in their children's education, citing low engagement rates ranging from 1/10 to 4/10. This lack of parental support is attributed to various factors, including economic hardship, survival priorities, and irresponsibility, highlighting a pervasive issue within the school community. Participant 2 voiced: *"I will say 1/10 are involved in their ward's education. That is the*

main problem in this school.” Participant 1 added: “Here it is 2 out of 10.” Participant 3 contributed: “Parents’ involvement is 4 out of 10.” Participant 5 expanded on the topic: “Most of them do not care. I will say 4/10 because most of the parents, due to the hardship in town, think of survival more than the child’s school.” Participant 4 concurred: “I will give 3/10 because some parents do.” Participant 8 was more optimistic: “I will rate the involvement of parents 50 – 50. I will say that 50% of the parents do get involved, and the remaining 50% are not responsible.”

Amidst the prevalent challenges, some parents demonstrate active involvement and support in their children’s education. Their contributions range from providing learning materials to participating in school activities and seeking additional resources for their children’s benefit, underscoring the potential impact of parental engagement on student success. According to Participant 6:

“Some parents come around to find out how their wards are doing; they try their best to provide them with learning materials.” Participant 3: “Parents are invited to look through their children’s exercise books, some parents have provided funds for teaching-learning materials, some have also visited and donated books for the library, and sometimes they bring in personnel from the health sector when we are having lessons on health to give us talks on hygiene and how to prevent infection.”

The lack of parental control poses a challenge for teachers, as it can result in students facing disciplinary issues and behavioural challenges that detract from the learning environment. Teachers may struggle to maintain classroom discipline and manage student behaviour effectively without adequate parental involvement and support. Participant 6 asserted that a major challenge was the *“lack of parental control.”*

Parental encouragement plays a vital role in motivating students to excel academically and pursue their interests. Positive reinforcement and active involvement from parents can significantly boost a child’s confidence and drive to succeed. Participant 7 explained:

“When parents encourage their children, it makes a big difference. They feel supported and are more likely to do well in school.” Participant 9: “Parents who

take an interest in their child's education and hobbies help them develop a love for learning and exploring new things."

The level of family support plays a crucial role in students' academic performance, underscoring the impact of home environments on educational outcomes and emphasising the need for collaborative partnerships between schools and families. Participant 2 explained it as follows:

"[A challenge is] family support for the children. If you have two children in your classroom, you see their performance; you can trace it back to the family they are coming from." Teachers express frustration over the lack of parental involvement in supervising their children's homework, leading to a breakdown in academic support systems. This neglect further exacerbates students' academic challenges and impedes their learning progress". Participant 2: "Sometimes you get so frustrated, you go to the class, and you ask them, 'Do you have parents?' because I've stopped giving homework."

Sub-Theme 3: Impact of Financial Challenges on Student Well-being and Academic Performance

Financial challenges can pose significant barriers to accessing quality education, underscoring the need for equitable resource allocation and support systems to address socioeconomic disparities and ensure all students have the opportunity to thrive academically. Lack of finances hinders students from accessing necessary resources and impedes their academic progress. Participant 3: *"Lack of finances to purchase teaching and learning materials."*

Teachers complain that the financial burden of parents has an impact on teachers. When parents struggle financially, students may face additional stressors that hinder their academic performance and disrupt classroom dynamics. Parental neglect manifests in inadequate care and financial support for their children's education, as observed by teachers. Instances of parents sending children to school without food or proper grooming underscore the challenges faced by students due to parental neglect and economic constraints. Participant 2 explained: *"They just bring their children at the age of four; some bring their children without food and then give them [money] to buy food."* Participant 5:

“Some parents/guardians do not even provide the stationery required for learning. Sometimes, teachers and the headmaster have to come in, to help them with food and school uniforms.”

This causes the teachers to provide from their own pockets. The need to provide books for students, for example, places a strain on teachers' finances and affects their ability to focus on their core work of teaching. Teachers must buy several textbooks to enhance teaching. Additionally, the lack of adequate reimbursement for these expenses exacerbates the financial burden on teachers. Participant 4 highlighted: *“Because of the aforementioned, more than one textbook is needed. Teachers use their own money to buy textbooks to teach students; sometimes we are reimbursed, but other times we bear the cost.”* Participant 5 clarified: *“To be honest with you, the biggest challenge is financial because the cost of living is high ... we lose focus. We are compelled to look for other means of survival affecting our interest and attention for our work which is core.”* Participant 3 added: *“Another major challenge for the teacher is salary motivation from our employer. Some of the teachers stay very far from the school, and this increases the cost of transportation.”* Participant 7 added: *“The biggest challenge for teachers is a governmental issue. Remuneration and salary - We are not well-catered for comparatively because though I have taught for 30 years, but I feel cheated. I lament, regret and work with pain. I am not mincing words.”*

Sub-Theme 4: The Impact of Discipline and Motivation on Student Learning and Participation

Students struggle with self-discipline, which is crucial for academic success. Without the ability to manage their time, stay focused on their studies, and avoid distractions, they face significant challenges in their academic journey. As Participant 1 noted, *“[The problem is] how to discipline themselves.”*

Furthermore, there are concerns about parents' resistance to disciplinary measures and their failure to address their children's behavioural issues. This lack of parental cooperation hampers efforts to maintain discipline and cultivate a conducive learning environment, ultimately affecting students' academic performance and overall well-being.

Participant 2 shared, *"Some, too, think this locality is for them, the Indigenous people; so, you can't punish, advise or reprimand their children."*

In addition to disciplinary issues, some students arrive at school without proper personal grooming, reflecting a lack of parental oversight and involvement in their children's hygiene and well-being. This neglect points to broader issues of parental engagement and responsibility within the community. Participant 2 remarked, *"Some even come without bathing; you see a child coming to school, and you see this child didn't bath; the mother is not there."*

Moreover, the absence of external motivation, such as awards from educational authorities, diminishes the incentives for students to strive for academic excellence. This highlights the need for recognition and rewards to inspire and motivate students to perform their best. According to Participant 3, *"There is no motivation externally from GES in the form of awards to encourage students to work hard for future benefits after the end-of-term examination."*

Another important aspect is providing encouragement and guidance to students. This is essential for instilling confidence, promoting a positive mindset, and nurturing a supportive learning environment conducive to academic success. Implementing guidance and counselling sessions can further address students' socio-emotional needs, empower them to overcome challenges, and foster their holistic development. As Participant 3 suggested, *"Encouragement to students to work hard and benefit in the future and the need for guidance and counselling sessions for students."*

Equally important is the willingness of students to engage actively in the learning process, a critical determinant of academic success. This underscores the need to foster intrinsic motivation and a positive attitude towards learning. Participant 4 emphasised *"the student's willingness to learn."* The readiness of individuals to engage in the learning process is vital for academic success. This highlights the importance of creating a conducive learning environment and addressing individual learning needs to promote student readiness and facilitate effective learning experiences. Participant 5 highlighted the requirement of the *"readiness of the person to learn."* To sum up, the challenge of

student readiness to participate actively in practical lessons further underscores the importance of fostering a conducive learning environment that promotes student engagement and encourages active participation in hands-on learning experiences. Participant 3 pointed out, that there is a "*challenge of readiness of students to participate actively in practical lessons*".

Sub-Theme 5: The Influence of Teaching Methods and Teacher Expertise on Student Learning

Teachers play a pivotal role in facilitating student learning by providing effective instruction and support. The expertise of educators is essential in helping students grasp fundamental concepts and achieve academic success. As Participant 4 observed, "*The teachers play a key role in helping the student understand the basics of learning.*"

The pedagogical methods employed by teachers are integral to shaping instructional practices and enhancing student engagement. This highlights the necessity of adopting diverse teaching strategies and methodologies tailored to the needs of individual learners, thereby fostering effective learning outcomes. Participant 6 emphasised this point, stating that an issue was the "*pedagogies (methodologies) that teachers use.*"

Furthermore, the teaching style utilised by educators significantly impacts student learning experiences and outcomes. It is imperative to implement pedagogical approaches that address diverse learning needs and encourage critical thinking skills, thereby contributing to academic achievement.

Adapting teaching methods to accommodate the diverse needs and learning styles of students is crucial for promoting understanding and optimising learning experiences. By customising instructional approaches to different levels of student comprehension, educators can enhance engagement and facilitate a deeper grasp of course material. Participant 3 highlighted this, stating the need to review "*the methods of teaching – Tailoring the method to meet the different levels of students with the main aim of fostering understanding.*"

Finally, the depth of a teacher's subject knowledge plays a significant role in influencing students' learning experiences and outcomes. A robust understanding of the content is

essential for educators to communicate concepts and support student comprehension effectively. Participant 5 remarked, *“The teacher’s understanding of the subject matter also helps to influence the children.”*

Sub-Theme 6: The challenge of securing Educational Resources and Facilities in Enhancing Teaching and Learning

The lack of essential facilities, such as science resources and apparatus for experiments, poses a significant challenge to effective teaching and learning. This shortage hinders students’ ability to engage in hands-on, experiential learning opportunities. Additionally, the availability of teaching and learning materials is crucial for creating enriching educational experiences. Adequate resources are necessary to facilitate effective teaching and enhance student understanding. As Participant 3 noted, *“Challenges in obtaining facilities such as science resources and apparatus for experiment,”* and Participant 4 emphasised the challenge of *“availability of teaching and learning materials.”*

The use of appropriate teaching tools, such as real objects for demonstration, significantly enhances instructional effectiveness. These tangible examples help students better understand lesson topics, underscoring the importance of diverse resources in supporting learning. Moreover, a conducive school environment is essential for optimal learning experiences. Schools must provide a peaceful and distraction-free setting that promotes concentration and engagement, thereby maximising students’ academic potential. Participant 5 stated that a consideration was *“[The] Tools that teachers need to be able to teach ... sometimes teachers need real objects for demonstration to facilitate understanding of lesson/topic,”* and also mentioned, *“The school environment should be conducive for learning - float vans and march around with noise sometimes to sell their products.”*

A significant challenge for teachers is the lack of adequate teaching and learning materials. Many teachers are compelled to purchase textbooks with their own money to ensure they can effectively cover the syllabus and enhance academic performance. This issue is compounded by the inconsistent availability of teaching materials, such as textbooks with varied content on the market, making it difficult for teachers to plan and deliver lessons effectively. As Participant 2 highlighted, *“Lack of teaching and learning*

materials,” and Participant 3 added, “[Difficulty in] obtaining teaching and learning resources...” with the observation that “Basically, most of the teachers buy their textbooks, if you want to cover the syllabus in your area of teaching to enhance academic performance.” Participant 4 further noted, “Teaching and learning materials such as the textbooks for instance in Social Studies, there are various textbooks with varied content (different) on the market.”

Technological resources also pose challenges in the educational environment. The need for computer accessories, such as cables, printers, scanners, and mice, is critical for making computer laboratories functional and enhancing learning experiences. However, the lack of these accessories, coupled with internet connectivity issues—particularly in areas prone to power cuts—limits teachers' ability to integrate technology into their teaching practices fully. Participant 3 remarked that there is a “need of computer accessories to facilitate learning and also make the computer laboratory functional. The computer accessories include the cables, printers, scanners, mouse and more,” and further mentioned, “Internet connection is also a big challenge to us because of power cuts sometimes.” The absence of projectors in classrooms is another significant issue, as it hinders the delivery of clear and engaging visual content, especially in large class sizes. Participant 3 highlighted the “need for a projector to display images to be seen clearly by the students, especially because of the large class sizes.”

Finally, one of the most pressing challenges facing students is the lack of teaching and learning materials. The unavailability of textbooks, particularly for the new curriculum, hampers the achievement of lesson objectives and makes it difficult for students to complete and submit exercises effectively. As Participant 1 emphasised, the “provision of teaching and learning materials” as a problem and Participant 3 added, “Lack of availability of textbooks for the new curriculum makes it difficult to achieve objectives of lessons, so students are unable to submit exercises.”

Sub-Theme 7: Impact of Psychological and Environmental Factors on Student Well-being and Academic Performance

Intimidation from instructors, supervisors, or peers negatively impacts academic performance by creating a hostile and fearful learning environment. This intimidation

undermines students' confidence and willingness to engage in academic activities, leading to increased anxiety, decreased motivation, and reluctance to participate in class, all of which hinder the learning process. As Participant 1 stated, *"Any intimidation from the instructor, supervisor of instructor, and students in the classroom will affect learning and academic performance."*

In addition to intimidation, understanding and accommodating the diverse intellectual levels of students is crucial for tailoring instructional approaches to meet individual learning needs effectively, ensuring equitable educational opportunities for all. Recognising the range of intellectual abilities allows educators to provide the necessary support for each student's academic success. Participant 2 highlighted, *"The intellectual level of the child. Some are high and medium, and others are very low. So, the level of the child's intellect also affects performance."*

Similarly, addressing low self-esteem among students is essential for promoting resilience and empowering them to overcome personal challenges that may otherwise hinder their academic performance. This highlights the interconnectedness between socio-emotional well-being and educational outcomes. Participant 2 noted the *"challenge of low self-esteem. Most of the students are staying with people and they are going through challenges and need resilience to overcome challenges."* Additionally, Participant 2 shared a specific example: *"I have a particular boy, he is very good but his uniform was torn. When he comes, he doesn't mingle—he just sits at one place, so you see him always in a pullover, whether the weather is hot or not."*

Furthermore, mental well-being, a safe learning environment, and adequate sleep are crucial factors for academic success. The interplay between a student's mental health, the environment in which they learn, and their physical well-being significantly impacts their ability to focus, engage, and perform academically. A supportive and secure environment, free from distractions and dangers, is essential for effective learning. Additionally, ensuring that students get adequate sleep is vital for maintaining optimal cognitive functioning and overall well-being, which directly influences their academic performance. Participant 1 emphasised the importance of, *"Having a sound mind. The environment in which the learning and teaching take place in terms of safety for academic*

work.” Participant 6 also pointed out a problem as the *“lack of adequate sleep. This results in the students dozing and sleeping during classes.”*

Moreover, substance abuse and teenage pregnancy present significant challenges to students’ health and academic performance, with both leading to severe consequences that can disrupt their education. Substance abuse not only endangers students’ well-being but also affects their behaviour and academic engagement, while teenage pregnancy often results in high dropout rates, especially among female students, limiting their future opportunities. Participant 6 highlighted the issue of substance abuse, stating, *“Some students also take drugs and may react badly to other students.”* Additionally, Participant 2 mentioned, *“Some get pregnant and drop out of school.”*

Sub-Theme 8: The Impact of Early Education, Teacher Effectiveness, and Classroom Conditions on Student Success

A weak foundation at the point of entry significantly influences a child’s academic trajectory, underscoring the importance of early childhood education in shaping long-term success. Early exposure to learning environments and foundational skills is crucial for students’ future academic performance. Participant 2 raised the issue that a *“weak foundation at the point of entry affects performance. Let’s say the child, for instance, before they start; in our area, for instance, some do not even go to kindergarten at all; they just start once they are six years old, and they bring them to class one.”*

Building on this, teachers serve as the primary resource in academic work, playing a central role in facilitating student learning and fostering intellectual development. The effectiveness of teaching is integral to shaping positive educational experiences and outcomes, highlighting the significance of skilled educators. Participant 7 mentioned the need for *“human resources—the teacher is the main resource in academic work.”*

In addition to the critical role of teachers, creating a conducive physical environment is essential for academic success. Such an environment includes well-maintained facilities and positive teacher-student relationships, which together foster a supportive atmosphere conducive to student engagement and well-being. A well-designed learning space enhances educational outcomes by ensuring comfort and reducing distractions. Participant 7 explained, *“The physical structure includes the buildings, the topography of*

the land, ornamental plants, the classroom and toilet facilities.” Participant 7 also highlighted the need for “Good teacher-student relationships—that is, if you have a scary teacher, the children will not enjoy the class.”

However, even with an ideal physical environment, addressing classroom challenges such as disruptions during inclement weather remains crucial. These challenges can significantly impact the learning experience by causing interruptions. Effective management of infrastructural issues is necessary to maintain an uninterrupted and productive learning environment. Participant 5 noted the problem of “classroom challenges—disruption of classes whenever it rains (*The wind blows, roof leaks and water come into the classroom*).”

6.4.2 THEME TWO: STRATEGIES USED TO OVERCOME CHALLENGES

6.4.2.1 Sub-Theme 1: The Role of Teacher-Student Relationships in Fostering Respect, Care, and Academic Success

The staff-student relationship reflects a culture of care and respect within the school community, demonstrated through acts of kindness and personal investment in students’ well-being. This culture is evidenced by teachers’ willingness to go above and beyond their duties, such as providing financial assistance for examination fees or adopting students in need, showcasing a deep sense of care and commitment to their students’ success. Participant 2 shared, “Yes, we do care a lot. So, some of us have even adopted children here that we feed every morning.” Moreover, all the teachers contribute to this effort. Participant 2 also mentioned, “Right now, one of the students was asked about his exam fee, and he said he has not gotten it, so I told the lady in charge that I would pay for it.” Participant 8 added, “Teaching is a calling, so if the calling is there, you treat the children as your own and love them. If you love them, then you respect them.” They also noted, “Generally, I will say that every teacher on this compound enjoys teaching them, and through that, the love comes.”

Furthermore, a focus on building relationships fosters a supportive and inclusive learning environment where students feel valued and respected. Teachers prioritise establishing meaningful connections with students, conveying the message that each student is important and deserving of care and attention. This approach cultivates a sense of

belonging and trust between staff and students, enhancing overall well-being and academic success. Participant 4 noted, *“Yes, we have built relationships with the students, and we make them know that they are very important to us.”*

Teachers exhibit a personal interest in students by treating them as their own children and going beyond academic responsibilities to support their holistic development. This personal investment is evident in teachers’ actions, such as purchasing books, footwear, and school uniforms for students, indicating a genuine commitment to nurturing and caring for their students’ needs. Participant 3 stated, *“Yes, because some of the teachers have even taken a personal interest in the students as their biological children to such an extent that they buy books, footwear, and school uniforms for students.”*

Additionally, implementing counselling sessions for parents, students, and teachers to address behavioural issues and promote discipline both at home and in school is essential. This holistic approach involves all stakeholders in fostering a conducive learning environment. Participant 1 suggested, *“Counselling sessions be held for 1. parents/guardians, 2. students & 3. Teachers ... Parents and teachers put in measures to enforce discipline at home and in school.”*

Moreover, teachers’ approachability and willingness to listen to students’ concerns contribute to a culture of respect and empathy within the school community. By creating open lines of communication, students feel empowered to seek guidance and support from their teachers, fostering a supportive and nurturing learning environment where every student’s voice is heard and valued. Participant 6 mentioned, *“The students can approach the teachers. They choose which teachers they want to discuss their problems with.”*

Participants highlighted the need for continuous assignment and monitoring by teachers, suggesting that this approach, possibly even on weekends, could further engage students and facilitate learning by providing ongoing feedback and support. Participant 5 noted that there is a *“need for continuous assignment and monitoring by teachers possibly on weekends. This could engage them further and facilitate learning.”*

6.4.2.2 Sub-Theme 2: The Importance of Staff Qualifications and Stability in Education

The consensus among participants affirms that the school staff possess good knowledge in their respective teaching areas. This acknowledgement underscores the competence and expertise of the teaching staff, highlighting their ability to impart knowledge effectively to students. The assurance of staff competency instils confidence in the quality of education provided within the school. Participant 1 stated, *“Yes. Staff have good knowledge in their areas of teaching.”* Participant 2 added, *“Yes. This is because, in JHS, we teach specific subjects, so every teacher has a subject(s), and everyone is teaching the subject that he or she can best handle.”* Participant 3 confirmed, *“Yes. The school staff have good knowledge in their area of teaching.”*

Moreover, the existence of a Professional Learning Community (PLC) serves as a platform for ongoing professional development and knowledge-sharing among staff members. Through collaborative efforts in PLC meetings, teachers and other stakeholders engage in discussions, exchange ideas, and address challenges, enhancing their understanding and mastery of the subject matter. This collective learning approach fosters a culture of continuous improvement and ensures that all staff members maintain high levels of expertise in their teaching areas. Participant 3 observed, *“My observation from PLC [Performance Learning Community] weekly meetings confirms it. It involves teachers and invites community people. At these meetings, all teachers come together and share ideas of what has been taught. We look at concepts, exchange ideas, and brainstorm/think through challenges. All teachers have in-depth knowledge in their subject area.”*

Furthermore, participants underscored the importance of staff qualifications, affirming that the teaching staff holds the necessary certificates and qualifications in their respective subjects. The presence of qualified staff members reflects the school’s commitment to hiring educators with the requisite expertise and knowledge to deliver quality education. This emphasis on qualifications reaffirms the school’s dedication to providing students with competent and knowledgeable teachers who are equipped to facilitate effective

learning experiences. Participant 5 mentioned, *“Yes. Staff have the required certificates in the subjects they are teaching – Diplomas and above.”*

Addressing staffing shortages promptly to prevent disruptions in the teaching-learning process is crucial. Timely replacement of retired or absent teachers ensures that students receive consistent instruction and support, maintaining continuity in their learning journey. Participant 2 highlighted, *“It is almost a year now that, the BDT [Basic Design and Technology] teacher went on pension. There is no one to replace him, so the students just talk during that period until it is over.”*

6.4.2.3 Sub-Theme 3: Empowering Teachers Initiative and Innovation through Flexibility

Teachers exhibit creativity by utilising personal resources to enhance practical learning experiences. This initiative demonstrates a commitment to innovative teaching methods as educators invest in supplementary materials to enrich students' learning. Participant 1 shared, *“I buy my materials for demonstration to the students.”*

Participants also affirm that they enjoy the freedom to innovate in their teaching practices. The encouragement to utilise diverse approaches, including technology and creative teaching methods like songs, fosters an environment conducive to experimentation and innovation in pedagogy. Participant 2 mentioned, *“Yes, I have the freedom. Last year, they had in-service training, and we were encouraged to use ICT and use other methods including even songs to teach.”* Participant 8 added, *“We have 100% freedom to try innovative means for better learning.”*

Furthermore, participants highlight the autonomy they possess to improvise and adapt their teaching methods as needed. This flexibility allows educators to tailor their approach to the unique needs and preferences of their students, ensuring a dynamic and engaging learning environment. Participant 5 stated, *“Yes, we have the freedom to improvise.”*

Additionally, teachers embrace experiential learning opportunities, taking students beyond the classroom to engage in practical, hands-on experiences. By organising visits to mechanic shops and theatres, educators provide students with immersive learning opportunities that complement traditional teaching methods, fostering deeper

understanding and appreciation. Participant 3 noted, *“Students are taken to a mechanic shop for a practical lesson on machines and also to have the opportunity to view and touch some tools physically and report their findings.”* Participant 7 added, *“Yes, that is why I have been taking the students to the University of Ghana – School of Performing Arts Theatre to watch performances such as the cockcrow; this is my initiative.”*

6.4.2.4 Sub-Theme 4: Enhancing Educational Outcomes Through Improved Teaching Strategies, Resource Provision, and Student Engagement

Encouraging continuous professional development for teachers to enhance their teaching strategies and effectiveness in the classroom is essential. Providing opportunities for teachers to refine their skills ensures that they can adapt to diverse learning needs and engage students more effectively. Participant 2 emphasised, *“Teachers should always improve upon their teaching strategies. We are doing our best, but there is room for improvement.”* In conjunction with professional development, ensuring the availability of teaching materials by stakeholders or government bodies is crucial to support quality education delivery. Access to essential resources such as textbooks is vital for effective teaching and learning, addressing gaps in resource availability to improve the overall learning experience. Participant 2 noted, *“Stakeholders or the government should also provide teaching materials; for example, we do not have French textbooks.”*

Addressing the shortage of these materials is another critical factor. The provision of essential resources such as textbooks and markers ensures that teachers have the tools they need to deliver quality instruction, thus enhancing the learning experience for students. Participant 4 mentioned, *“Teaching and learning materials such as textbooks and markers.”* Moreover, incorporating engaging teaching methods can greatly impact student interest and participation. Participants advocated for lessons that are “short and sweet,” which are designed to sustain students’ interest and enjoyment. By making lessons more interactive and enjoyable, teachers can foster a positive learning environment. Participant 7 suggested, *“Teach the children little and sweet; your lesson should be short and sweet – ‘enjoyable’ – to sustain students’ interest rather than being long and boring.”*

Equally important is the allocation of resources for effective instruction. Ensuring adequate resources for classrooms empowers teachers to deliver engaging lessons and supports students' academic progress, contributing to a better learning experience overall. Participant 5 stated, "*Resources – Teaching and learning materials to facilitate learning.*" Additionally, fostering closer teacher-student interaction addresses students' unique needs and circumstances effectively, which helps build a supportive learning environment. Participant 5 mentioned "*the need for teachers to get closer to these students because of their peculiar circumstances ... encourage them to sacrifice and learn.*"

Finally, promoting independent learning through increased assignments and research tasks can significantly enhance students' critical thinking skills. Engaging students in research-based activities allows them to apply knowledge beyond the classroom, thus enriching their learning experience. Participant 3 noted, "*Students should be given more assignments and research work to do at home and submit.*"

6.4.2.5 Sub-Theme 5: Improving Classroom Management to Enhance Learning Outcomes

Enhancing class management strategies to monitor student participation and maintain order in the classroom is crucial. Implementing effective class control measures ensures a conducive learning environment where all students can actively engage in learning activities without distractions. Participant 3 emphasised "*class control – the ability to monitor all students to participate.*"

In tandem with effective class management, reducing class sizes is essential for facilitating personalised attention and interaction between teachers and students. Smaller class sizes enable teachers to provide individualised support and address the diverse learning needs of each student, thereby enhancing the quality of instruction and learning outcomes. Participant 3 noted the need for a "*reduction of class size.*"

6.4.2.6 Sub-Theme 6: Specialised Learning Centres and Resource Provision for Enhanced Education

The recommendation for establishing specialised centres, such as science resource centres, home economics centres, pre-technical skills practical centres, and computer

labs, addresses the need for targeted facilities that cater to specific learning needs. These centres are designed to offer hands-on experiences and specialised instruction across various subjects or skills, thereby enriching the educational experience. Participant 6 suggested the *“provision of science resource centres, home economic centres, pre-technical skills practical centres, computer labs.”*

In addition to establishing these centres, participants emphasised the crucial role of the government in providing adequate learning and teaching materials. Access to essential resources, such as textbooks, is vital for students to fully engage with the curriculum and deepen their understanding of academic content. Participant 8 highlighted the need for *“Provision of learning and teaching materials by the government to enhance teaching and learning.”*

6.4.2.7 Sub-Theme 7: Parental Responsibility

Participants stressed the importance of parental involvement, particularly in providing essential learning materials like textbooks. While some parents may provide exercise books, ensuring access to textbooks is crucial for students to have comprehensive educational support at home. Participant 8 stated that *“parents must also be responsible in taking care of their children. For example, in the provision of textbooks (They provide the exercise books but not the textbooks because of the cost).”*

6.4.3 THEME THREE: THE NATURE OF A GOOD STUDENT

6.4.3.1 Sub-Theme 1: Assessment-Based Success and Mastery of Knowledge

Academic performance is perceived as the outcome of assessments and ratings, reflecting a student’s level of success. This system of assessment-based rating quantifies a student’s understanding and mastery of the subject matter through various evaluative measures, such as tests, assignments, and projects. These ratings not only influence a student’s academic trajectory but also shape their future opportunities in higher education and career prospects. Participant 1 stated, *“Academic performance is how well you are faring with your studies as far as rating through an assessment is concerned.”*

Building on this, academic performance involves mastering concepts and demonstrating understanding across various areas of knowledge. This comprehensive grasp of the

subject matter is crucial for true academic success, as it reflects a student's ability to apply, analyse, and synthesise information rather than merely memorise facts. Participant 3 mentioned, *"This is the ability to get on top of a concept in all areas of knowledge."*

From a teacher's perspective, academic performance is primarily viewed as the result of examinations and assessments. These evaluations measure students' understanding and skills, serving as benchmarks for how well students have assimilated the course material. The outcomes of these examinations often dictate academic standing, influence future educational opportunities, and serve as a critical metric for both student and institutional success. Participant 4 noted, *"Academic Performance is the performance of students after assessment through examination."*

Moreover, academic performance is measured through these assessments and evaluations, which gauge a student's performance in different subjects. This method provides insight into how well students are performing in various academic areas. Participant 2 stated, *"The measurement of a student's assessments is performance. It indicates how the child performs in the various subjects."*

6.4.3.2 Sub-Theme 2: Comprehension and Practical Application

Beyond examinations, academic performance encompasses the student's ability to comprehend and apply the material taught in class. This understanding is crucial as it reflects not just rote memorisation but a deeper grasp of the subject matter. Participant 4 stated, *"It is the ability [or] capability to understand what has been taught."*

In addition to comprehension, academic performance extends to the practical application of learned concepts. This involves integrating both theoretical knowledge and its real-world application. Effective academic performance is demonstrated when students can recall and utilise what they have learned, not only within the classroom but also in extra-curricular activities. Participant 5 mentioned, *"It is the ability to recall or put into practice whatever has been learnt in school, not only in the classroom but also in extra-curricular activities."*

Academic performance does not just encompass academic achievements and grades; it extends far beyond to involve a holistic and enduring transformation in behaviour. This

perspective underscores the importance of personal development and character growth alongside academic accomplishments, highlighting the interconnectedness between intellectual attainment and behavioural adaptation. Participant 6 views academic performance as a *“holistic permanent change in behaviour.”*

6.4.3.3 Sub-Theme 3: Integrating Behavioural Change, Personal Growth, and Academic Achievement

The role of behaviour reflection in assessing academic performance is further emphasised by Participant 6, who suggests that mere evaluation through grades does not provide a comprehensive understanding. This insight highlights the significance of behaviour as a crucial indicator of academic performance, indicating the need for a holistic approach that considers both cognitive achievements and behavioural changes. Participant 6 stated, *“Academic performance does not only depend on how we measure performance by evaluation. Because academically, if you are getting higher marks and it is not reflected in your behaviour, you wouldn’t say that you are doing well.”*

While high marks may secure employment, participants emphasised that possessing virtues and values is equally essential for effectively collaborating with others. This suggests that academic success is incomplete without the development of qualities such as integrity, empathy, and teamwork. Participant 6 mentioned, *“You can have the higher marks, and you would be employed. But if you don’t have certain virtues and values, you can’t work with other people, and it is all part of the academic performance.”* Moreover, growing academically proficient individuals may encounter challenges if they lack essential interpersonal skills. Despite academic prowess, some individuals struggle to collaborate effectively, which can lead to difficulties in maintaining stable employment. Participant 6 noted, *“There are some people who are academically good, but they cannot work with others, and you see them moving from one job to the other.”*

Therefore, true academic performance encompasses lasting behavioural changes, not just academic achievements. A holistic view integrates behavioural, emotional, and intellectual growth. Participant 6 also added, *“My understanding about academic performance should include all these things that are holistic.”* Evaluations and grades are not the sole indicators of academic success; personal growth and behavioural

improvements are equally important. Educators recognise that true academic performance encompasses not just measurable achievements but also the development of critical life skills and positive attitudes.

Finally, academic performance is assessed through ongoing evaluations and examinations to gauge understanding. Participant 8 noted, *“Evaluating a child at the end of a lesson. Here, evaluation is done mid-way through the semester and also at the end of the term through examination.”*

6.4.4 THEME FOUR: PERCEPTION OF STUDENTS’ RESILIENCE

6.4.4.1 Sub-Theme 1: Overcoming Educational Challenges through Adaptation

Teachers perceive resilience as the ability to endure and succeed despite challenging conditions. They emphasise the capacity to navigate tough situations while maintaining determination. Participant 1 stated, *“Resilience has to do with toughness or your ability to go through a situation irrespective of the conditions (challenges) that surround the situation ... you can sail through to achieve what you aim at.”* This perspective highlights resilience as a continuous effort towards achieving excellence despite obstacles. Teachers stress perseverance and determination in the pursuit of success, with Participant 8 mentioning, *“Basically, my understanding of the word resilience is that, pushing through in life to achieve excellence.”*

Resilience is also defined as the capability to overcome challenging situations. Teachers emphasise its importance in navigating adversity. Participant 4 noted, *“It is the ability or capability to overcome tough situations that you come across.”* This view aligns with the broader recognition of resilience as crucial for overcoming difficulties, as expressed by Participant 7: *“A resilient student is able to overcome all odds.”*

However, challenges such as a lack of basic educational supplies can significantly impact resilience. The struggle to meet academic requirements and feelings of marginalisation due to inadequate resources can hinder students' ability to persevere. Participant 7 shared, *“When your needs are not met fully, like you borrow a mathematical set and even a ‘common eraser’ to do construction in class, it is painful.”* Additionally, being an orphan introduces substantial psychological and emotional challenges that affect resilience. The

absence of parental support can exacerbate feelings of isolation, making academic and personal challenges more difficult to navigate. Participant 7 added, *“In this life being an orphan presents several challenges which make academic work more like a ‘psychological trauma.’”*

Resilience entails the capacity to bounce back and recover from difficulties. Teachers emphasise the importance of adaptability and perseverance in overcoming challenges. Participant 5 mentioned, *“The ability to bounce back, withstand and recover through a difficulty.”* This resilience involves facing hardships with the hope of achieving success, as highlighted by Participant 3: *“Resilience is going through hardships or difficulties with the hope of coming out with achievements.”*

Financial support plays a crucial role in resilience. Lack of financial resources can be a significant challenge for students, impacting their ability to remain resilient. Participant 3 stated, *“Lack of financial support from parents.”* Financial stability provides a foundation for resilience by reducing stress and allowing focus on overcoming other challenges. Adequate resources can alleviate concerns related to basic needs; as Participant 6 mentioned, *“The factors that influence or affect resilience are Finances.”* Financial difficulties, such as the inability to pay school fees or afford essential materials, directly impact a student’s ability to stay in school and be resilient. Economic challenges can exacerbate feelings of insecurity and limit access to educational opportunities, as noted by Participant 7: *“School levies are not promptly paid, and you are sacked from the classroom because you have not been able to meet the demands of the school.”*

6.4.4.2 Sub-Theme 2: Intrinsic Motivation and Personal Traits in Building Resilience: The Role of Self-Determination, Goal-Setting, and Inspirational Support

Intrinsic motivation emerges as a significant internal factor driving resilience, as individuals draw strength from their aspirations and future goals. Participant 1 stated, *“Personal motivation. Your aim of being in school, The motivation to become somebody in future, and knowing that my situation will not remain the same.”* This form of self-driven motivation is crucial for maintaining resilience. Furthermore, motivation from educational institutions can also play a role in enhancing resilience. For example, providing resources

like textbooks can alleviate some of the barriers to education. Participant 3 mentioned, *“Motivation from GES [Ghana Education Service], specifically inability to offer textbooks and exercise books, etc., to reduce the cost of education.”* Inspiration from others also significantly boosts resilience. Witnessing the achievements and perseverance of others can provide hope and direction, encouraging individuals to overcome their own challenges. Participant 6 noted, *“Getting motivation from other people as well. Other people can inspire you, and that influences resilience.”*

Teachers can play a vital role in motivating students by sharing personal stories of overcoming adversity. These narratives serve as powerful sources of inspiration and encouragement, particularly for students facing discouraging living conditions. Participant 5 stated,

“Teachers serve as motivation for the students, using their personal background and life story and how they were personally motivated bearing in mind the home situation and where some of the students live [accommodation challenges – squatters], which can discourage them in their academic pursuit.”

Goal setting is highlighted as an essential component of resilience, allowing individuals to maintain a positive outlook and focus on achieving their objectives despite obstacles. Participant 2 mentioned, *“I think the individual should be optimistic and have a goal or target ahead of you. Then, you can be able to reach your goal no matter the difficulties.”* This positive mindset helps individuals view challenges as manageable and setbacks as temporary hurdles rather than insurmountable obstacles. Participant 5 noted, *“When you see every problem to be solvable (be optimistic) and then when you realise that the downfall of a man is not the end.”*

A strong sense of self-determination further empowers individuals to navigate and overcome obstacles. Possessing the drive and determination to pursue goals despite challenges enhances one's resilience in the face of adversity. Participant 6 stated, *“Self-determination.”* Additionally, the ability to regulate emotions is crucial for resilience. Managing stress and maintaining psychological well-being amidst challenges is essential for sustaining resilience. Participant 2 mentioned, *“The need to regulate your emotions.”*

Things are not easy, but if you can try and regulate your emotions, things will not get out of hand.”

Positive personal traits, such as humility and respectfulness, can also enhance resilience. These traits foster positive relationships and create opportunities for collaboration and support within the school community. Good character promotes adaptability and effective communication skills, contributing to resilience. Participant 7 noted, *“Good character – (humble and respectful). This can open opportunities for the individual.”*

6.4.4.3 Sub-Theme 3: The Role of External Support and Role Models in Enhancing Resilience

External support systems, including encouragement from peers and mentors, play a vital role in fostering resilience. Positive reinforcement and emotional support from others provide individuals with the reassurance and motivation needed to persevere through challenges. Participant 1 stated, *“The encouragement you receive from others also helps us to go through the challenges and be successful.”* However, the absence of support or the presence of discrimination among siblings can undermine a student’s resilience. Such negative experiences add emotional stress and erode the sense of belonging and support within the household. Participant 7 highlighted the issue of *“Discrimination in the family.”*

Having role models within the community who have overcome adversity serves as a significant source of inspiration and motivation. Observing individuals who have achieved success despite challenges encourages students to endure their own difficulties. Participant 3 shared, *“Role models in the community (who have reached higher heights in society) This encourages students to endure difficulties.”* Participant 5 added, *“Role models – When you see people who have also made it.”* Teachers, too, play a crucial role in shaping students’ resilience by serving as role models. Their behaviour, attitudes, and interactions can inspire resilience by demonstrating perseverance, empathy, and positive coping strategies. Participant 8 stated, *“Teachers can play a role model in a child’s life.”*

Intelligence also contributes to resilience by enabling students to gain peer respect and support. Intelligent students often gain respect and attention from their peers, which can foster a sense of belonging and provide emotional and academic support. Participant 7 noted, *“If you are intelligent, no matter the situation, you can overcome. By teaching*

others, you gain respect and attention from your mates, and this can enable you to receive assistance.” Additionally, peer support networks are crucial in motivating individuals to persist through difficulties. Collaboration and mutual assistance among peers provide emotional validation, encouragement, and practical help, significantly enhancing resilience. Participant 8 mentioned, *“A student can look up to a fellow peer to push through in life.”*

In summary, encouragement from peers, family, and mentors, along with positive personal traits and role models, is critical in fostering resilience. Emotional support and reassurance from these external sources equip individuals with the motivation and confidence needed to overcome challenges. Participant 6 emphasised the *“ability of others to support you, let me say encouragement from others”*.

6.5 Conclusion

This chapter has provided a comprehensive examination of various dimensions related to students' academic performance and resilience through qualitative analyses. The qualitative phase, through focus groups with students and interviews with teachers, explored deeper insights into the nature of academic achievement and resilience. Themes such as assessment-based success, comprehension and practical application, behavioural change, and the use of technology were thoroughly examined. Additionally, the resilience theme highlighted the critical role of overcoming challenges, intrinsic motivation, and external support in fostering students' perseverance. The integration of these findings underscores the multifaceted nature of academic success and resilience, emphasising the importance of both measurable performance indicators and the nuanced, holistic development of students. The themes extracted from students (focus groups) and teachers (interviews) have been presented.

CHAPTER SEVEN: CONCLUSIONS AND RECOMMENDATION

7.1 Introduction

Previous chapters five (5) and six (6) presented the quantitative and qualitative findings of the study. In the quantitative study, seven main factors of resilience were obtained after factor analysis of the field data. The qualitative findings also employed thematic analysis to reveal relevant data themes that were necessary to answer the questions. This chapter will respond to the research questions and provide a summary, conclusions and recommendations of the study.

The primary research questions guiding the study are repeated below for ease of reference:

1. What factors influence resilience in students?
2. What factors indicate high academic performance in students?
3. What factors indicate low academic performance in students?
4. What factors influence less resilience in students?
5. What factors influence resilience and high academic performance in students?
6. How do students and teachers explain resilience?
7. How do students and teachers explain academic performance?

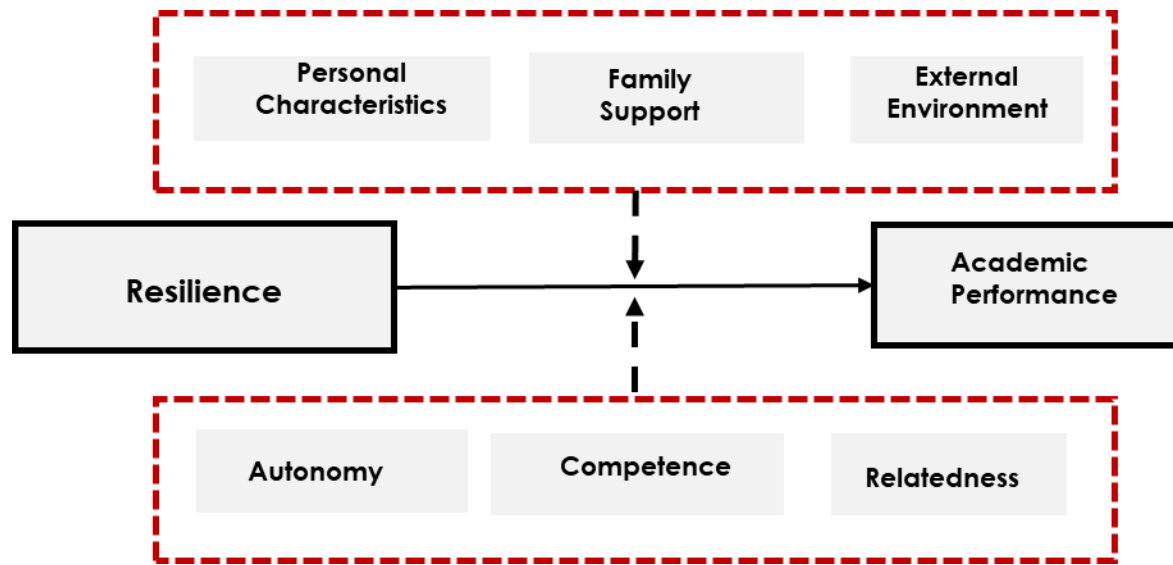
This study employed a mixed-methods approach to address research questions. The study primarily began with a quantitative phase where students completed the resilience scale R-MATS. Subsequently further in-depth analysis was done with focus group discussions with students and interviews with teachers. Research Question 1 was answered quantitatively using the R-MATS scale. In contrast, Research Questions 2–7 were answered using the quantitative basis as the criteria for the selection of students and progressed with the qualitative phase. However, all information gleaned from teachers, which was used to answer parts of Research Questions 6 and 7, was obtained qualitatively. The mixing of approaches occurred in the second phase of the study, where quantitative data from the resilience scale (resilience means) and academic performance (mean scores of students from four core subjects) informed the selection of participants

(based on set criteria) for the focus group discussion. Thereafter, the integration of quantitative and qualitative data sets was used to answer Research Questions 2–7.

7.2 Answering the Research Questions

This research was conducted to understand key attributes and strategies leveraged by resilient students to influence their academic performance. In addressing the research questions, the conceptual framework of the study, which was adapted from the resilience theory and self-determination theory, served as the guiding lens. This framework, which encompassed core factors such as personal characteristics, family support, and the external environment from the resilience theory, as well as autonomy, competence, and relatedness from the self-determination theory, was foundational in shaping the themes and sub-themes identified through the three focus groups: the less resilience-high academic performance group, the high resilience-high academic performance group, and the high resilience-low academic performance group. Each theme and sub-theme generated aligned with this framework, underscoring how these factors interplayed to influence resilience and, consequently, academic performance. The answers to the research questions provided below have been framed within this conceptual framework that is shown below. With the framework serving as a roadmap, the research questions are addressed in the subsequent sections.

Figure 7.1: Conceptual Framework on Resilience and Academic Performance



Refer to Figure 3.1

7.2.1 Research Question 1

Research Question 1 (RQ1) was “What factors influence resilience in students?” Exploratory factor analysis using correlation and principal component analysis was employed to obtain the seven (7) factors of resilience. The seven factors indicated by the results were: (1) Social support and sense of worth, (2) Self-efficacy and high aspirations, (3) Optimistic perspective, (4) Positive self-concept, (5) Toughness, commitment and flexibility, (6) Confidence and internal locus of control, and (7) Achievement orientation. These were the factors that mostly influenced students’ resilience. The results indicated that all seven (7) factors were statistically significant. Thus, their p-values were significant at various stages where $*p < 0.05$, $**p < 0.01$, $***p < 0.001$. Hence, all the p-values were less than 0.05 ($p < 0.05$).

Social support and sense of worth

Social support is a concept that has been characterised as a belief in one's own capabilities, a sense of optimism, and an emphasis on an individual's intrinsic strengths to accomplish future objectives (Mampane, 2010). The findings of the study showed that *social support* and a *sense of worth* significantly influenced the students according to the

factor rotation. The study was consistent with the study of Li and Li (2024). Their research explored how social support affects the resilience of disadvantaged students, with a focus on the contributions of school belonging and emotional experiences. Their findings demonstrated that resilience is notably strengthened by teacher and parental support, along with a strong sense of belonging at school and positive emotional experiences. Also, another research study conducted by Dong et al. (2024) explored the mediating role of perceived social support and resilience in the relationship between coping styles and depression among college students. It found that *perceived social support* and *resilience* significantly reduce depression, suggesting that these factors are crucial for students' psychological well-being. More specifically, their results showed that perceived social support could positively predict psychological resilience, and both factors had a significant negative predictive effect on depression.

Self-efficacy and high aspirations

Self-efficacy refers to an individual's belief in their ability to succeed in specific situations or accomplish tasks. This concept is central to understanding how students approach goals, tasks, and challenges (Eller et al., 2016; Mampane, 2010). This research found that self-efficacy significantly predicts resilience, with students exhibiting greater resilience when they believe in their ability to manage academic challenges. High aspirations, on the other hand, refer to the strong desire and determination to achieve significant academic and personal goals (Graham & Pozuelo, 2023). This result is congruent with other studies (Cassidy, 2015; Etherton et al., 2022; Qamar & Akhter, 2020). For instance, the study conducted by Qamar and Akhter (2020) affirmed academic self-efficacy as a significant predictor of academic resilience. Their study identified a significant positive relationship between students' self-efficacy beliefs and their resilience. It also highlighted various factors that enhance self-efficacy. For example, urban students exhibited greater self-efficacy and resilience than rural students. Additionally, elements such as cultural gender biases, societal norms, access to urban resources, and exposure to challenging environments like war, natural disasters, and socioeconomic hardships were found to influence both resilience and self-efficacy.

Optimistic perspective

According to this study, an optimistic perspective is one of the factors that highly influences resilience. Contextually, this study explains an optimistic perspective as a positive mindset or outlook on life, marked by the belief that favourable outcomes are likely. It is seen as a consistent trait that shapes how people perceive and react to different life situations (Rincón Uribe et al., 2022). This research observed that optimism is associated with a range of positive effects, such as improved mental and physical health, enhanced well-being, and greater achievements across various areas of life. Congruent with the research of Yang and Wang (2022), the results of their research suggested that optimism significantly influences resilience by acting as a predictor of good mental health and a buffer against stress, helping adolescents manage psychological distress and reduce the risk of mental disorders. Optimistic adolescents demonstrate better post-traumatic growth and resilience when facing traumatic events, such as wars or severe stressors. Additionally, according to their research, high levels of optimism are linked to lower engagement in risky behaviours like substance abuse and suicidal ideation, promoting healthier lifestyle choices.

Positive self-concept

It was found that positive self-concept influences resilience in students significantly. Although an optimistic perspective and a positive self-concept are related, they are distinct constructs. An optimistic perspective involves a student expecting positive future outcomes and maintaining hopeful results in academic performance, which influences how individuals behave in class (Rincón Uribe et al., 2022). This mindset is linked to better mental and physical health, higher well-being, and effective coping strategies (Mann et al., 2004; Mutharah et al., 2023). In contrast, a positive self-concept refers to having a favourable view of oneself, encompassing self-esteem, self-worth, and self-image (Darling & Steinberg, 1993). It focuses on self-perception and self-evaluation, contributing to higher self-esteem, better mental health, and improved social and academic outcomes. While both contribute to resilience and well-being, they operate through different psychological mechanisms.

Toughness, commitment and flexibility

The study found that toughness, commitment, and flexibility are crucial constructs that significantly influence resilience in students. Mental toughness, which encompasses resilience, perseverance, and the ability to stay focused under pressure, helps students manage stress and recover from setbacks. Research indicates that mental toughness directly predicts positive adaptation outcomes such as mental well-being and university adjustment (Fullerton et al., 2021; Martin & Marsh, 2008). Commitment, or persistence, involves staying dedicated to goals despite challenges and is a significant predictor of academic resilience. The 5-C model of academic resilience includes commitment as a key component, highlighting its role in helping students overcome academic adversity (Martin & Marsh, 2008; Steinberg et al., 2024). Flexibility, or adaptability, allows students to adjust their strategies and approaches when faced with new challenges, enabling them to navigate changing circumstances effectively. Studies suggest that flexibility, along with toughness, forms part of the multi-faceted nature of resilience, helping students maintain competence in the face of adversity (Arslan, 2016; Nakhostin-Khayyat et al., 2024). Together, these constructs provide students with the tools they need to cope with and thrive despite challenges. By integrating toughness, commitment, and flexibility, students can enhance their resilience, leading to better academic and personal outcomes. This comprehensive approach underscores the importance of developing these traits to foster resilience in educational settings.

Confidence and internal locus of control

The study found that confidence and an internal locus of control significantly influence resilience in students. Confidence, which involves a strong belief in one's abilities, helps students face challenges with a positive mindset and persist through difficulties. Research indicates that students with higher self-confidence are more likely to engage in problem-solving and seek support when needed, which enhances their internal locus of control. The internal locus of control, where students believe they have control over their own successes and failures, is also crucial. Studies show that students with an internal locus of control are more resilient and better at overcoming academic challenges than those with an external locus of control resilience (Arsini & Rusmana, 2023). These students tend to take responsibility for their actions and are proactive in finding solutions to

problems, which further strengthens their resilience.

These findings corroborate with existing literature, which consistently highlights the importance of confidence and an internal locus of control in fostering resilience (Cassidy, 2015; Shanava & Gergauli, 2023). For instance, Cassidy (2015) found that self-confident students are more likely to engage in adaptive coping strategies, which aligns with the current study's findings on the role of confidence in resilience. Similarly, Shanava and Gergauli (2023) demonstrated that an internal locus of control is associated with higher resilience levels, supporting the current study's conclusion that students who believe they control their own outcomes are better equipped to handle academic challenges. This alignment with existing literature underscores the robustness of the study's findings and reinforces the critical role of confidence and an internal locus of control in enhancing student resilience.

Achievement orientation

This study found that achievement orientation significantly influences resilience in students. Achievement orientation, which involves setting and striving for high academic goals, helps students develop a strong sense of purpose and motivation. Research indicates that students with a high achievement orientation are more likely to engage in resilient behaviours, such as persistence and adaptive coping strategies, when faced with challenges (Yang & Wang, 2022). This orientation fosters a proactive approach to learning, encouraging students to seek out resources and support to overcome obstacles, thereby enhancing their resilience (Lin et al., 2017).

These findings align with existing literature, which consistently highlights the positive impact of achievement orientation on resilience. For instance, Yang and Wang (2022) found that students with a strong achievement orientation exhibited higher levels of resilience, enabling them to manage stress better and maintain academic performance under pressure. Similarly, Lin et al. (2024) demonstrated that achievement orientation, combined with social support, significantly enhances students' ability to navigate academic transitions and challenges. This alignment with existing literature underscores the importance of fostering achievement orientation to build resilience in educational settings.

7.2.2 Research Question 2

Research Question 2 (RSQ2) was “What are the factors that indicate high academic performance in students?” Under Focus Group 1, the researcher observed a unique group of students who recorded lower levels of resilience, yet these students had high academic performances (Resilience < 3, Performance > 60). It was found that eight (8) main factors accounted for their high academic performances despite the internal and environmental issues they faced. These factors were (1) Building Personal Qualities, (2) Goal Setting and Planning, (3) Parental Communication and Understanding, (4) Independent Learning, (5) Developing Mental Stamina to Handle Peers, (6) Academics and Self, (7) Personal Responsibility and Decision-Making and (8) Embracing Challenges to enhance Determination.

The researcher observed that LRHAP students understand the importance of developing self-confidence, self-identification, and proactive behaviour to tackle obstacles effectively, hence building personal qualities. This theme underscores the value of personal growth and resilience in overcoming challenges. Building self-confidence helps students face challenges head-on, while assertiveness allows them to engage actively in classroom discussions and seek help when needed, enhancing their learning experiences. This research is congruent with findings from various studies that highlight: (1) Personal development significantly enhances academic performance and (2) emotional intelligence, personality traits, and the meaning of life are crucial predictors of academic success, with factors like sociability and self-confidence playing key roles (Andrade, 2019; Karaman, 2021; Zhao et al., 2021).

Recognising personal strengths and weaknesses empowers students to focus on self-improvement and growth. One participant emphasised the need for self-confidence, while another highlighted the importance of asking questions when something is unclear in class. Self-awareness, abilities, and limitations enable students to navigate challenges effectively. By identifying areas for improvement, students can tailor their learning strategies to address specific hurdles, promoting both personal and academic growth. For example, active listening and proactive engagement in classroom activities improve students’ understanding and retention of course materials. Overcoming shyness and fear

of public speaking develops essential communication skills crucial for academic success and personal development.

Effective time management emerged as a critical factor in enhancing students' academic performance. Research indicates that students who employ efficient time management techniques, such as prioritising tasks and creating structured schedules, tend to achieve higher grades and experience less stress (Calonia et al., 2023). For instance, one study highlights that effective time management reduces stress and increases productivity, leading to better academic outcomes. Another article emphasises the importance of balancing academic responsibilities with extracurricular activities and personal life, noting that students who manage their time well excel academically (Calonia et al., 2023; Sarfaraz et al., 2017). Additionally, Sarfaraz et al. (2017) show that a positive time management disposition is linked to higher learning motivation and academic achievement, as it helps students mediate the effects of learning motivation on their performance. Furthermore, structured time planning allows students to allocate specific time slots for various activities, which significantly improves their academic success.

However, some scholarly works do not agree with the findings of this study. For example, research conducted by Calonia et al. (2023) focused on three aspects of time management: prioritisation, procrastination, and socialisation. Despite finding that students generally manage their time moderately well, the study concludes that these time management factors do not significantly correlate with academic achievement. This suggests that other variables may play a more prominent role in determining students' academic success. The research emphasises the need for further development of time management strategies to enhance students' efficiency and productivity.

The third factor indicates that LRHAP students overcome the challenges of peer pressure to perform better academically. Navigating peer influence poses a significant challenge for students. Handling peer pressure involves learning to assertively say no to negative influences, which empowers students to stay focused on their goals and maintain academic integrity. By resisting negative peer influences, students develop decision-making skills and uphold their academic values. This ability to decline detrimental influences helps them stay committed to their educational goals and personal principles.

This finding is congruent with the study of Stephen et al. (2021), which highlighted that peer groups significantly influenced students, often causing them to conform to group norms, which could have either positive or negative effects on their academic performance. It found that understanding and managing peer influence was crucial for enhancing students' academic success and overall well-being. The study recommended implementing intervention programmes to help students resist negative peer pressure and stressed the important role of teachers and parents in guiding adolescents.

Again, it was observed that effective communication with parents plays a vital role in creating a supportive home environment conducive to academic success. Students emphasise parental communication and understanding as they express the importance of articulating their needs and maintaining respectful communication with their parents. Clear and respectful communication about educational needs fosters a supportive home environment, enabling students to gain parental support and contribute to their academic success. Also, maintaining a positive attitude towards parental guidance and responsibilities enhances familial support and access to resources. Demonstrating respectful behaviour and gratitude helps create a conducive environment for academic achievement. This study is congruent with extant research (Li et al., 2022; Weintraub & Sax, 2018; Zhang, 2020). For instance, in the research of Li et al., the study explored how parent-child relationships impact the academic performance of Chinese college students, using Social Cognitive Theory and Broaden-and-Build Theory. It finds that positive parent-child relationships directly enhance academic performance and do so indirectly through gratitude and psychological capital.

Further, this research found that discipline, goal setting and planning are highlighted as crucial elements for academic success, even without challenges. Less resilience and high academic performance students recognised the importance of maintaining discipline in both behaviour and studies to reach their academic objectives. This emphasises the role of self-control and concentration in effectively navigating the academic environment. Demonstrating discipline in behaviour and studies reflects a student's dedication to their goals and responsibilities. One participant explained that disciplined people tend to achieve higher success. They elaborated that without challenges, they might not be

disciplined enough to succeed. Therefore, discipline is essential. This study is congruent with extant literature (Godden, 2018; Yadav, 2022).

In addition to discipline, effective planning and goal setting are identified as fundamental to academic achievement. Students stress the need to set clear goals and create structured plans to accomplish them. Having a clear vision of academic goals acts as a motivating force in daily activities, helping students remain focused and determined. One participant advised keeping a goal in mind and working towards it. Another participant highlighted the importance of organising tasks through to-do lists, which helps prioritise and efficiently allocate time and resources to various academic responsibilities. Furthermore, students underscore the significant impact of personal decisions on academic success, regardless of challenges. They emphasise the importance of making wise choices about friendships, career paths, and personal habits. This theme highlights the proactive role students play in shaping their academic journey through thoughtful decision-making. In the absence of challenges, students still stress the crucial role of personal decisions in determining academic outcomes. The ability to make informed choices about friendships, career paths, and lifestyle habits greatly influences academic performance. One participant noted that it depends on the kind of person you are. They further explained that life is all about decisions, and no one else will make them for you. They can choose to have good friends or bad friends, and similarly, they can decide to pursue a good career or follow bad influences.

Lastly, it was found that LRHAP students take the initiative in self-directed learning to boost their academic independence and foster their intellectual development. Engaging in research activities sharpens critical thinking and broadens students' knowledge beyond the classroom. One participant advised students to become researchers and actively engage in research. He stressed that developing independent reading habits helps students deepen their understanding of subjects and complement classroom learning (Abid et al., 2023; Mcbreen & Savage, 2020). Again, another participant emphasised the importance of learning to read independently when the teacher is not present. Regularly reviewing and revising course materials strengthens learning and improves retention of key concepts. Actively seeking additional knowledge and exploring advanced topics

shows a commitment to academic excellence. Engaging with teachers and peers to gain more knowledge supports continuous learning and intellectual growth. By focusing on these self-directed learning strategies, students can enhance their academic independence and promote continuous intellectual growth. Participants recognise that challenges can enhance determination and resilience. Overcoming obstacles is seen as an opportunity for personal growth and development. While challenges may pose difficulties, they also help build character and fortitude, contributing to academic success. One participant noted that challenges sometimes make individuals tougher and more determined. On the other hand, the absence of challenges can provide a conducive environment for students to focus solely on their academic pursuits. Without personal and external distractions, students may find it easier to concentrate on their studies, potentially leading to better academic performance. Another participant mentioned that having no challenges allows students to have all the time they need to learn and excel in their studies.

7.2.3 Research Question 3

Research Question 3 (RSQ3) was “What factors indicate low academic performance in students?” This research question is addressed adequately under Focus Group 3, where the findings of highly resilient students with low academic performance (resilience > 3.5, performance < 50) were analysed, and the actors that accounted for their low academic performance were detailed.

The first finding of the research indicates that the influence of home responsibilities and family structure greatly affects students’ academic performance. Many students juggle home responsibilities with their academic commitments, which can significantly impact their ability to focus on schoolwork. Balancing chores, caregiving duties and other household tasks often leads to stress and fatigue, reducing study time, causing missed homework, and decreasing participation in school activities. Extensive house chores, such as cleaning, cooking, and caring for younger siblings or elderly family members, demand considerable time and energy, leaving students exhausted and with little time for academic activities. Additionally, students who assist in family businesses face unique challenges, as these responsibilities consume a significant portion of their time, affecting

their academic performance. Long hours of work before or after school limit their time for homework, studying, and rest, resulting in decreased classroom participation, lower grades, and heightened stress levels. The dual role of being both students and contributors to their family's livelihood can lead to fatigue, decreased motivation, and difficulty keeping up with school assignments and extracurricular activities (Abid et al., 2023). The demands of the family business often encroach on time that could be spent studying or resting, creating a constant struggle to manage both sets of responsibilities. Consequently, these students may find it challenging to fully engage in their education, leading to a cycle of stress and academic underperformance that can be difficult to break without adequate support from both their families and schools.

Students from single-parent or divorced families often face additional challenges, such as a lack of attention to their academic needs and disturbances in their study environment. The absence of one parent or ongoing family conflicts can lead to emotional distress and instability, affecting students' concentration, motivation, and overall academic performance. Negligence also plays a significant role, as students may not receive the necessary guidance and support with their homework, school projects, or preparation for examinations. This lack of academic support at home can lead to a decline in academic achievement and a sense of isolation. One participant mentioned that staying with their mother, who enjoys watching television at a high volume, disturbs their studies. Another shared that misunderstandings between their divorced parents prevent discussions and attention to their welfare. A third participant added that only their mother takes full care of them. Despite these challenges, some students receive adequate support and care, which helps them maintain their academic performance.

The finding is consistent with the study of West et al. (2017), who found that many single mothers expressed a desire and a need for stronger relationship networks with parents, friends and even other families to enhance support for their children's benefit. The constant struggle to balance home and school responsibilities creates a cycle of stress and academic underperformance. This finding is also congruent with the scholarly works of David Godden (2014, 2018). For example, David Godden (2014) found that students with significant home responsibilities, such as household chores and care-giving duties,

often experience reduced study time, leading to lower academic performance. Hence, the role of extended family members, such as grandparents, aunts, uncles, and siblings, can be crucial in providing stability and support. This support insulates students from the potential negative impacts of family disruption, ensuring their emotional and academic needs are met. One participant noted that even though their parents are divorced, the welfare of their siblings and themselves is well catered for. Another added that they stay with their brother and his wife, who cater for their academic needs.

Secondly, it was found that navigating school challenges such as bullying, class size, and teacher attitudes had immense repercussions on students' academic performance and is congruent with extant literature (Koçak et al., 2021; Sabramani et al., 2021). The school environment presents numerous challenges that can negatively affect students' academic performance and overall well-being. Noise and distractions from classmates, such as constant chatter and movement, make it difficult for students to concentrate on lessons and complete assignments, leading to increased stress and frustration. Bullying and teasing by peers further discourage students from participating in class and affect their self-esteem, causing emotional distress and a sense of isolation (Sabramani et al., 2021). Specific incidents of bullying, including physical aggression and threats, create a hostile learning environment, impacting students' emotional well-being and academic performance. Despite these challenges, some students remain resilient, focusing on their studies and reporting bullying incidents to authorities.

Additionally, large class sizes contribute to a noisy and distracting environment, making it hard for students to gain the attention they need to engage fully with the material being taught. This results in frequent disruptions and diminishes overall learning experience. The finding is congruent with the study of Wang and Calvano (2022) where they emphasised the significant impact of student engagement and teacher interaction on both student success and satisfaction, regardless of class size. However, their results also revealed that students tend to perceive reduced teacher interaction and satisfaction in larger classes. Teachers also play a critical role in shaping students' academic experiences, but some students struggle to understand the material due to certain teaching methods.

Negative interactions, such as verbal abuse from teachers, create a hostile learning environment, demotivating students and affecting their academic confidence and performance. These combined factors create a less conducive atmosphere for learning, impacting students' ability to thrive academically and personally. The findings of this study are congruent with that of extant literature (Jamal et al., 2013; Tapia-Fonllem et al., 2020). In the study of Jamal et al. (2013), for example, they found that aggressive behaviour and substance use often provide status and bonding opportunities in schools where students feel marginalised or unsafe. These health-risk behaviours are concentrated in unsupervised areas like hallways and staircases. Positive teacher-student relationships are crucial for student well-being, but certain school policies can hinder these relationships. Additionally, student unhappiness at school can lead to escape behaviours such as substance use or unauthorised absences.

Lastly, financial difficulties pose a significant obstacle to academic success for many students. Limited funds for essential school needs can impede their ability to study effectively. The absence of necessary supplies, such as textbooks, notebooks, and other learning materials, can prevent students from fully engaging with the curriculum. These challenges often lead to increased stress and anxiety, further diminishing students' ability to concentrate and perform well in their studies. One participant, HL5, mentioned that the small amount allocated for school feeding fees negatively impacts their studies. Another participant, HL1, expressed that the money provided for school is insufficient, especially when it comes to purchasing exercise books and other school-related items. Additionally, participant HL9 shared that the relatives they live with do not provide enough financial support, which affects their academics, sometimes necessitating calls to their mother for additional funds. The findings of the study are in agreement with extant literature (Britt et al., 2016; Moore et al., 2021). The study of Moore et al. (2021), through qualitative research involving focus groups, identified two main themes: the academic consequences of financial stress, such as difficulty affording textbooks and prioritising work over studies, and the social consequences, including feelings of isolation and embarrassment due to financial disparities with wealthier peers. Again, Britt et al. (2016) examined the impact of financial stress on students, highlighting how financial and life stressors, subjective

financial knowledge, and perceptions influenced stress levels. It found that while financial stress did not directly affect academic achievement, financial stressors and resources did. The study suggested that increasing financial resources and knowledge could reduce stress and improve academic outcomes.

7.2.4 Research Question 4

Research Question 4 was “What factors influence less resilience in students.” This research question was addressed under Focus Group 1, and focused on the challenges of less resilient students (Resilience < 3, Performance > 60).

It was realised that educational challenges of the school’s environment and teacher attitudes are factors that greatly influence the students’ resilience. The school environment plays a crucial role in shaping students’ academic performance, with factors like competition, noise levels, and interpersonal conflicts being particularly influential. A large student population can reduce the sense of competition, affecting students’ motivation to excel. Additionally, excessive noise and distractions in the classroom make it difficult for students to concentrate and learn effectively, with participants mentioning that there is much noise and many distractions (Wang & Calvano, 2022). Moreover, a high student population can lead to more conflicts and friction among students, creating a disruptive and hostile learning environment, as noted by a participant who mentioned that the large number of students brings a lot of friction and fighting. However, out of the extant literature reviewed, there is no strong evidence that there is a strong relationship between the high student population and conflicts, as observed in this research (Shao et al., 2024; Yu et al., 2023).

Teachers’ attitudes and behaviours also significantly impact students’ academic performance. Inadequate attention, negative interactions, and discriminatory behaviour from teachers can pose serious challenges (Wang & Calvano, 2022). When teachers do not give enough attention to students, it can lead to feelings of neglect and hinder academic progress, with one participant mentioning that teachers do not have time for them. Negative interactions, such as insults or unfriendly behaviour, undermine students’ self-esteem and confidence, creating a negative learning atmosphere, as shared by participants who noted that some teachers express dislike towards students and often

insult them. Discriminatory behaviour from teachers can make students feel excluded and marginalised, which goes against the principles of equity and fairness in education.

One participant noted that teachers tend to discriminate. Additionally, students face significant challenges in obtaining the necessary resources and conducive environments for effective learning. The lack of textbooks and gadgets limits their ability to conduct research and learn independently, and a noisy classroom environment further hampers concentration and overall academic performance. Participants expressed difficulties with independent learning, indicating a need for support beyond classroom instruction, with one participant mentioning having educational problems, particularly with learning alone.

The absence of essential textbooks is a major barrier to accessing and engaging with course materials effectively, as highlighted by a participant who noted the issue of not having some of the textbooks. Access to electronic devices is also crucial for conducting research and furthering understanding of topics outside school hours, with one participant pointing out the lack of electrical gadgets such as phones and laptops to do more research after school.

Lastly, excessive noise in the classroom was identified as a significant hindrance to concentration and learning, impacting academic performance, as mentioned by a participant who noted that sometimes there is much noise in the class. These findings are in alignment with the works of Maxwell et al. (2017). Their study investigated the impact of both student and staff perceptions of the school climate on student achievement, using a multilevel model with data from 17 secondary schools. It found that students' perceptions of school climate significantly influenced their writing and numeracy achievement, mediated by their psychological identification with the school. Staff perceptions of school climate also affected student achievement in numeracy, writing, and reading, but the staff's school identification did not play a significant role. Also, in a recent study conducted by Pervaiz and Lashari (2024), it was found that even teachers in noisy learning environments were particularly worried about how the noise in their school's surroundings may have impacted students' learning abilities. Hence, there is a need for schools to have a positive learning climate to enhance academic outcomes.

Secondly, this study finds environmental and social influences are factors that affect students' resilience. Social challenges such as peer influence, child abuse, and negative family dynamics create significant barriers to students' academic success and well-being. Negative peer pressure can lead students to engage in activities that distract them from their studies, as noted by participants LH1 and LH2. Child abuse further complicates these challenges, affecting students' mental and emotional health and their ability to focus in school, as highlighted by participant LH4. The fear and discomfort caused by child abuse and bullying make it difficult for students to concentrate in class, as explained by participant LH1, who mentioned that being afraid of the bully makes them uncomfortable and unable to be themselves. Bullying also lowers students' self-confidence, making them less likely to participate in class. Bullying creates a harmful school environment filled with fear and reduced self-confidence, which negatively impacts students' academic engagement and performance (Sabramani et al., 2021).

The mass media significantly influences students, often serving as a distraction and exposing them to negative influences that detract from their academic pursuits. Students report that mass media negatively affects their academic focus and behaviour, with participant LH1 mentioning that mass media has a considerable influence on their behaviour. Exposure to harmful content and distractions from media platforms can divert their attention from studies, leading to decreased academic engagement.

This study concurs with Schwerter et al. (2024) who explored the impact of social interactions on elementary school students' academic achievement and well-being. The study employed machine learning methods to ensure robust results, revealing that while teacher support consistently enhanced well-being, its impact on academic achievement was less clear. The findings emphasised the importance of fostering supportive social environments in schools to promote students' overall success and happiness. Additionally, negative family dynamics, like excessive demands from family members, can disrupt students' study routines, with participant LH1 sharing an example of their grandmother frequently sending them on errands whenever they try to study.

Thirdly, it was found that navigating personal challenges and the impact of sickness were factors that affected LRHAP students. Students face various personal challenges that

significantly affect their academic performance and overall well-being, including shyness, social anxiety, time management issues, and a lack of emotional support. Many students struggle with shyness and social anxiety, preventing them from actively participating in class discussions and seeking help when needed, which hinders their learning progress and academic success.

Additionally, students often have difficulty managing their time effectively, making it hard to balance academic responsibilities with other commitments. Poor time management can lead to procrastination and reduced productivity, affecting their ability to meet deadlines and achieve academic goals. Another participant noted the challenge of finding time to learn. Furthermore, the lack of emotional support leaves students feeling isolated and without anyone to turn to for guidance or encouragement, negatively impacting their mental and emotional well-being and further hindering their academic performance. One participant shared that there is no one to talk to when they have a problem because others might tease them later.

Illness also significantly disrupts students' academic journeys by affecting their ability to access learning materials and maintain focus. Sickness often leads to absenteeism, causing students to miss important lessons and learning materials. Physical illness not only affects students' physical well-being but also impairs their mental capacity to concentrate and learn effectively. The discomfort and lack of concentration associated with sickness directly hinder academic performance. Another participant shared that when you are sick, you do not have a sound mind to learn, so sickness will affect academic performance directly. There are several research studies with consensus data that affirm that illness has a direct and significant impact on students' performance. For instance, in a research conducted by Taras and Potts-Datema (2005), it was affirmed that data consistently shows that children with chronic illnesses, including diabetes, metabolic control fluctuations, sickle cell disease, epilepsy, haemophilia, HIV, phenylketonuria, and congenital heart conditions, are more likely to face academic challenges. The extent of this disadvantage is linked to the effectiveness of management and support systems provided by social institutions for these students

7.2.5 Research Question 5

Research Question 5 was “What factors influence resilience and high academic performance in students?” This research question was addressed under Focus Group 2 and focused on the strategies used to overcome challenges. Motivation is a crucial factor in academic success, driven by both internal and external elements. Participants emphasised that staying motivated helps them remain engaged with their studies, overcome challenges, and persist in their efforts. This consistent motivation enables them to complete assignments on time, prepare well for examinations, and actively participate in class. A motivated mindset also helps students set and achieve academic goals, fostering a sense of accomplishment and a positive attitude towards learning (Smith et al., 2023). Participants highlighted the significant role of external influences in their academic efforts. They mentioned that parental encouragement and the desire to make their families proud motivate them to stay focused and dedicated. This sense of responsibility and accountability drives students to meet their loved ones’ expectations. Additionally, participants showed intrinsic motivation by engaging with topics that interest them. This internal drive fuels their curiosity and passion for learning, leading to a deeper understanding of the material. When students are intrinsically motivated, they have a genuine desire to explore and master concepts rather than just seeking external rewards.

This self-driven approach fosters a lifelong love of learning and empowers students to take ownership of their academic journey, resulting in greater satisfaction and fulfilment. Maintaining self-motivation, a positive mindset, and fearlessness are key themes for academic success. Self-motivation involves the internal drive and determination to overcome challenges and pursue academic goals (Wu et al., 2020). It includes believing in one’s ability to succeed and staying focused on desired outcomes despite obstacles. Cultivating a positive mindset means adopting an optimistic outlook and viewing challenges as opportunities for growth. Fearlessness involves facing challenges with courage and resilience, without giving in to fear or self-doubt (Parker et al., 2018). Together, these attributes help students navigate their academic journey with confidence and resilience, enhancing their chances of success. Participants noted that adopting a positive mindset, self-motivation, and fearlessness equips them to overcome academic

challenges. They stressed the importance of self-belief, goal focus, and approaching obstacles with courage. One participant remarked, *“Believing in myself and staying positive helps me tackle any challenge.”* Cultivating a positive outlook allows students to see challenges as growth opportunities, enabling them to navigate the academic landscape with confidence and determination. Participants also highlighted that a can-do spirit helps them tackle challenges with resilience and determination. By focusing on possibilities rather than limitations, they can confront obstacles and find innovative solutions. This proactive approach to problem-solving empowers them to navigate difficulties with confidence and optimism, ultimately contributing to their academic success and personal growth.

Effective time management and prioritisation of tasks are essential for overcoming challenges. Participants highlighted the significance of managing their time efficiently and prioritising tasks to ensure they dedicate enough effort to their academic work. By organising their schedules and setting aside specific times for studying, completing assignments, and other activities, students can enhance their productivity and reduce procrastination. Setting clear priorities helps them concentrate on the most important tasks that contribute significantly to their academic goals, allowing them to use their time more effectively and achieve better results. Participants also stressed the importance of making the most of the limited time available to them. They pointed out the need to maximise productivity during study periods by minimising distractions and staying focused on academic tasks. This approach not only helps them make the most of their study sessions but also keeps them organised and aligned with their academic objectives.

The participants deemed it crucial to separate domestic chores from study time. They recommended allocating specific times for household tasks and reserving uninterrupted periods solely for studying. By setting boundaries and following a structured schedule, participants believed they could optimise their time and maintain a balance between academic responsibilities and other commitments. One participant mentioned that they needed to be quick in completing their chores to make more time for studying.

It was also found that sustained resilience and engagement enhance student performance. Promoting resilience and persistence emerged as a key theme from the

participants' responses (Wu et al., 2024). They emphasised the importance of maintaining a positive attitude, staying determined, and continuously striving towards their goals despite obstacles. These traits help students develop a resilient mindset, allowing them to see challenges as opportunities for growth rather than insurmountable barriers. By staying positive and persevering through adversity, students can strengthen their resilience, equipping them with the tools needed to overcome future challenges. Shyness and fear of judgment are common barriers in students' academic journeys. Participants shared strategies for overcoming these obstacles, highlighting the importance of building confidence and resilience. One participant mentioned that by challenging themselves to speak up in class, ask questions, and actively participate in discussions, they gradually overcame their shyness and fear of judgment.

Consistent engagement with coursework and maintaining focus are crucial for academic success. This level of engagement helps students understand complex concepts more thoroughly and retain information more effectively. Adopting a proactive approach to learning by seeking additional resources can further enhance understanding and deepen knowledge. Participants noted that active participation in learning and personal motivation or external influences are key strategies they use to manage their academics daily. One participant stated that regularly attending classes, actively engaging in discussions, and reviewing teaching materials help them manage their academics effectively. Another added that taking detailed notes during lectures and reviewing them regularly reinforces key concepts and ensures continuous engagement with the material. Active participation also includes collaborating with peers in study groups, which not only enhances learning through diverse perspectives but also fosters a supportive academic community. Reviewing coursework and assignments promptly allows students to identify areas of difficulty early and seek help if needed, ensuring they stay on top of their studies and maintain consistent academic performance (Kaye & Kim, 2023; Nieberding & Heckler, 2021). Participants also emphasised the importance of maintaining focus and limiting distractions for effective studying. One participant noted that when they find a subject interesting and engaging, it is easier to maintain focus, which enhances their overall learning experience. In class, participants mentioned minimising side conversations and

maintaining full concentration on their teachers to avoid missing important information. This helps them stay engaged with the material, better understand complex concepts, and retain information more effectively, ultimately leading to improved academic performance and a deeper comprehension of the subject matter.

7.2.6 Research Question 6

Research Question 6 (RSQ6) was “How do students and teachers explain resilience?”

7.2.6.1 Students’ Response

In exploring how students explain resilience, two predominant themes emerge: (1) the perception of success and (2) toughness in facing challenges. This segment will delve into these themes, revealing how students perceive resilience through the achievement of personal goals, the realisation of dreams, and the experience of freedom and fulfilment. It will also examine the perceived toughness required to navigate academic challenges, focusing on learning from mistakes, maintaining focus despite difficulties, and using criticism constructively. By unpacking these themes and their sub-pointers, we gain a comprehensive understanding of the multifaceted nature of resilience as viewed by students.

It was observed that success can take many forms, such as academic achievements, personal growth, career progress, and the realisation of goals and dreams (Ashton-Hay & Doncaster, 2021). By understanding how students define success, educators and policymakers can better tailor educational experiences and support systems to meet their needs and aspirations. Many students link success to achieving their personal goals, whether academic, career-related, or personal development. They see it as fulfilling their ambitions and aspirations, which brings a sense of personal accomplishment. Another view of success involves realising one’s dreams, emphasising the importance of dreaming big and working towards those dreams. For some, success means having the freedom and financial independence to live life on their own terms, beyond traditional academic and career achievements, encompassing overall well-being and personal satisfaction. Success is also seen as a continuous journey of growth, learning, and self-improvement, rather than a single achievement. This perspective values progress and development, viewing setbacks as opportunities for growth. Lastly, success is often

measured by its impact on others, with students believing that true fulfilment comes from positively influencing the lives of those around them. This communal view highlights the importance of empathy, compassion, and social responsibility.

Secondly, it was realised that developing the ‘thick-skin’ or toughness to address academic and personal challenges is essential for students to overcome, enabling them to maintain focus and determination despite adversity (Abubakar et al., 2021). Students highlighted the importance of learning from mistakes, viewing errors as opportunities for growth, and staying focused on their goals despite distractions. They use criticism constructively, embracing feedback to improve and develop a growth mindset. The desire to prove doubters’ wrong serves as a powerful motivator, driving students to exceed expectations. Facing and enduring challenges builds character and resilience, with students recognising that obstacles are temporary and do not define their potential or capabilities. This internal strength and self-belief help them cope with difficulties, fostering a culture of continuous improvement and lifelong learning.

7.2.6.2 Teachers’ Response

In the exploration of students’ resilience, it was observed that teachers provide a critical perspective, highlighting three key dimensions: (1) students overcoming educational challenges through adaptation, demonstrating flexibility and resourcefulness in the face of obstacles, (2) intrinsic motivation and personal traits are identified as foundational elements in building resilience that empower students to persist despite difficulties, and (3) the role of external support and role models. The section below explains the findings of the study and how the findings align with scholarly works.

Firstly, teachers view resilience as the ability to adapt despite challenging conditions, emphasising perseverance and determination (Britt et al., 2016). They highlight resilience as a continuous effort to achieve excellence, even when faced with obstacles. However, challenges such as a lack of basic educational supplies and being an orphan can significantly impact resilience, leading to feelings of marginalisation and isolation. Financial support is crucial, as financial difficulties can hinder a student’s ability to remain resilient by exacerbating stress and limiting access to educational opportunities. Overall,

resilience involves adaptability and perseverance, with financial stability playing a key role in supporting students through adversity.

Again, it was found that self-determination, goal-setting, and inspirational support are key factors in building resilience, as individuals draw strength from their aspirations and future goals (Toste et al., 2021). Inspiration from others, such as witnessing their achievements and perseverance, boosts resilience by offering hope and direction. Teachers play a crucial role by sharing personal stories of overcoming adversity, which inspire and encourage students, especially those in challenging living conditions. This helps students to set goals which enables students to have a positive outlook and focus on objectives despite obstacles, helping individuals view challenges as manageable. A strong sense of self-determination empowers individuals to pursue goals despite difficulties, while emotional regulation is vital for managing stress and maintaining psychological well-being. Positive personal traits like humility and respectfulness foster good relationships, adaptability, and effective communication, all of which contribute to resilience.

Lastly, it was found that teachers perceive external support systems, such as encouragement from peers and mentors, are crucial in building resilience by providing reassurance and motivation. Conversely, a lack of support or sibling discrimination can erode resilience by adding emotional stress. Role models within the community who have overcome adversity inspire students to persist through their own challenges. Teachers also play a significant role by demonstrating perseverance and empathy, which fosters resilience. Intelligence contributes to resilience by earning peer respect and support, creating a sense of belonging. Peer support networks offer emotional validation, encouragement, and practical help, enhancing resilience. In summary, encouragement from peers, family, and mentors, along with positive personal traits and role models, is essential in fostering resilience by providing the motivation and confidence needed to overcome challenges.

7.2.7 Research Question 7

Research Question 7 was “How do students and teachers explain academic performance?” In exploring the multifaceted nature of academic performance, answering this question delves into the perspectives of both students and teachers. Students

articulate their understanding of academic performance through three key lenses: (1) academic engagement and diligence, which highlight the importance of effort and participation; (2) positive personal qualities and values that underscore the role of individual characteristics in learning, and (3) the significance of academic support and resources that facilitate their educational journey. Conversely, teachers approach academic performance through distinct dimensions, focusing on assessment-based success and mastery of knowledge, the comprehension and practical application of learned concepts, and the integration of behavioural change and personal growth alongside academic achievement. Together, these perspectives provide a comprehensive understanding of what constitutes academic performance in the educational landscape.

7.2.7.1 Students' Response

To enhance academic performance and overall learning, students must adopt key traits such as academic engagement and diligence. Academic engagement involves active participation in the learning process, including regular class attendance, detailed notetaking, and asking questions to clarify doubts (Bugbee et al., 2019). Diligence requires consistent effort in completing assignments on time, systematic exam preparation, and striving for excellence in all academic endeavours (Yao et al., 2019). By adhering to school rules and maintaining discipline, students create a structured and respectful learning environment that minimises distractions and fosters a positive atmosphere conducive to academic focus and personal growth. This adherence also instills responsibility and accountability, essential for academic success and future professional environments. Commitment to studies, involving dedicated time for assignments and thorough exam preparation, encourages a deeper understanding of subjects and develops a strong work ethic. Consistent effort leads to improved academic performance and perseverance, equipping students with skills and mindsets needed for future challenges. Maintaining focus on academic goals helps students prioritise tasks, manage time effectively, and stay motivated. Setting clear, achievable goals provides direction and purpose, guiding students towards success and encouraging them to seek growth opportunities, ultimately leading to a fulfilling learning experience.

Secondly, it was found that adopting positive personal qualities and values is crucial for students' academic and personal growth, as it fosters a strong character and a positive school community (Duckworth & Yeager, 2015). Participants emphasised that active listening and respect towards peers, teachers, and diverse perspectives enhance the learning experience by promoting meaningful communication and collaboration.

Thirdly, altruism and supportiveness, such as offering assistance and encouragement, contribute to a supportive learning environment, strengthening the sense of community. For instance, a study conducted by Duckworth and Yeager (2016), underscores the significance of assessing personal qualities like self-control, grit, and a growth mindset in education. It also points out the difficulties in accurately measuring these noncognitive traits, as existing approaches—such as self-report and teacher-report questionnaires, along with performance tasks with inherent limitations. These qualities collectively help students navigate challenges with determination, leading to greater academic success and personal development.

7.2.7.2 Teachers' Response

Academic performance is perceived as the outcome of assessments and ratings, reflecting a student's level of success. This system quantifies a student's understanding and mastery of the subject matter through various evaluative measures, such as tests, assignments, and projects (Toste et al., 2021). These ratings influence a student's academic trajectory and future opportunities in higher education and career prospects. Beyond exams, academic performance encompasses the student's ability to comprehend and apply the material taught in class, reflecting a deeper grasp of the subject matter (Darling-hammond et al., 2020). Effective academic performance is demonstrated when students can recall and utilise what they have learned, not only within the classroom but also in extracurricular activities. Moreover, academic performance includes personal growth and behavioural changes, highlighting the importance of virtues like integrity and teamwork. High grades alone are insufficient without interpersonal skills, as effective collaboration is crucial for stable employment. Thus, a holistic view of academic performance integrates cognitive achievements with emotional and behavioural development, emphasising the interconnectedness of intellectual attainment and

personal growth. Evaluations and grades are not the sole indicators of academic success; personal growth and behavioural improvements are equally important. Educators recognise that true academic performance encompasses not just measurable achievements but also the development of critical life skills and positive attitudes.

7.3 Summary of Findings

The study on the relationship between resilience and academic performance of adolescents underscores the importance of resilience in enhancing academic outcomes. It reveals that fostering resilience through targeted support systems can significantly improve students' academic performance.

The study highlights the need for a more holistic approach to education that prioritises the development of resilience and emotional well-being alongside academic achievement.

Key areas identified for intervention include developing personal qualities, goal setting, promoting parental communication, encouraging independent learning, building mental stamina, managing time, balancing academics and well-being, fostering personal responsibility, and embracing challenges. By addressing these areas, stakeholders can create a supportive educational environment that nurtures both academic excellence and personal growth among adolescents.

7.4 Limitations of The Study

The study was undertaken at a period when a new programme had been initiated, and the pioneers were yet to write their first examination known as BECE (Basic Education Certificate Examination). The pioneers of the programme were then in form two. The form threes (final year) at the time of data collection (2023) were the last batch of the old programme. The final year students were busy so as stated only form twos (the premiere batch of the new programme) were selected for the focus group discussion. The academic performance score of this new programme involved more practical exposure and research. This might influence the academic scores depending on students' ability.

During the focus group discussions, some students opted to express themselves in Twi, the most widely spoken language in Ghana to facilitate their ability to communicate more effectively. In translating this information into English, I might have missed or

misinterpreted some nuances of their responses, leading to potential omissions or inaccuracies in the captured data. It was observed that students in public schools, who often face a variety of challenging circumstances, may not exhibit the same level of vocal expression and outspokenness as their peers in private schools. Consequently, when a student shares an experience that resonates with others, there is a tendency for some students to refrain from affirming their similar experiences. This reluctance can be attributed to the aforementioned challenges, which may inhibit open communication during the focus group discussion.

In comprehensively exploring the relationship between resilience and academic performance, I was unable to address the gender-specific factors that influence this nexus among public Junior High School students in Ghana. Inferences can be made from these research findings to individuals with analogous characteristics and similar settings.

7.5 Recommendations

This section outlines recommendations based on research findings.

7.5.1 Recommendations for Heads of Institutions

Educational institutions should focus on improving teacher training by providing ongoing professional development centred on resilience-building strategies and techniques to support high academic performance. It is important to reinforce teachers' capacity in adolescent development, build a sense of belonging among students and staff, implement student projects that foster autonomy, and strengthen parent-teacher partnerships to discuss student progress. It is necessary to foster a supportive culture that is based on respect and a sense of belonging.

7.5.2 Recommendations for Policymakers

Policymakers should prioritise enhancing funding for educational programmes that foster resilience and high academic performance, especially in underprivileged areas. Increased financial support can help implement comprehensive support systems. Programmes should be developed to build self-confidence and strengthen self-efficacy and assertive skills in schools. It is vital to employ counsellors and psychologists to

provide both individual and group therapy, academic counselling, build social-emotional skills, and organise career development programmes to address emotional and academic needs. Additionally, promoting inclusive education practices such as sporting activities and creative skills is crucial. It is also important to provide resources such as laboratory facilities, specialised demonstration rooms, and basic facilities – textbooks, projectors and computers to enhance learning. Policies should be developed to ensure that all students, regardless of their background or abilities, have equal opportunities to receive education. This includes creating an environment where diversity is celebrated, and all students feel valued and supported.

7.5.3 Recommendations for Parents

Parental involvement is vital in the education of children. Institutions should develop programmes such as open days and Parent Teacher's Association meetings that actively engage parents in their children's education. There is a need to foster strong communication between parents and schools. This will equip parents with the information necessary to support their children's learning. It is important for parents to create flexible schedules for house chores and other responsibilities to improve academic performance. Parents must also create a conducive study environment and establish a routine to facilitate learning. This collaborative approach can significantly enhance students' academic outcomes.

7.5.4 Recommendations for Teachers

Teachers should encourage positive interactions through mentorship programmes and feedback sessions to strengthen the teacher-student relationship. It is also necessary to foster a positive classroom environment by using supporting language to encourage positive interactions among students and create a safe and supportive classroom environment by demonstrating empathy and organising team-building activities. Additionally, teachers should provide individual support based on the students' needs and assist students to view challenges as growth opportunities

7.5.5 Recommendations for Future Study

Future research should include longitudinal studies to track the development of resilience and its impact on academic performance over time. Such studies can provide valuable insights into how resilience evolves and influences students' educational journeys. Additionally, it is important to investigate the factors influencing resilience and academic performance in diverse populations, including different cultural, socioeconomic, and geographic contexts. Understanding these variations can help tailor interventions to meet the specific needs of various groups. Lastly, evaluating the effectiveness of different interventions designed to enhance resilience and academic performance is important. Identifying best practices and areas for improvement can guide the development of more effective strategies to support students' success.

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ANNEXURES

ANNEXURE A: LETTER OF APPROVAL FROM THE GHANA EDUCATION SERVICE

GHANA EDUCATION SERVICE

In case of reply the number and date of this letter should be quoted

Our ref: GES/GAR/ IU/43/22
Your Ref:



REGIONAL EDUCATION OFFICE
P.O. Box M 148
ACCRA
31ST OCTOBER, 2022

REPUBLIC OF GHANA

**THE MUNICIPAL DIRECTOR
MUNICIPAL EDUCATION OFFICE
AYAWASO WEST**

RE: REQUEST FOR THE PERMISSION TO CONDUCT A RESEARCH IN PUBLIC SCHOOLS WITHIN AYAWASO WEST MUNICIPAL

I acknowledge the receipt of your letter with Ref No. GES/AWMO/DOE/22/01 dated 31st January, 2022 on the above subject.

I write to inform you that permission has been granted to Esther Twum-Barima, a PHD student from the University of Pretoria, South Africa to conduct her research in your Municipal Education Directorate to enable her complete her course work.

Please ensure that all the COVID-19 protocols are observed during her research in the schools chosen in your Municipal Directorate.

Thank you



MR. STEPHEN ABAMFOH
DIRECTOR OF EDUCATION
ACCRA METROPOLIS
FOR REGIONAL DIRECTOR
GREATER ACCRA REGION

cc.
✓ Esther Twum-Barima, University of Pretoria, Dep. Of Educ. Psycho, Pretoria 0002, South Africa

ANNEXURE B: CLIENT ASSENT FOR PARTICIPATING IN A RESEARCH STUDY



Faculty of Education

Client Assent for Participating in a Research Study

Title of Research: The relationship between resilience and academic performance of Ghanaian Public Junior High School students

To be read to children under the age of 18 years

Why Am I Here?

As part of the requirement for a PhD in Learning support, guidance, and counselling at the University of Pretoria, I, (Esther Twum-Barimah) the researcher is required to undertake a research project in a field of interest. In this project, participating students will be asked to complete a questionnaire, and join focus group interviews. This document (Client assent) is to provide the needed information about the research before we request your consideration to be part of the research.

This study will help you understand how resilience influences your academic performance as a Junior High School student. The study will identify the behaviour and attributes you demonstrate to deal with challenges and they relate to academic success. Your parents/guardians have agreed that you can be part of this research.

What will happen to me?

If you want to be a part of this study, you will be asked to complete a questionnaire R-MATS (Resilience Questionnaire for Middle-Adolescents in Township Schools). It is made up of 24 statements on the characteristics of resilience, rated on a four-point Likert scale. For each statement, you are encouraged to tick the box which best describes you to assist in the provision of information for this research. (The completion of the questionnaire will require about 15 minutes.) The average academic score of participating students will be obtained from the management of the school for the study. Based on academic performance and resilience levels, selected students will be engaged in focus group discussions at a later date. Information obtained will be coded to ensure anonymity and participating students' academic average scores will be anonymised.

Will the project hurt?

No, this project will not hurt you. Participation in the survey as well as the focus group interview is entirely voluntary and students should not feel obliged to participate in any activity. Participants are at liberty to withdraw at any time from the study on their own free will. No one will have access to any information provided. The focus group meeting session will be audio recorded with your permission. I will do this to help me remember what was said during the sessions. I will ensure that the audio recordings are kept in a safe place. No one who is not part of this research process will be able to listen to the recordings. All your responses to the questionnaire (R-MATS), academic record details, and focus group discussion recordings will be kept confidential.

Covid-19 Clause

Due to COVID-19 and to minimise the spread of infection, the research may be conducted online or through various other media platforms.

Will the study help me?

This research will help you to understand resilience and enable you to identify behaviour and attributes that you can use to improve academic performance. At the same time, this study will protect you from challenges in the environment. It will also assist policymakers with information to design course content aimed at developing these competencies in Junior High School students.

Will students be compensated?

No compensation will be given to students in this study. Students will be given snacks (Juice and plantain chips) during the focus group discussion because they can be lengthy.

What If I have any questions?

You can ask any questions you have about the study. If you have questions later that you can't think of now, you can call me at +233547599850 or send an email using etbarimah2010@gmail.com

Do My Parents/Guardians Know About this Project?

This study was explained to your parents/guardians, and they have consented to your participation in the study if you are willing. You can discuss this with your parent before you choose to participate in this study or not.

Do I Have to be in the Project?

You are not obliged to be part of this research and can decide to stop participating at any stage of the research. No one will be upset with you. Feel free to let me know your decision.

Signing your name on this page means that you agree to be in the research of your own free will. You understand what will be expected of you and you are willing to be part of this research.

.....
Name and Signature of student Date

Esther Twum-Barimah (Researcher)..... Date

Prof. Ruth M. Mampane (Supervisor) Date.....

Ruth.mampane@up.ac.za +2712 420 2339

ANNEXURE C: TEACHER CONSENT FORM FOR PARTICIPATING IN A RESEARCH STUDY



Faculty of Education

Teacher Consent Form for Participating in a Research Study

Title of Research: The relationship between resilience and academic performance of Ghanaian Public Junior High School Students

Dear Participant, I am pleased to invite you to participate in a research study on the relationship between resilience and academic performance of Ghanaian Public Junior High School (JHS) students. Your consideration to participate in the study by answering interview questions will be of great assistance. This study is part of the requirement for a PHD in Learning Support, Guidance and Counselling at the University of Pretoria. I have a special interest in studying resilient enabling characteristics that have supported Public JHS students in the midst of challenges to forge ahead to achieve academic heights.

Participation in the study is entirely voluntary. You may decide to opt out of the research at any time. All information that will be provided is confidential. Hence the information provided cannot be traced to the participants. Your participation in the study will assist in the generation of empirical data that will support in the designing of course content intended to develop these competencies in Junior High School Students. The interview session will be audio-taped to enable the researcher to get the full details of the information provided.

Due to COVID-19 and to minimise the spread of infection, the research may be conducted online or through various other media platforms.

I am available to answer any questions on the research. Please feel free to connect with me at +233547599850 or by email using etbarimah2010@gmail.com

I hereby confirm that by signing this form, I give my consent to participate in this research on my own free will.

Name and Signature of Teacher

Date

.....

.....

Esther Twum-Barimah.....

.....

(Researcher)

ANNEXURE D: PARENT/GUARDIAN CONSENT FOR PARTICIPATION OF A MINOR IN A RESEARCH STUDY



Faculty of Education

Parent/Guardian consent for participation of a minor in a Research Study

**Title of Research: The relationship between resilience and academic performance
of Ghanaian Public Junior High School students**

Parent/Guardian form

Invitation to participate

I would like to invite your child to participate in a research study. To be able to decide whether to participate or otherwise, you need to be informed about the study, as well as risks and benefits. In order to decide whether or not to participate in the research study, you should know enough about the study and the risks and benefits associated with the study to make an informed decision. Once you understand the details of the study, you can decide if you want your child to take part. If so, you will be asked to sign this consent form, to give permission to your child to be part of the study.

Description of the Research

This study seeks to explore the role resilience plays in helping public Junior High School students enhance their academic performance. I would like to examine the traits and behaviours these students exhibit when confronted with a stressful or challenging situation and the academic outcomes these coping mechanisms yield. This study will help me gain deeper insight into the attributes these students will need to develop in order to excel within a non-enabling teaching and learning environment.

If you want your child to be a part of the study, he/she will spend about 15 minutes completing a questionnaire that assesses their level of resilience. Based on the results generated, your child may be asked to participate in a focus group discussion where they will interact with other children and discuss issues relating to resilience and academic performance.

Risks and Inconveniences

There is no risk associated with your child participating in this study. However in case, any child becomes emotionally upset during the focus group interviews, I have arranged for a psychologist to assist the child deal with these emotional challenges. The identity of the child will not be revealed to anyone, and any information that we get from the study will be kept private. All data will be coded to ensure anonymity and participating students' academic average scores will be anonymised.

Confidentiality

All information obtained from the study will be kept strictly confidential by the Researcher. The information will not be shared with anyone else. This means that your real name will not be used in anything connected with this research project. Hence, no one will know who you are when you participate in this study except in the focus group discussions where there are other participants who will participate in the discussion with you. All the information we get from the study will be stored in locked files in research offices at the University of Pretoria. Because confidentiality is important, we would expect that any information you provide is also private and that you would not discuss this information with anyone.

Benefits

This study will help your child to identify behaviours and attributes that they can use to improve their academic performance while helping them overcome the challenges they

face within their teaching and learning environment. It will also help your school design course content to help you develop these competencies.

What are the Rights of the Participants in this Study?

Participation in this study is purely voluntary, and both the parents/guardians as well as the child (student) may refuse to take part in the study or stop at any time without giving any reason. If the child decides not to participate or wants to stop taking part in the study after they have said yes, this would not affect the child or the parent in any way.

Will students be compensated?

There will be no compensation for taking part in the research study. Students will be given snacks (Juice and plantain chips) during the focus group discussion because they can be lengthy.

Covid-19 Clause

Due to COVID-19 and to minimise the spread of infection, the research may be conducted online or through various other media platforms.

Questions

Please feel free to ask any questions about anything you don't understand, while you think through and make a decision about whether or not you want to give permission for your child to take part in the study. If you would want to ask some questions later, please feel free to contact the researcher Esther Twum-Barimah at +233547599850, or through email at etbarimah2010@gmail.com

Informed Consent

I hereby confirm that I have received information about the nature, conduct, risks and benefits of this study. I have also read or have had someone read to me the above information regarding this study, and I understand the information that has been given to me. Additionally, the results and information about this study will be processed anonymously and anonymised. I may at any stage of the research, withdraw my consent

for the child to participate in this study. I have had sufficient opportunity to ask questions and (of my own free will) declare that I am providing consent for my child to participate in this study.

Please complete this form

I, _____, give permission / do not give permission (underline the appropriate one) for my child to participate in the above mentioned research. I understand my child's role during the process and should he/she wish to withdraw from the research, he/she may do so.

Name of Parent : _____ (Please print)

Name of Student: _____ (Please print)

Signature of Parent : _____ Date _____

ANNEXURE E: R-MATS SURVEY

1. Identification Particulars

Kindly tick (✓) only one column for each question.

	Institution & Allocated No.							
a	Gender	Male		Female				
b	JHS	Form 2		Form 3				
c	Age (in years)							
d	Date of birth	Day		Month			Year	
e	Ethnicity	Akan		Ga & Ga Adangbe		Ewe		
	Ethnicity	Dagbani		Dagaare		Kasem		
	Ethnicity	Nzema		Others (Kindly indicate)				
f	Accommodation Status	Wooden Kiosk / Container		Uncompleted House		Rented House		
	Accommodation Status	Owned House						
g	Family size (Total no. in the house)	≤ 5		6-8		≥ 9		
h	Religious	Christian		Moslem		Others (Kindly indicate)		

2. R-MATS Questionnaire

All answers should give an indication of your experiences and views. Please be honest with your answers.

- Please answer all the questions below, do not skip any question.
- Please tick (✓) only one box for every question.
- Please do not allow your response to one question to influence your response to the next question.

	QUESTIONS	TRUE <u>ALL</u> THE TIME	TRUE <u>MOST</u> OF THE TIME	UNTRUE <u>MOST</u> OF THE TIME	UNTRUE <u>ALL</u> THE TIME
1	I have an adult to talk to at home, who listens to me				
2	I make sure that I do my classwork and homework				
3	I do my best to find the right answer to a problem				
4	My teacher works hard to help me understand my work better				
5	I am in control of what happens to me				
6	I feel safe and loved at home, they want to know if I am OK				
7	Doing well at school is very important to me				
8	My future and success depend on my hard work				
9	I believe that I have good talents				
10	I do not allow people to stop me from trying to do my best in my work				
11	I believe that I am able to do better				

	QUESTIONS	TRUE <u>ALL</u> THE TIME	TRUE <u>MOST</u> OF THE TIME	UNTRUE <u>MOST</u> OF THE TIME	UNTRUE <u>ALL</u> THE TIME
12	Even when my problems are just too much, I do not give up trying to make it work				
13	I know someone at school who cares about me and I can talk to				
14	I use different ways to work out a difficult problem.				
15	There is at least one person I can talk to who listens to me and encourages me to do my best				
16	I believe that one day things will be better for me				
17	I do not like to be absent from school, I hate to miss the teaching				
18	I know a good person whose behaviour is an example to me				
19	Even when I don't understand in class I don't give up trying				
20	My teachers made me see that I am good with my work and can do well in class				
21	My teachers support me to aim high and to think of my bright future				
22	Teachers explain a lot in class, they give extra examples.				
23	My future is in my hands, nobody can take that away from me				
24	I am a tough person				

END OF QUESTIONNAIRE THANK YOU.

ANNEXURE F: FOCUS GROUP DISCUSSION GUIDE

1. What are your challenges as a student?
2. How do you overcome the challenges?
3. Who is a good student? (what must one do/ behaviour to become a good student?)
4. What makes one a good student?
5. How do you manage your academic life on a day-to-day basis?
6. Assuming there are no challenges, would you perform better in school?
7. What is your view about the contribution of the following on academic performance?
 - a. Sickness
 - b. Broken Homes
 - c. Bullying
 - d. Financial Challenges
 - e. Low Self Esteem
 - f. Domestic Duties (Including Trading After School)
8. What assistance do you think you would need to help you perform better? (school, home, etc)
9. In your view, (how) does the school environment. number of students in class, attitude of teachers & friends affect your performance {relate to school environment}
10. What does success look like to you?
11. Do you see yourself as a tough person?

ANNEXURE G: INTERVIEW GUIDE FOR TEACHERS

1. How do you understand resilience?
2. What are the factors that influence resilience?
3. How do you understand academic performance?
4. What are the factors that influence academic performance?
5. How long have you been teaching in general?
6. How long have you been teaching in this school?
7. How easy is it to get the resources you need to perform your job?
8. Does the school staff care about and respect the students?
9. How would you rate the facilities available for teaching and learning?
10. Do you feel the school staff has good knowledge in their areas of teaching?
11. Do you have the freedom to try innovative methods for better learning?
12. How involved are most parents in their children's education?
13. Do you feel that, in general, you have the support of your students' parents?
14. Do you have any specific suggestions for providing a better learning experience?
15. What do you think is the biggest challenge facing teachers today?
16. What do you think is the biggest challenge facing students today?
17. Would you recommend your school to a friend or colleague for their child's education?

ANNEXURE H: TEACHER INTERVIEW – SUMMARY (THEMES AND SUB-THEMES)

THEMES		Sub-Themes and Factors
THEME ONE: CHALLENGES AND HOW THEY AFFECT ACADEMIC PERFORMANCE		
1	Sub-Theme 1: Impact of Home and Community Environments on Students	▪ Economic and Living Conditions ▪ Home Environment of Students and Responsibilities ▪ Balancing School and Work ▪ Home-Related Challenges ▪ Accommodation Problems ▪ Home and Community Environment
2	Sub-Theme 2: Limited Parental Involvement and Supervision in Shaping Children	▪ Parental Monitoring ▪ Irresponsible Parents ▪ Low Parental Involvement ▪ Specific Instances of Parental Support ▪ Parental Control ▪ Family Support ▪ Lack of Homework Supervision

3	Sub – Theme 3: Impact of Financial Constraints on the Educational Experience: Challenges Faced by Students, Parents, and Teachers	▪ Financial Constraints ▪ Financial Challenges ▪ Financial Burden on Teachers ▪ Poor Care and Financial Support ▪ Food Insecurity
4	Sub – Theme 4: The Impact of Discipline and Motivation on Student Learning and Participation	▪ Self-Discipline ▪ Lack of Discipline and Poor Performance ▪ Lack of Personal Grooming ▪ External Motivation ▪ Encouragement and Guidance ▪ Student's Willingness to Learn ▪ Student Participation
5	Sub – Theme 5: The Influence of Teaching Methods and Teacher Expertise on Student Learning	▪ Teacher's Role ▪ Pedagogical Methods ▪ Teaching Style ▪ Tailored Methods ▪ Teacher's Subject Knowledge

6	Sub – Theme 6: The challenge of securing Educational Resources and Facilities in Enhancing Teaching and Learning	▪ Lack of Facilities ▪ Availability of Materials ▪ Teaching Tools ▪ Conducive School Environment ▪ Teaching and Learning Resources ▪ Lack of Teaching and Learning Materials ▪ Need for Computer Accessories ▪ Internet Connection ▪ Need for Projectors ▪ Inadequate Teaching Materials ▪ Resource Availability
7	Sub-Theme 7: Impact of Psychological and Environmental Factors on Student Well-being and Academic Performance	▪ Impact of Intimidation ▪ Intellectual Level of the Child ▪ Low Self-Esteem ▪ Mental and Environmental Factors ▪ Sleep and Well-being ▪ Substance Abuse ▪ Teenage Pregnancy
8	Sub-Theme 8: The Impact of Early Education, Teacher Effectiveness, and	▪ Weak Foundation at the Point of Entry ▪ Human Resource ▪ Classroom Challenges

	Classroom Conditions on Student Success	▪ The Classroom Overcrowding
THEME TWO: STRATEGIES USED TO OVERCOME CHALLENGES		
9	Sub-Theme 9: The Role of Teacher-Student Relationships in Fostering Respect, Care, and Academic Success	▪ Care and Respect ▪ Building Relationships ▪ Teacher-Student Interaction ▪ Personal Interest in Students ▪ Counselling and Discipline ▪ Approachability and Respect ▪ Continuous Monitoring
10	Sub-Theme 10: The Importance of Staff Qualifications and Stability in Education	▪ Staff Knowledge ▪ Qualified Staff ▪ Replacement of Teachers
11	Sub-Theme 11: Innovative Teaching Practices To Enhance Student Learning Through Creativity, Autonomy, and Experiential Learning	▪ Personal Initiative ▪ Freedom to Innovate ▪ Freedom to Improvise
12	Sub-Theme 12: Enhancing Educational Outcomes Through Improved Teaching Strategies, Resource Provision, and Student Engagement	▪ Improve Teaching Strategies ▪ Provide Teaching Materials ▪ Need for Teaching and Learning Materials ▪ Engaging Teaching Methods ▪ Resource Provision ▪ Assignments and Research ▪ Resource Enhancement

13	Sub-Theme 13: Improving Classroom Management to Enhance Learning Outcomes	▪ Specialised Centres ▪ Provision of Resources from the Government
14	Sub-Theme 14: Parental Responsibility	
THEME THREE: THE NATURE OF A GOOD STUDENT		
16	Sub-Theme 1: Assessment-Based Success and Mastery of Knowledge	▪ Assessment-Based Rating ▪ Mastery of Concepts ▪ Performance Through Examination ▪ Measurement through Assessments
17	Sub-Theme 2: Comprehension and Practical Application	▪ Understanding Taught Material ▪ Practical Application of Learning
18	Sub-Theme: 3 Integrating Behavioral Change, Personal Growth, and Academic Achievement	▪ Holistic Change in Behaviour ▪ Behaviour Reflection ▪ Virtues and Values ▪ Interpersonal Skills ▪ Holistic Development

		▪ Virtues and Values ▪ Continuous Evaluation
THEME FOUR: PERCEPTION OF SELF AS TOUGH AND SUCCESSFUL		
19	Sub-Theme 1: Overcoming Challenges and Adapting in Education	▪ Toughness and Persistence ▪ Persistence and Excellence ▪ Overcoming Tough Situations ▪ Overcoming Odds ▪ Ability to Recover ▪ Enduring Hardships ▪ Finances ▪ Navigating Family Responsibility
20	Sub-Theme 2: Intrinsic Motivation and Personal Traits in Building Resilience: The Role of Self-Determination, Goal-Setting, and Inspirational Support	▪ Motivation ▪ Optimism ▪ Internal Locus of Control
21	Sub-Theme 3: The Role of External Support, Positive Traits, and Role Models in Enhancing Resilience	▪ Social Support ▪ Collective Intelligence and Peer Support ▪ Encouragement

ANNEXURE I: TABLE SHOWING THEMES AND SUB-THEMES FROM THE THREE FOCUS GROUPS

Less Resilience and High Academic Performance (LRHAP)	High Resilience and High Academic Performance (HRHAP)	High Resilience and Low Academic Performance (HRLAP)
THEME 1: CHALLENGES AND HOW THEY AFFECT ACADEMIC PERFORMANCE 1,6,8,9		
LRHAP Sub-Theme 1: Educational Challenges ▪ Difficulty Learning Alone ▪ Lack of Textbooks ▪ Lack of Research Tools ▪ Classroom Environment	HRHAP Sub-Theme 6: Peer Pressure and Fear of Judgment ▪ Fear of Ridicule	HRLAP Sub-Theme 11: Home Responsibilities and Its Impact on Academics ▪ House Chores ▪ Supporting Family Businesses
LRHAP Sub-Theme 2: Socio-Economic Challenges ▪ Insufficient Funds for School ▪ Peer Influence ▪ Child Abuse ▪ Family Interference	HRHAP Sub-Theme 7: Time Management and Domestic Responsibilities ▪ Limited Time for Studies	HRLAP Sub-Theme 12: Challenges Within the School Environment ▪ Peer Distraction and Noise ▪ Bullying and Teasing ▪ Impact of Class Size ▪ Teacher Attitudes and Teaching Quality

LRHAP Sub-Theme 3: Personal Challenges ▪ Shyness and Social Anxiety ▪ Time Management ▪ Lack of Emotional Support ▪ Impact of Sickness	HRHAP Sub-Theme 8: Enablers and Inhibitors of Self Esteem ▪ Lack of Motivation ▪ Low Self-Esteem ▪ Impact of Bullying ▪ Impact of Broken Homes ▪ Teacher-Student Relationship	
LRHAP Sub - Theme 4: Parental, Social and Home Environment Challenges ▪ Lack of Parental Care and Attention ▪ Social Media Influence ▪ Time Management Issues ▪ Emotional and Psychological Impact ▪ Broken Homes ▪ Maltreatment by Stepparents	HRHAP Sub-Theme 9: Impact of Financial Challenges	HRLAP Sub-Theme 13: Effect of Broken Homes on Academic Performance ▪ Negative Impact of Family Disruption ▪ Stable Support Despite Family Issues (90% of participants raised their hands indicating that they live with a single parent)
	HRHAP Sub-Theme 10: Impact of the School Environment ▪ Environmental Distractions ▪ Hygiene and Comfort	HRLAP Sub-Theme 14: Financial Challenges and Academic Performance ▪ Negative Impact of Financial Constraints
LRHAP Sub-Theme 5: Influence of School Environment ▪ Lack of Competition ▪ Noise and Distractions		

▪ Conflict and Friction ▪ Bullying ▪ Attitude of Teachers		
THEME 2: STRATEGIES USED TO OVERCOME CHALLENGES 2,4,5		
LRHAP Sub-Theme 1: Building Personal Qualities ▪ Self-Confidence ▪ Self-Identification ▪ Being Attentive and Proactive	HRHAP Sub-Theme 9: Self-Motivation, Positive Mindset and Fearlessness ▪ Resilience and Persistence	HRLAP Sub-Theme 22: Time Management and Scheduling ▪ Apportioning Time for Tasks ▪ Reducing Workload ▪ Maximising Limited Time ▪ Study Time Allocation ▪ Integrating Research with Study
LRHAP Sub-Theme 2: Goal Setting and Planning ▪ Time Management ▪ Goal Setting and Planning ▪ Importance of Discipline		HRLAP Sub-Theme 24: Motivation and Encouragement ▪ Personal Motivation ▪ Activities for Encouragement

LRHAP Sub-Theme 3: Parental Communication and Understanding ▪ Communicating Needs to Parents ▪ Improving Attitude		
LRHAP Sub-Theme 4: Active Participation in Class ▪ Asking Questions ▪ Following the Teacher ▪ Not Talking When the Teacher Is Teaching ▪ Showing Interest in the Topic LRHAP Sub-Theme 5: Independent Learning ▪ Doing Research	HRHAP Sub-Theme 10: Academic Engagement and Focus ▪ Active Participation in Learning ▪ Maintaining Focus and Limiting Distractions ▪ Time Management and Task Prioritisation HRHAP Sub-Theme 11: Internal and External Motivation ▪ Extrinsic Motivation ▪ Intrinsic Motivation	

▪ Learning to Read on Your Own ▪ Doing Revisions ▪ Learning Ahead ▪ Asking for More Knowledge		
LRHAP Sub-Theme 6: Developing Mental Stamina to handle Peers, Academics and Self ▪ Having a Sound Mind ▪ Meeting academic needs and adapting ▪ Handling Peer Pressure		
LRHAP Sub-Theme 7: Personal Responsibility and Decision-Making ▪ Taking Responsibilities ▪ Focusing on Education	HRHAP Sub-Theme 11: Uninterrupted Learning versus Embracing Challenges for Growth ▪ Enhanced Performance: ▪ Embracing Challenges for Growth	(The whole group agreed that if there are no challenges, they will all perform well academically)
LRHAP Sub-Theme 8: Embracing Challenges to enhance determination ▪ Challenges Build Determination ▪ Challenges as Obstacles to Academic Focus		
THEME 3: THE NATURE OF A GOOD STUDENT 3,7		
FG Q3		

LRHAP Sub-Theme 1: Personal Traits and Academic Engagement ▪ Asking Questions and Understanding Topics ▪ Paying Attention in Class ▪ Completing Homework and Exercises for Continuous Learning ▪ Social and Emotional Traits ▪ Confidence ▪ Being Curious	HRHAP Sub-Theme 4: Academic Engagement and Diligence ▪ Adherence to School Rules and Discipline ▪ Commitment to Studies and Effort ▪ Focus and Goal Orientation	HRLAP Sub-Theme 7: Academic Diligence ▪ Consistent Learning and Revision ▪ Performance in Academics
LRHAP Sub-Theme 2: Personal Discipline and Planning ▪ Personal Discipline ▪ Adherence to Rules and Regulations ▪ Time Management	HRHAP Sub-Theme 5: Positive Personal Qualities and Values ▪ Active Listening and Respect ▪ Altruism and Supportiveness ▪ Avoidance of Negative Peer Pressure	HRLAP Sub-Theme 8: Discipline And Positive Behaviour Respect and Responsibility ▪ Respect for Teachers ▪ Responsibility Discipline, and Positive Behaviour ▪ Discipline ▪ Paying Attention in Class ▪ Obeying Rules and Regulations ▪ Politeness and Respectful Communication ▪ Punctuality and Hard Work
		HRLAP Sub-Theme 9: Active Engagement in Learning

		▪ Seeking Clarifications and Help ▪ Utilising Resources for Learning ▪ Involvement in School Activities
FG Q7		
LRHAP Sub-Theme 3: Support for Enhanced Academic Performance ▪ Family Support ▪ Additional Academic Support ▪ Resources for Learning	HRHAP Sub-Theme 6: Academic Support and Resources ▪ Additional Learning Resources ▪ Individualised Support	HRLAP Sub- Theme 10: Assistance Needed at Home ▪ Parental Involvement and Encouragement. ▪ Additional Tutoring and Study Support ▪ Time Management and Reduced Domestic Responsibilities
		HRLAP Sub- Theme 11: Assistance Needed at School ▪ Better Explanation of Class Topics ▪ Extra Classes ▪ Discipline and Class Room Management
THEME 4: PERCEPTION ON STUDENTS' RESILIENCE 10,11 FG Q10		

LRHAP Sub-Theme 1: Pathways to Achievement and Fulfilment ▪ Achievement of Goals and Ambitions ▪ Fulfilment and Satisfaction ▪ Meeting Needs through Hard Work	HRHAP Sub-Theme 3: Perceptions of Success ▪ Achievement of Personal Goals ▪ Realisation of Dreams ▪ Freedom and Fulfilment ▪ Achievement as a Journey ▪ Impact on Others	HRLAP Sub-Theme 8: Academic Excellence and Overcoming Challenges ▪ Achievement in Education ▪ Resilience and Perseverance
FG Q11		
LRHAP Sub-Theme 2: New: Self-Perception of Toughness ▪ Responses to Challenges ▪ Self-Perception of Toughness	HRHAP Sub-Theme 4: Resilience and Toughness in Facing Academic Challenges ▪ Learning from Mistakes ▪ Focusing on Goals Despite Difficulties ▪ Using Criticism Constructively ▪ Proving Doubters Wrong ▪ Enduring Challenges as Part of Success ▪ Internal Strength and Self-Belief (90% of participants raised their hands indicating that they see themselves as tough).	(80% of participants raised their hands indicating that they see themselves as tough).