

**A STRATEGY TO ENHANCE ENABLING LEARNING ENVIRONMENT FOR
CYBERBULLIED ADOLESCENTS IN A RURAL ECOLOGY**

by

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DECLARATION

I, Olukoya Adewale Olotu, hereby declare that the thesis titled: “*A strategy to enhance enabling learning environment for cyberbullied adolescents in a rural ecology*” is my original and independent work from conception to completion. The thesis has not been previously submitted at any institution. The sources cited are acknowledged and indicated on the list of references.



SIGNATURE

(O.A. OLOTU)

30/06/2024

DATE

DEDICATION

This thesis is dedicated to the Almighty God for His grace and strength granted to me from the start to the completion of this research.

Also, I dedicate the thesis to my family members: Gloria, Kolade, Bolade, Gbolade and Lolade Olukoyas.

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ABSTRACT

The study aimed to design a strategy that enhances the learning environment of cyberbullied adolescents in a rural ecology. The researcher found a gap created by a need for emphasis on cyberbullying incidences in rural areas in contrast to previous studies that focused on cyberbullying in urban, cities and metropolitans. The study is theoretically framed by Bronfenbrenner's ecological systems theory of development, Bandura's Social Learning Theory and Erik Erikson's theory of psychosocial development. The research paradigm is guided by the transformative paradigm, centring on the emancipation of socially marginalised individuals or groups. The study was conducted in two phases, using a mixed methods approach, specifically the explanatory sequential design (ESD), which entails the administration of an initial quantitative phase followed by a detailed qualitative phase. The population comprises 32,219 adolescents based on the national population census of the rural Irepodun-Ifelodun Local Government Area of Ekiti State, Nigeria. Creative Research System Survey Software was employed to calculate the sample size using a confidence level of 95% and a confidence interval of 6.98. The quantitative phase comprised 178 adolescents selected from Junior and Senior High schools, of which 10 were selected in the qualitative phase. The ten adolescents partook in the photovoice and focus group interviews; also, purposive sampling was used to select eight stakeholders who participated in the semi-structured interviews. The quantitative and qualitative data were analysed and integrated; the results confirmed a high prevalence of cyberbullying in the rural learning environment. Also, the findings indicated that the participants (adolescents and stakeholders) demonstrated limited knowledge of cyberbullying. Therefore, there is a need for enlightenment and a campaign against cyberbullying in the rural learning environment and across the state. Implementing the study will empower socially marginalised adolescents to prevent and curb the spread of cyberbullying. The designed strategy will also equip the Ministry of Education in Ekiti State, Nigeria, the society, and the research communities to enhance the learning environment of cyberbullied adolescents in the rural community.

Keywords: Adolescents, cyberbullying, learning environment and rural ecology.

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ABBREVIATIONS/ACRONYMS

CBA	Cyberbullied Adolescents
ESD	Explanatory Sequential Design
G&C	Guidance and Counselling
RE	Rural Environment
UNAD	University of Ado-Ekiti
UNILAG	University of Lagos

CHAPTER 1

OVERVIEW OF THE STUDY

1.1 INTRODUCTION

The study aims to design a strategy that enhances the learning environment of cyberbullied adolescents in a rural ecology. This chapter provides an overview of the study, including its motivation, background, clarification of concepts, problem statement, research questions, objectives, theoretical framework, methodology, guiding theories, value of the research, ethical considerations, and concluding summary.

1.2 MOTIVATION FOR THE STUDY

1.2.1 My journey and rationale

The rationale behind the study was premised on my passion for adolescents and the teaching encounters I had in rural secondary schools in Ekiti State, South-West Nigeria, where I spent about five years at two different schools. Though a trained counsellor, I worked as a subject teacher in both schools. The schools provided separate, distinct experiences; the first was a day school, where I taught for a year before being transferred to a full-boarding school, and I was there for four years, after which I got a teaching job at a university.

Being a trained counsellor with teaching subjects gave me unique opportunities to teach and counsel. I observed and witnessed online bullying among high school adolescents during my teaching encounter. A particular event caught my attention when one of the best students missed a test because fellow students cyberbullied her, took her private photos, and uploaded them online. The experience devastated her and made her stay in her hostel crying all day. Ever since the incident, I have taken a keen interest in finding a lasting solution to cyberbullying. In addition, the reported cases of cyberbullying in rural areas are corroborated by the rise in cyberbullying activities across the Nigerian States.

1.2.2 The PhD Journey

I started the PhD programme at the University of the Free State, Bloemfontein campus. My research involves a mixed-methods approach, which is quite tasking, an explanatory sequential design involving two different stages, the quantitative and qualitative phases. This approach entails writing two methodologies and results chapters (study I and II) and integrating the key findings. The journey took a little beyond my initial projected time; however, I kept moving despite challenges from home and abroad.

I appreciate my supervisor's support in sending regular postgraduate seminars and workshop links from the Centre for Graduate Support to enrich and equip my studies. It motivated me to make the best decision in the PhD journey: resigning from my student job to focus and concentrate on my studies. It wasn't easy because I needed the money for upkeep and family support at home. Nevertheless, it allowed me to commit more hours daily for several months before completing the last chapters of the thesis.

1.3 BACKGROUND OF THE STUDY

A growing number of stakeholders worldwide are increasingly concerned about cyberbullying perpetration among adolescents (Giumetti & Kowalski, 2022:1; Zhu, Huang, Evans, & Zhang, 2021:9; Abaido, 2020:409). In previous years, the focus has been on cyberbullying prevalence in cities (Krešić Ćorić & Kaštelan, 2020:269); however, in recent years, there have been reports of cyberbullying incidence in rural learning environments. Studies conducted by Cabrera, Larrañaga, and Yubero (2022: 1), Farhangpour, Maluleke, and Mutshaeni (2019:2), and Olumide, Adams, and Amodu (2015:183) recounted cases of cyberbullying in rural learning environments. Reports also indicated that Nigerian adolescents in rural communities are exposed to cyber harassment perpetrated in and out of the learning environment (Ibrahim & Vi, 2021:4; Nwosu, Ngozi, & Eberechi, 2018:54). This calls for concern; hence, if cyberbullying prevalence is not curbed, it could impede the development of the adolescent child (Jun, 2020:6; Vaughn, 2020:27; Wagner, 2019:307; Alim, 2016:74). To elucidate the background of the study, the clarification of concepts, the relation between adolescents and cyberbullying, and cyberbullying in the rural learning environment is discussed below.

1.3.1 Clarification of concepts

In this section, the concepts of enabling learning environment, cyberbullying, strategy and rural ecology are elucidated below to give further explanation to the background of the study.

- **Enabling learning environment (ELE)**

An enabling learning environment (ELE) is an atmosphere where every learner is warmly received with respect and where teaching and learning take place without intimidation, harassment, or coercion (Isomöttönen, Daniels, Cajander Pears, & McDermott, 2019:1; Ngene, Quadri, Tenebe, & Bamigboye, 2018:3505). Fletcher, Everatt, Mackey, and Fickel (2020:91), Cassum and Gul (2017:108–109), and Özerem and Akkoyunlu (2015:64) opined that an enabling learning environment is a space where there is a positive interaction between learners and their environments and where learners' potential is harnessed, developed, and maximised without hindrance or limitation. Ibe, Owoseni, and Alagbe (2017:6275) explained that a conducive learning environment goes beyond the four walls of classrooms but is classified under three aspects: indoor, outdoor, and emotional environments. Similarly, Aldridge, McChesney, and Afari (2018:153), Sithole (2017:73), and Odeh, Oguche, and Ivagher (2015:4916) grouped the learning environment into two, namely, the physical and psychological domains. The physical space comprises the teachers, students, classroom space, and furniture. In contrast, the psychological space includes the interactions and emotions between the learner and the environment (Richardson & Mishra, 2018:45). Since learning occurs in both the physical and psychological domains and cyberbullying is perpetrated within and outside of school environments, it implies that cyberbullying could interfere with the learning process of adolescents (Vaughn, 2020:27; Belaineh, 2017:695; Vinales, 2015:454).

- **Cyberbullying**

Furthermore, cyberbullying is any form of online harassment perpetrated intentionally to harm a victim (Akrim & Sulasmi, 2020:324; Longobardi, Prino, Fabris, & Settanni, 2017:254). It is an act committed on social media with a motive to hurt or injure a person or group of people (Wagner, 2019:311). According to Macaulay, Betts, Stiller, and Kellezi (2022:4) and Wolke, Lee, and Guy (2017:900), cyberbullying is a type of bullying committed via an electronic medium such as text

messages, e-mails, online chat rooms, or social networking sites. Geleta (2020:2) and Smith (2015:178) also termed cyberbullying as using technology to harass, intimidate, embarrass, and oppress a target person or group. Cyberbullying is the repeated and willful act of oppression, intimidation, coercion, and abuse via online platforms (Powell, Scott, & Henry, 2020:199; Asanan, Hussain, & Laidev, 2017:1). Although there are no satisfiable reasons for bullying, power imbalances seem to exist between the victims and the perpetrators (Choi & Park, 2018:2415), who deliberately oppress and intimidate victims based on physical or social-economic status, class, tribe, nationality, race, skin colour, height, language, religion, intelligence, and other discriminating factors (Klein, 2019:6; Corcoran, Guckin, & Prentice, 2015:246).

- **Strategy**

The researcher's goal was to design a strategy for cyberbullied adolescents. The word strategy, as used in the study, implies a model, a plan of action, a procedure, or a policy to follow (Gagné, 2018:83; Kiser & Ostrom, 2000:63). The designed strategy (model) was based on Bronfenbrenner's Ecological Systems Theory of Development (1979), Bandura social learning theory and Erik Erikson theory of psychosocial development. According to Bronfenbrenner the strategy components include the microsystem, mesosystem, exosystem and macrosystem (Saad *et al.*, 2017:527). In addition, to enhance the enabling learning environment for cyberbullied adolescents, a strategy was proposed by designing and integrating Bandura's Social Learning Theory and Erikson's Theory of Psychosocial Development (Chun, Lee & Kim, 2021:1).

- **Rural ecology**

As it applies to the study, rural signifies a remote, typical village representing an underdeveloped area (Li, Westlund & Liu, 2019:136). It connotes deprived communities characterised by limited social and economic opportunities (Wilson, Wilson & Usher, 2015:418). While ecology represents an interactive environment where the child grows, it comprises the human and non-human components (Zang, Yang & Liu, 2021:172). In this study, rural ecology is an infrastructurally marginalised community, a place cut off from the mainstream of activities (Zenic, Taiar, Gilic, Blazevic, Maric, Pojskic & Sekulic, 2020:2; Robards, Kang, Steinbeck, Hawke, Jan, Sancic, Liew, Kong, & Usherwood, 2019: 2).

As the focus of the study is on adolescents and cyberbullying, the relationship between the concepts will be deliberated in short.

1.3.2 Adolescents and cyberbullying

Adolescence is a state of puberty, a developmental stage from childhood to adulthood. In contrast, the growing person from childhood to adulthood is referred to as the adolescent (Goodway, Ozmun & Gallahue, 2019:300). In this study, the adolescent child lives in an environment and metamorphoses physically, psychologically and emotionally (Sawyer, Azzopardi, Wickremarathne & Patton, 2018:223). Adolescence is a culturally determined concept that encompasses physical, psychological, and social changes and serves as a transition from youth to adulthood (Goodway *et al.*, 2019:300). During adolescence, young people experience significant biological, psychological, social, and cognitive changes as they transition from childhood to adulthood (Lucaccioni, 2020:2; Hazen, Schlozman & Beresin, 2008:162). This period presents opportunities for empowerment and learning but vulnerability to risk behaviours and environmental factors that impact health. All through adolescence, identity formation is a critical aspect which is influenced by hormonal changes, culture, society, cognitive and emotional difficulties (Bell, 2020:103; Kitchens & Abell, 2020:1254).

Adolescence serves as a transitional and developmental phase for adolescents, necessitating an enriched environment to facilitate their physical, mental, and psychological growth and to unlock their full capabilities (Goodway, Ozmun & Gallahue, 2019:300; Lau & Kwok, 2000:41). Nevertheless, in the presence of persistent cyberbullying, learners may not be able to reach their utmost potential (Vaughn, 2020:27). Though some schools of thought argue that adolescence is a period of crisis and turbulence, contrary to this claim, adolescents should be seen from a positive and strong perspective (Frankel, 2023:5). They are energetic and vibrant; they should be provided support and a viable learning environment to reach their heights and maximise their potential (Sathyamurthi & Sathish, 2020:233). Adolescents in rural areas represent a minority group in society. Some have internet access, use smartphones, and socialise on social media platforms. Hence, they could be vulnerable to online bullying when exposed and unprotected if such exposure is not guided and regulated (Hampton & Shin, 2022:1). Therefore, there is a need to create an enabling learning environment for cyberbullied adolescents in rural ecology.

Cyberbullying perpetration has witnessed an upsurge among Nigerian adolescents (Ugochukwu, Ijeoma, Mary, Ursula & Cornelius, 2022:28; Adebayo, Ninggal, & Ajiboye, 2019:17; Emmanuel, Anayochi & Thompson, 2015:109). According to reports, most victims choose to remain silent while the perpetrators go unpunished (Anwar, Kee & Ahmed, 2020:290; Olumide *et al.*, 2015:1). Despite varying opinions regarding the gender that engages in cyberbullying more frequently, scholars hold contrasting perspectives. Nonetheless, consensus exists among researchers that both male and female adolescents are perpetrators of cyberbullying (Krešić Ćorić & Kaštelan, 2020:270). Furthermore, research findings have reaffirmed that boys are more inclined to engage in cyberbullying, while girls tend to be on the receiving end (Kowalski, 2018:132; Lapidot-Lefler & Dolev-Cohen, 2015:6).

Studies indicate that the escalation in cyberbullying occurrences among adolescents can be attributed to various factors. One of the presumed causes is thought to be the extensive utilisation of smartphones among adolescents, which have become an integral component of their everyday routines (Qudah, Albursan, Bakhiet, Hassan, Alfnan, Aljomaa & AL-Khader, 2019:628; Lenhart, 2015:1). Another factor that appears to play a role in the recent increase in cyberbullying is associated with the digital nature of social media platforms. These platforms allow users to register online while concealing their identities using anonymous or proxy methods (Nieto & Rios, 2019:2; Betts, 2016:113; Zuckerman, 2016:64).

The next section will focus on the rural learning environment where the study was executed.

1.3.3 Cyberbullying in the rural learning environment

Though attention has been drawn to cyberbullying among adolescents in urban learning environments (Radebe & Kyobe, 2021:2; Asanan *et al.*, 2017:57), cyberbullying has been reported among adolescents in rural learning environments. Mimbi, Nembandona, Mtshazi (2018:86), and Painter (2014:4) ascertained cyberbullying in rural high schools. The finding was corroborated by Farhangpour *et al.* (2019:4) and Reason, Boyd, and Reason (2016:2331), which confirmed the prevalence of cyberbullying in rural learning communities. Similarly, adolescents in Nigerian rural communities, compared to those in cities, can also access the internet, allowing them to socialise and engage with their counterparts on social media (Rufai *et al.*, 2021:3; Emmanuel *et al.*, 2015:117). Despite the opportunities offered by Information Communication Technology (ICT), the impending dangers posed by cyberbullying among adolescents in rural learning environments

cannot be ignored; this is one of the reasons Raufelder and Kulakow (2021:300) and Amadioha (2015:158) suggested that for active learning to take place, there should be a positive interaction between the learning environments and the learners' world.

Previous studies have revealed that cyberbullied adolescents display anxiety and emotional and psychological instability (Jun, 2020:6; Baruah, Dashora & Parmar, 2017:141; Horner, Asher & Fireman, 2015:288). Other findings also affirmed the devastating impact of cyberbullying on learners' academic performance. Countries such as the USA, Britain, Canada, and Australia have taken measures to control cyberbullying by introducing anti-bullying policies and interventions (Gaffney, Farrington, & Ttofi, 2019:14; Hinduja & Patchin, 2014). In Nigeria, despite the increasing rate of cyberbullying, there is no law guiding or regulating cyberbullying activities, and neither is there an anti-bullying policy in schools to stop the act (Nwosu *et al.*, 2018:46). It makes cyberbullying among adolescents a concern to parents, teachers, counsellors, and stakeholders.

1.4 PROBLEM STATEMENT

The problem of the study emanated from a need to give attention to cyberbullying perpetration among adolescents in rural learning environments. The researcher found a gap created by a need to emphasise cyberbullying incidences in rural areas in contrast to previous studies that focused on cyberbullying in urban, cities and metropolitans. Also, cyberbullying has been found to have a significant influence on rural adolescents (Han, Wang & Li, 2021:1; Farhangpour, Mutshaeni *et al.*, 2019:1). Cyberbullying has adverse effects on the learning environment of adolescents in rural communities, and is associated with emotional neglect, social anxiety, and a tendency towards aggressive behaviour (Farhangpour *et al.*, 2019:3; Chapin & Coleman, 2017:315). Adolescents who experience cyberbullying may exhibit behavioural disorders, somatic symptoms, and a tendency towards suicidal behaviour (Vaughn, 2020:27; Wagner, 2019:307). Coping mechanisms for cyberbullying involve team efforts from parents, teachers, and students, and seeking professional advice or reporting the matter to parents, teachers, or school principals (Kavuk-Kalender & Keser, 2018:26). The effects of cyberbullying can be long-lasting, impacting individuals' social, academic, and emotional lives and even predicting bullying behaviours in adulthood (Powell, Scott, & Henry, 2020:199). The lack of intervention programs thus leaves adolescents who are victims of cyberbullying vulnerable. It is important to note that effective interventions should focus on developing adaptive coping strategies to address cyberbullying

among rural adolescents. The above-mentioned, therefore, underscores the need to embark on this research aimed at designing a strategy to enhance the enabling learning environment of cyberbullied adolescents (CBA) in rural ecology.

1.5 RESEARCH QUESTIONS

The following research questions are formulated to guide the study.

1.5.2 Primary research question

How can the learning environment be enhanced for cyberbullied adolescents (CBA) in a rural ecology (RE)?

1.5.3 Secondary research questions

1. What do adolescents in a rural environment understand as cyberbullying?
2. Which factors contribute to adolescents' cyberbullying in a rural environment?
3. How do adolescents perceive an enabling learning environment?
4. What are the threats to the enabling learning environment of cyberbullied adolescents?
5. How can we enhance the learning environment of cyberbullied adolescents in a rural environment?

1.6 RESEARCH AIM AND OBJECTIVES

1.6.2 Research aim

This study aims to design a strategy that enhances the learning environment of cyberbullied adolescents in a rural ecology.

1.6.3 Research objectives

The following objectives are set to achieve this aim:

1. To investigate what adolescents understand as cyberbullying in a rural environment.
2. To evaluate the factors contributing to adolescents' cyberbullying in a rural environment.
3. To examine adolescents' perception of an enabling learning environment.
4. To determine the threats to an enabling learning environment of cyberbullied adolescents in a rural environment.

5. To explore how to enhance the learning environment of cyberbullied adolescents in a rural environment.

1.7 THEORETICAL FRAMEWORK

This study is theoretically framed by Bronfenbrenner's Ecological Systems Theory, Bandura's Social Learning Theory and Erik Erikson's Theory of Psychosocial Development. The theories are applied to substantiate the study's underlying variables to design a strategy that enhances the learning environment of cyberbullied adolescents in a rural ecology. The key variables of the study include "learning environment and rural ecology." These are addressed using Bronfenbrenner's ecological systems theory. In addition, the application of Bandura's Social Learning Theory and Erik Erikson's Theory of Psychosocial Development complement the theoretical framework by addressing cyberbullying and adolescent variables.

1.7.1 Bronfenbrenner's Ecological Systems Theory

Urie Bronfenbrenner was a Russian-born American Developmental Psychologist. He pioneered the Ecological System Theory in 1977 and later modified it into the Ecological System Theory of Human Development in 1979. Before his death, the theory was renamed Bioecological System Theory. The word ecology originated from the Greek word "Oikos", meaning house or environment and "logos ", meaning knowledge (Tudge & Rosa, 2019:1; Bronfenbrenner, 1974:147).

The theory is premised on the relationship between a child and the environment and the influence of such an environment on the child's existence and development (Campos-Gil, Ortega-Andeane & Vargas, 2020:2). The child (learner), society, and the environment are interrelated and form the system (Dishion *et al.*, 2019:42). Scholars have applied the theory to unravel the nature of online bullying, oppression, and power differences among adolescent students (Eriksson *et al.*, 2018:426; Swearer & Hymel, 2015:344).

This theory is relevant to the study because it emphasises the importance of social interaction between learners and their immediate environment (Julienne, 2019:51). In this context, the adolescent socialises on social media platforms and interacts with friends, classmates, and family

and community members (Van-Hee *et al.*, 2018:1). If this relationship is thwarted, it can obstruct the adolescent's well-being (Chandran, Namboodiripad & Madhavan, 2018:588). Also, since the theory is based on the ecological theory of development and adolescence is a developmental stage, this affirms the connection between the study and the theoretical framework. Moreover, this will help identify and understand how to design a strategy to enhance the learning environment for cyberbullied adolescents in rural ecology.

According to Bronfenbrenner's ecological systems theory, an individual does not exist in isolation but within an environment called an ecosystem. These systems consist of the microsystem, mesosystem, exosystem, and macrosystem (Mulisa, 2019:104; Saad, Puteh-Behak, Darmi, Harun, Ali & Samah, 2017:527). These systems are interrelated, as what happens to one affects the others. In this theory, the child is at the centre. At the same time, cyberbullying occurs within the social networks of peer connection on chatrooms, Facebook Messenger, the WhatsApp application, and other similar platforms – linked to the mesosystem (Vélez-Agosto *et al.*, 2017:902).

The microsystem refers to family members, schools, neighbourhoods, communities, and peer groups (Analisah & Indartono, 2019:240). These institutions have an immediate impact on the child's holistic development (Julienne, 2019:51). The mesosystem involves the interdependency between microsystems, i.e., the flow of relationships between the home, school, fellow peers, and communities (Herselman *et al.*, 2018:3; Bronfenbrenner, 1979:25). The theory implies that adolescents have direct interactions with their immediate environments, the influence of which elicits specific responses and behaviours from the adolescents (Prinsloo, Prinsloo & Nafisah, 2019:7; Soares, Brochado, Barros & Fraga, 2015:206). The exosystem is the bridge between social networks, which the adolescents do not have a direct link, yet this can affect the child's well-being; an example of this includes the work experience of the parents (Schofield, 2019:21; Lee & Choi, 2015:302; Onwuegbuzie, Collins & Frels, 2013:4). Finally, the macrosystem describes the culture in which adolescents live. It also comprises the norms, beliefs and policies affecting adolescents (Hawkins, 2019:56; Rosa & Tudge, 2013:247). It could be deduced from the theory that cyberbullying should be addressed from a holistic viewpoint approach. This theory is pertinent to this study, as it fosters inclusiveness and participatory and democratic values, leading to the design of a strategy to enhance the learning environment for cyberbullied adolescents in rural ecology.

1.7.2 Bandura's Social Learning Theory

Bandura's Social Learning Theory is applied to enhance the learning environment of cyberbullied adolescents in rural environments (Gallo, 2021:11). Social learning theory has been applied to demystify cyberbullying perpetration among adolescents (Lucas, 2018:106). The theory underscores the significance of observational learning, whereby individuals acquire knowledge by observing others. By implementing this theory, learners have the opportunity to establish and foster an all-inclusive learning environment that effectively addresses the issue of cyberbullying (Rumjaun & Narod, 2020:85). Through the exhibition of positive behaviours and the provision of opportunities for students to observe and learn from their peers, adolescents can acquire the necessary skills to effectively cope with cyberbullying and actively engage in prosocial conduct (Abdullah & Ahmed, 2022:137). Furthermore, the theory emphasises the pivotal role of reinforcement and consequences in moulding behaviour (Grusec, 2020:68). In addition, the application of social learning theory offers positive reinforcement for desired behaviours and appropriate consequences for instances of cyberbullying, thus fostering an environment that prioritises safety and respect (Marzano, 2022:803; Huston, 2018:69). The theory is further discussed in chapter three.

1.7.3 Erik Erikson's Theory of Psychosocial Development

Erik Erikson's Psychosocial Theory of Development can be applied to enhance the learning of cyberbullied adolescents and understand the relationship between psychosocial development and adolescent cyberbullying. According to Erikson, adolescents go through a stage of identity versus role confusion, exploring their sense of self and trying to establish their identity (Benson & Bundick, 2020:196). This stage is particularly relevant for cyberbullied adolescents, as they may struggle with their self-esteem and social interactions (Darling-Fisher, 2019:432). By considering the various psychosocial stages proposed by Erikson, such as identity versus role confusion, adolescents who have experienced cyberbullying can be supported in developing a sense of identity and overcoming the adverse effects of cyberbullying (Kitchens & Abell, 2020:1254). This can be achieved through interventions that promote trust, safety, acceptance, and communication in relationships, as well as helping adolescents comprehend their wants and expectations from relationships (Rerung, 2023:45). Additionally, understanding the impact of social environments,

such as family dynamics and social learning, can contribute to addressing the underlying factors that contribute to cyberbullying behaviour (Chan, Cheung & Lee, 2021:2). By integrating Erikson's theory into interventions and educational practices, educators and practitioners can create a supportive environment that fosters positive psychosocial development and reduces the occurrence of cyberbullying among adolescents (Wijaya, 2022:45). Further explanation of the theory is provided in chapter three.

1.8 RESEARCH METHODOLOGY

The following is a summary of the research methodology.

1.8.1 Research paradigm

This study is situated in the transformative paradigm. According to Mertens (2017:21), the transformative paradigm is centred on the emancipation of the oppressed and the socially marginalised individuals, groups, or communities. It addresses power differences, emphasises social justice, and promotes a democratic research process among the community's researcher, participants, and relevant stakeholders (Phelps, 2020:1). Bearing in mind the study's title, two variables stood out, first, cyberbullying, second, rural ecology; as earlier explained, cyberbullying is intentional intimidation or an act of oppression against a target victim or groups. Therefore, applying the research paradigm would enlighten and emancipate cyberbullied adolescents in rural communities (Diercks, Larsen & Steward, 2019:881). Also, rural ecology is defined as a socially marginalised community far from the mainstream of economic and social activities (Marovah & Mkwanzani, 2020:215; Khanare & de Lange, 2017:2). Therefore, considering the alignment between the research paradigm and the aim of the study, “to design a strategy that enhances the learning environment for cyberbullied adolescents in a rural ecology,” this thereby justifies the need to position the study under the transformative paradigm (Mertens, 2017:18; 2015:76; 2010:469). Hence, this study will empower the socially marginalised cyberbullied adolescents living in rural ecology.

1.8.2 Research design

The researcher adopts a mixed-method research design to design a strategy that enhances the learning environment of cyberbullied adolescents in rural ecology. This approach calls for the inclusion of the research participants and the various stakeholders in the multiple stages of the

research process (Sendall, McCosker, Brodie, Hill & Crane, 2018:2; Creswell & Plano Clark, 2011:6). Also, the design is suitable for the socially marginalised cyberbullied adolescents living in the rural community, as the result of the research will empower them with a voice in the society.

The researcher implements the Explanatory Sequential Design (ESD) to achieve the study's aim and objectives. In this design, the quantitative inquiry precedes and leads to the qualitative approach (Cohen, Manion & Morrison, 2018:47; Olson & Jason, 2015:1; Creswell & Plano Clark, 2011:6), which is suitable for this study as it facilitated the administration of a quantitative method, after which a detailed qualitative approach is administered (Creswell & Plano Clark, 2018:231; Whitehead & Schneider, 2012:266).

1.8.3 Data collection

Under the transformative paradigm, the mixed-method research design supports using various data collection techniques to help understand the research problem. The researcher employed multiple data-gathering techniques, including questionnaires, focus group interviews, photovoice, and semi-structured interviews (Johnson, Onwuegbuzie, Tucker & Icenogle, 2014:17).

According to Cohen *et al.* (2018:47), mixed methods and data-gathering techniques could be concurrent or sequential. The researcher employed the ESD approach by first administering the questionnaires, which are followed by qualitative data gathering methods – focus group interviews, photovoice, and semi-structured interviews to achieve the aim of the study (Cohen *et al.*, 2018:32). According to Creswell and Plano Clark (2011:82) in ESD "*quantitative data are usually collected first, followed by qualitative data to explain the quantitative data*", this assertion is also supported by Creswell (2012:535) and validated by Creswell and Plano Clark (2018:231) as a standard procedure for data collection in mixed method approach.

1.8.4 Selection of research participants

The population consists of all adolescents and the stakeholders (principals, counsellors, teachers and parents) in rural secondary schools of Ekiti State, Nigeria. It is coherent with the transformative paradigm and mixed-method design, which addresses the emancipation, inclusion, and participation of research participants and relevant stakeholders (Phelps, 2020:1; MacDonald, 2012:34). It also follows the aim and objective of the study, which is to design a strategy that enhances the learning environment for cyberbullied adolescents in rural ecology.

Using the explanatory sequential mixed-methods approach, a two-phase data collection procedure, quantitative data was first collected and followed by qualitative data. The two strands were executed in a sequence. Though the quantitative data was taken first, the emphasis of the study is on the qualitative strand (Creswell & Plano Clark, 2018:91).

1.8.5 Data analysis

According to Creswell and Plano Clark (2017:29-30), data analysis in mixed methods research consists of analysing the quantitative data using quantitative methods and the qualitative data using qualitative methods. The following data were analysed for this study: survey questionnaires, focus groups, and semi-structured interviews. Firstly, data collected from the questionnaire were analysed using Statistical Package for the Social Sciences (SPSS) version 26. SPSS is a multi-dimensional statistical tool used to analyse descriptive and inferential data (Brace, Snelgar & Kemp, 2012:3; Landau & Everett, 2003:11).

Consequently, the focus group and the semi-structured interviews are analysed using thematic analysis. According to Nowell, Norris, White and Moules (2017:4) and Braun and Clarke (2006:97), thematic analysis is an analytical process of identifying, arranging, and offering insight into patterns of meaning across a dataset. It facilitates the identification of themes, trends, and common issues recurring in a given discussion. Its flexible nature makes it suitable for semi-structured interviews. In line with the participatory visual method approach (Cohen *et al.*, 2018:630), data generated from the photovoice sessions are jointly analysed by the researcher and the participants using “SHOWeD Mnemonic” procedures (Witkowski, Matiz Reyes & Padilla, 2021:225; Capous-Desyllas & Bromfield, 2018:4).

1.9 VALUE OF THE RESEARCH

This study is expected to benefit the stakeholders in society. These include the parents, guardians, teachers, Non-Governmental Organizations (NGOs), educators, policymakers, communities, and Government Agencies that will find the result helpful. In addition, the findings' results will be significant to students, especially the growing population of Nigerian adolescents.

Generally, the study's outcome will equally contribute to existing knowledge by developing a strategy to enhance the learning environment for cyberbullied adolescents living in rural communities.

1.10 ETHICAL CONSIDERATIONS

According to Dube (2016:10), ethical clearance is needed to protect the participants from unforeseen harm. The research was approved by the University of the Free State (UFS) Ethics Committee (approval number UFS-HSD2019/1688) and the Ekiti State Ministry of Education, Science, and Technology, Ekiti State, Nigeria. In addition, the consent and confidentiality of participants were taken into consideration.

1.11 LAYOUT OF CHAPTERS

The layout of the thesis is as follows:

Chapter 1: Overview of the study

Introduction, background, problem statement, theoretical frameworks, the research question, aim and objectives of the study, data generation, data analysis, ethical considerations, and the value of the study explained.

Chapter 2: Review of related literature

In this chapter, the literature is broadly categorised into three sections. Firstly, cyberbullying was conceptualised under history, prevalence, nature, and forms. Also, the concepts of adolescence and cyberbullying were examined, and the consequences of cyberbullying and its impact on enabling learning environments were discussed.

In this chapter, the literature is broadly categorised into three sections. Firstly, cyberbullying was conceptualised under history, prevalence, nature, and forms. Also, the concepts of adolescence and cyberbullying were examined, and cyberbullying and enabling learning environments were discussed.

Chapter 3: Theoretical Framework

The presentation of the assumptions, justification and application of the study's theoretical framework.

Chapter 4: Research Methodology

The chapter is delineated into two phases, I and II. The first phase was quantitative, while the second was a qualitative study. It covers the research design, paradigm, discussion of the research philosophy, selection of research participants, data collection process, and the procedure for data analysis.

Chapter 5: Presentation of Research Findings, analysis and interpretation

The results of the research findings are presented. The quantitative and qualitative findings are offered in a sequence. First, the survey questionnaire results in the quantitative phase, followed by the presentation and interpretation of the photovoice, focus group and semi-structured data in the qualitative phase.

Chapter 6: Discussion of Research Findings, Conclusions and Recommendations

The quantitative and qualitative findings of the studies are discussed and triangulated (integrated discussion). Conclusions are drawn from the study, and recommendations are suggested.

Chapter 7: The chapter presented the strategy designation to enhance the learning environment of cyberbullied adolescents, the study's implications, the contribution to knowledge and the synopsis.

1.12 CONCLUSION

This chapter presented the background of the study, the clarification of concepts, the relation between cyberbullying and adolescents, as well as cyberbullying in the rural learning environment. The theoretical framework was based on three theories: Bronfenbrenner's Ecological Systems Theory, Bandura's Social Learning Theory and Erik Erikson's Theory of Psychosocial Development. The study was founded on a transformative research paradigm using a mixed methods approach. The next chapter presents the literature of the study. Broadly, the following will be considered: the history of cyberbullying, its nature, and its forms. Subsequently, adolescence, adolescent development, and the link between adolescents, the internet and cyberbullying will be deliberated. In addition, the factors contributing to cyberbullying and the consequences are explored.

CHAPTER 2

CYBERBULLYING, ADOLESCENCE AND THE LEARNING ENVIRONMENT

2.1 INTRODUCTION

Chapter one provided an overview of the study's background. This chapter delves into the history of cyberbullying, examining how it originates and develops based on empirical studies, journal articles, textbooks, and online resources. Furthermore, it investigates the prevalence of cyberbullying across different countries, reviews its distinctive characteristics, and elucidates the various forms it takes, all while connecting these elements to the study's objectives. Additionally, the chapter addresses the development of adolescents, the factors that contribute to cyberbullying, and the consequences it has on the learning environment. The final section expounds upon the incidence of cyberbullying in rural learning environments and proposes strategies for improving the learning environment for adolescents who have been cyberbullied.

2.2 HISTORY OF CYBERBULLYING ACROSS THE WORLD

Studies on school bullying are dated back to the 1970s when Dan Olweus, considered the forerunner of the anti-bullying campaign in the United States of America and across the world, published his first book, “Aggression in Schools: Bullies and Whipping Boys” in 1973 (Limber, Breivik & Smith, 2021:1; Canty *et al.*, 2016:49; Hendricks, Lumadue & Waller, 2012:3). Olweus wrote extensively about bullying and advocated for the establishment of the prevention policy in schools (Persson *et al.*, 2018:728; Hinduja & Patchin, 2014:5). However, cyberbullying, also known as online bullying, became prevalent among adolescents when access to internet services appeared to be widespread across the globe, in homes, schools, and public places (Williamson, Eynon, & Potter, 2020:107; Kota, Schoohs, Benson & Moreno, 2014:550). As the world becomes connected through the internet, cyberbullying seems to rise among youths, adolescents, and children (Donnelly, Han, Song, & Song, 2019:2; Alim, 2016:84). The history of cyberbullying seems difficult to trace, as scholars reported different time frames, which is because countries'

accessibility to the world wide web (www) differs from geographical locations, nations, states, and places (Giumetti & Kowalski, 2022:1). However, it is reported that cyberbullying began to gain some attention in the early 1990s when the use of personal computers (PCs) became prevalent in the United States of America (Allanson, Lester & Notar, 2015:35). The era was followed by the advent of the Global System of Communication (GSM) in the late 1990s, which led to the introduction of social media platforms among young and older adults. The upsurge in internet networks increases the cases of cyberbullying globally (Kee, Al-Anesi, & Al-Anesi, 2022:11; Hendricks *et al.*,2012:3). The arrival of the internet shifted stakeholders' focus from physical bullying to cyberbullying (Cohen-Almagor, 2017:919; Moreno, 2014:500). Though physical bullying has not been eradicated, the internet created a medium to perpetuate bullying without physical presence, which made cyberbullying dangerous and of great concern to teachers, parents, adolescents, and other stakeholders (Akrim & Sulasmi, 2020:324; Hinduja & Patchin, 2013:10). Through the spread of GSM around the world, several children and adolescents do have access to computers, e-notebooks, note pads, smartphones, and can network on various social media platforms, websites, and applications (Ophir, Rosenberg, Lipshits-Braziler & Amichai-Hamburger, 2020:125; Donegan 2012:34). These acts exposed adolescents to online harassment and made them vulnerable to virtual assaults in the learning environment – homes and schools inclusive (Van Hee, *et al.*,2018:2). The early years of the 2000s resulted in the launch of two major Social Networking Sites (SNS); firstly, it was 2004 (Kuss, & Griffiths, 2017:1; Edosomwan, *et al.*, 2011:82). The emergence of these two SNS brought a massive change, a new trend to social networking including millions of people connect across the globe and socialise. In 2006, Facebook became the leading social media platform in the world (Starinsky, 2021:657; McIntyre, 2014:6). However, despite the positive value SNSs brought to people, they turned out to be channels of cyberbullying among adolescents and youths in schools and households (Krešić Ćorić & Kaštelan, 2020:270; Wiederhold & Riva, 2012:212).

In the United States of America (USA), cyberbullying became a national issue after a series of suicidal incidents claimed the lives of teenagers across different schools in the mid-2000s as a result of cyber-rated suicide (Ijachi, 2019:6; Donegan, 2012:37). Repeated cases of cyberbullying made States in the USA pass anti-bullying bills, enact anti-bully policies, and put measures in place to combat both traditional and cyberbullying. Despite this, cyberbullying prevalence has not diminished in the country. The findings of Li *et al.* (2020:1) and Hamm *et al.* (2015:771) suggested

that cyberbullying prevalence has not declined. Today, cyberbullying has spread through the world, Northern America, Europe, far Asia, the Middle East, and the African continent (Hossain, 2023:176; Chisholm, 2014:7; Ortega *et al.*, 2012:344; Nocentini *et al.*, 2010:129).

2.2.1 Cyberbullying in Africa

In Africa, Nigeria, South Africa, Egypt, Morocco, Algeria, and Tunisia are reported to be prominent internet users. Among these countries, South Africa, Morocco, and Tunisia have the highest prevalence of cyberbullying activities (Odusanya & Adetutu, 2020:307; Ephraim, 2013:279). Similarly, it is stated that many African countries do not have cyber safety measures in schools to protect learners. This assertion is confirmed in a survey involving ten selected African countries, including Ghana, Uganda, Tunisia, Sudan, Rwanda, Egypt, Mauritius, Morocco, Kenya, and Cameroon. Tunisia, Rwanda, Ghana and Mauritius have safety laws protecting the activities of adolescents on the internet, while countries like Mali, Nigeria, Togo, and Botswana promote data protection regulations (Daigle, 2021:6-8). Specifically, South African adolescents are considered one of the leading users of Social Networking (Shava & Chinyamurindi, 2018:1; Ephraim, 2013:276). The media has persistently reported cases of cyberbullying in the learning environment, while there are few empirical studies on the prevalence. However, findings indicated that it gained attention after 2010 and soon spread across the provinces. In a comparative study among six nations of Zambia, Namibia, Uganda, Tanzania, Ethiopia, and Cameroon, South African youths are the leading operators of mobile phone users and cyber aggression behaviours (Ngwainmbi, 2019:50; Popovac & Leoschut, 2012:1). The report is validated by Maree (2017:963) with emphasis that cyberbullying could endanger the learning spaces (Smith, 2015:1076).

According to Nwosu *et al.* (2018:45), the Nigerian state gained access to the internet and social networking sites in 1999. In the year 2000, internet access and coverage increased from 0.1% to 46.1% in 2016; however, statistics illustrate that cyberbullying has not been extensively studied in the country, primarily how it affects the learning environment of learners (Nwosu *et al.*, 2018:43; Nwifo & Nwoke, 2018:167). Despite the spread of cyberbullying among Nigerian adolescents in learning environments, there is no anti-bully law, and neither does the country have any measures or policies in place to combat cyberbullying in schools and protect the growing adolescent population (Balogun, Awodele, Bello, Oyekunle & Balogun, 2017:103).

2.2.2 Nature of cyberbullying

Scholars worldwide have attempted to define cyberbullying; however, there seems to be no universal definition (Akrim & Sulasmi, 2020:324; Linne & Angilletta, 2016:289). This variation could be traced to different cultural backgrounds and geographical locations, as countries use different terminologies to represent the phenomenon. Some common terms are cyber aggression, online bullying, and cyber harassment (Piccoli *et al.*, 2020:273; Aboujaoude, Savage, Starcevic, & Salame, 2015:11).

As explained earlier in chapter one, cyberbullying is defined as online aggression perpetrated intentionally through an electronic medium with a motive to hurt a person or group of persons (Longobardi *et al.*, 2017:254). It is the use of phones or electronic devices to harass, intimidate, embarrass, and oppress a target person or group (Akrim & Sulasmi, 2020:324; Smith, 2015:178). A critical review of the nature of traditional bullying and cyberbullying indicates that both involve harassment, aggression, oppression, power imbalance, intentionality, and repeated occurrence. However, cyberbullying differs from traditional bullying, comprising electronic devices, anonymity, virtuality, and virality (Cortés *et al.*, 2019:109; Apostolides, 2017:3; Hinduja & Patchin, 2014:46).

2.2.2.1 Anonymity

One of the main differences between traditional bullying and bullying perpetrated on the internet is the anonymous nature of cyberbullying, which makes internet bullies faceless, unseen and untouchable (Krešić Ćorić & Kaštelan, 2020:269). Today, it is easy for anyone to register and create fake accounts on social media to harass and threaten a victim (Apostolides, 2017:3). The message is simple, "I can see you and follow you everywhere you go, but you can't see me. I am invisible while you are visible". The internet seems to be the best place for aggressors to hurt innocent victims (Newlin, Addam & Harry, 2019:329). Barlett, Gentile and Chew (2016:172) opined that anonymity should not be taken from a negative perspective but rather from a positive sense because it removes the restriction effect from expression. Adolescents who can't face a crowd or express themselves publicly can hide anonymously and bully their classmates. In support, Kaluzeviciute (2020:303) and Kwan and Skoric (2013:18) concur that the anonymous nature of the internet created what psychologists refer to as the disinhibition effect, that is, eliminates

restrictions in communication, but this has also made adolescents vulnerable to cyber abuse and online victimisation (Giumetti & Kowalski, 2022:3).

2.2.2.2 Virality

The negative impact of cyberbullying cannot be underrated (Krešić Ćorić & Kaštelan, 2020:270). According to Patchin and Hinduja (2013:163), every message posted online can go viral and could spread within minutes on the internet. A statement posted on social media can reach millions of people in minutes (Nixon, 2014:143). The viral nature of the internet should not be underestimated; when a message is posted on one platform, it may be shared on multiple devices and media. Sometimes, when the initial or original post is deleted, thousands or millions of people download and share the content on different devices. Some adolescents have committed suicide when they found out their private videos and pictures were threading on the internet because they were circulated and shared online (Farhangpour *et al.*, 2019:5; Baruah *et al.*, 2017:141).

2.2.2.3 Virtuality

Cyberbullying thrives in the virtual world, unlike traditional bullying that occurs face-to-face. Virtual reality is a computer-simulated environment where images are created as a real-life experience (Brivio *et al.*, 2021:303). A frightening picture posted online could harm adolescents' mental health and studies (Cassum & Gul, 2017:108-109). Adolescents view the virtual reality of the internet as an alternative medium of connecting to their friends and peers and does not necessarily replace physical contact. In this sense, virtual reality is just an extension of the real world where cyberbullying thrives; by implication, more adolescents are exposed to harassment (Shamri Zeevi, 2021:2; Chisholm, 2014:77).

2.2.3 Forms of cyberbullying

Some online activities appear to be shared among people across the world, most especially among youths and adolescents. Studies have shown that a significant number of adolescents are internet addicted as they continuously stay online in search of new information (Qudah *et al.*, 2019:628; Shek, Keung Ma & Sun, 2011:2245). They are inquisitive and always want to know more about the world around them. Adolescents' curious and adventurous nature has endangered some, as they enjoy exploring the world around them (Chawla, 2020:619). Different types or forms of cyberbullying activities have also been observed. The terms form or types have been used

interchangeably as there is no consensus on using "types or forms" of cyberbullying (Wagner, 2019:311). While some scholars prefer types, a good number go with forms of cyberbullying. The differences bother on the nature and the complexity of cyberbullying. However, for consistency's sake, we should stick with forms of cyberbullying. The list is not exclusive; however, these are the frequently engaged forms of cyberbullying identified among teeming adolescents: cyberstalking, denigration, flaming, Impersonation or masquerading, outing, Trickery, and exclusion (Macaulay, Betts, Stiller, & Kellezi, 2022:4; Chisholm, 2014:79).

2.2.3.1 Cyberstalking

Cyberstalking refers to continuously or repeatedly sending threatening messages such as audio, video, or graphic content (Powell, Scott, & Henry, 2020:199). In recent times, cyberstalking seems to be on the rise, and this could be anyone, known or unknown; it involves tracking, monitoring, and shadowing someone persistently online with the intent to cause harm (Peter & Petermann, 2018:350; Chisholm, 2014:79; Lowry, Zhang, Wang, Wu & Siponen, 2013:5).

2.2.3.2 Impersonation

Another name for Impersonation is masquerading, which simply means camouflaging to be someone else (Yeşilyurt, Arslan & Arslan, 2021:19). It is pretending to be someone else and using their profile to send malicious messages with the intention to hurt (Saladino, Eleuteri, Verrastro, & Petruccelli, 2020:2). In many cases, hackers are found to impersonate, steal someone's identity information, and even threaten to blackmail their target victims (Kambellari, 2017:1).

Other forms of cyberbullying, according to Abaido (2020:410), Wagner (2019:311), Chisholm (2014:79), Akbulut and Çuhadar (2011:67), Popović-Ćitić, Djurić and Cvetković (2011:414), and Feinberg and Robey (2009:22) include:

- **Flaming** is the use of aggressive language to cause harm to someone. Flaming could also be the use of harsh or violent language online.
- **Denigration** is the spreading of rumours and gossip about someone. Denigration could also send fake or fabricated news intending to harm and de-human someone's personality.
- **Exclusion** is the deliberate and unlawful removal of someone from a group.
- **Outing and Trickery** involve beguiling someone to reveal sensitive information, which is then used to harass such persons.

2.3 ADOLESCENTS AND CYBERBULLYING

2.3.1 Adolescence

Adolescence is a period of transition from childhood to adulthood (Goodway *et al.*, 2019:300). Psychologists believe it involves a series of physical, psychological, and emotional changes and challenges (Jun, 2020:6; Curtis, 2015:1). Experts state it involves developmental stages, which should be accomplished. One of the prominent attributes during this stage is the urge to socialise and mingle with friends; this could be one of the reasons adolescents find solace in social media platforms (Newman & Newman, 2017:43; Swartz, 2012:208). However, adolescents have no universally acceptable age brackets because age differs across countries, cultures, and individuals. According to Sawyer *et al.* (2018:223), both the United Nations (U.N.) and the World Health Organization (WHO) differ in the age range of adolescence. In some countries, it is between the ages of 10 and 19. In many developed countries, it is between 10 and 16, while in others, it is between 12 and 18. The controversy is that while a 10-year-old is referred to as a child, a 19-year-old is called an adult in another, making the age range debatable. Adolescents are exposed to challenges; some mature earlier than their counterparts, and others experience delayed biological growth (Newman & Newman, 2020:184; Casey, Duhoux & Cohen, 2010:749). Those experiencing early growth are exposed to various psychological thoughts; they just can't comprehend why their bodies are changing rapidly more than their peers. While the late mature seem to be self-doubts, they must understand why they are not developing as expected. According to Erikson's theory of identity formation, adolescence is a crisis period, a turbulent time in the lives of each adolescent; it is often referred to as the make or mar stage (Miller, Wiggins, & Feather, 2020:415; Fauziah *et al.*, 2012:341; Moshman, 2011:120). Adolescents face a battle of identity versus role confusion, attempt to find an answer to their identity crisis, many engage, experiment, and indulge in substance abuse, which is detrimental to their well-being (Oduor, Omuteche, & Yenjela, 2022:48; Kuhn, 2015:61; Shek *et al.*, 2011:2244). However, adolescents with the right environment and support will get out of this stage victorious, but those who are not may experience uncertainty in future endeavours (WHO, 2019; Ryan & Patrick, 2001:439). According to the United States Department of Health and Human Services (2020), adolescence is a stormy period

of tremendous physical, cognitive, emotional, social, and moral growth when adolescents mature fully.

2.3.2 Adolescent development

Studies have shown that adolescents experience changes coupled with pressure from home, school and their immediate environment (Magson *et al.*, 2021:44). The inability to cope with these stressors could lead to erratic decisions (Altena *et al.*, 2020:1; Krapić, Hudek-Knežević & Kardum, 2015:562). The developmental process covers every aspect of the adolescent, from physical, cognitive, emotional, social, and moral domains. Below is a link between cyberbullying and different aspects of adolescents' development.

2.3.2.1 Cyberbullying and physical development of adolescents

Noticeable in physical development is a rapid growth spurt and evidence of both primary and secondary sexual characteristics. Physical development comes with certain features, which include the transition to puberty. Puberty, a stage in adolescence, is when sex hormones are developed rapidly (Lucaccioni, *et al.*, 2020:2, Hazen, Schlozman & Beresin, 2008:162). It is important to note that adolescents' physical growth differs and also varies across genders. Female adolescents mature faster in their early adolescence, while their male counterparts seem to grow slowly (Sawyer *et al.*, 2018:223). Also, cyberbullying has been associated with substance abuse and violent behaviours in adolescents; it is reported that substance abuse could distort adolescents' physical well-being and interfere with the function of the brain (Lee, Hong, Resko & Tripodi, 2018:12; Kuhn, 2015:55; Litwiller & Brausch, 2013:675).

2.3.2.2 Cyberbullying and cognitive development of adolescents

Cognitive development entails the brain development process (Girgis, Lee, Goodarzi, & Ditterich, 2018:2). It is a critical and thoughts provoking stage when adolescents ask questions, but most can't find answers because parents and caregivers don't have answers (McLoughlin, Lagopoulos, & Hermens, 2020:2; Nixon, 2014:144). It is characterised by increased reasoning ability, capacity to make practical suggestions, and display of valuable thoughts (Nagata *et al.*, 2022:1287). Adolescent cognitive development involves adolescents moving from concrete to abstract thinking. Hence, it is essential to stop cyberbullying because it interferes with adolescents' growth process (Orue & Calvete, 2019:2315).

2.3.2.3 Cyberbullying and social development of adolescents

Adolescents' social development depends on the environment; a friendly atmosphere promotes and enhances learning, but a hostile environment affects adolescents' social development (Bell, 2020:103). Adolescents' social development involves shifting relationships from parental dependence to seeking peer and colleague approval (Geldard, Geldard & Foo, 2019:17; Kenny, Dooley, & Fitzgerald, 2013:351). In the modern age, the internet and social media seem to provide an opportunity to adolescents through the virtual world. However, adolescents are exposed to online threats and have become victims of online bullying as they interact on the internet (Hood & Duffy, 2018:103). Social development is built on trust and confidence; in many cases, adolescents do away with their privacy when they find new persons (Rizzi, Pigeon, Rony & Fort-Talabard, 2020:4). During this stage, adolescents can develop independent relationships away from their parents or caregivers and try forming new friendships with their colleagues (Xin, Li, & Liu, 2019:1; Sekopane, 2013:11).

2.3.2.4 Cyberbullying and emotional development of adolescents

According to Méndez *et al.* (2019:2), there is a direct link between emotional behaviours and cyberbullying activities. Adolescents' emotional development involves the expression of feelings and affections (Ferreira, Reis-Jorge & Batalha, 2021:51). Three distinct characteristics depict emotional development; firstly, the emotional state refers to the adolescents' actual internal experience and the emotional transformations they have undergone. This is followed by emotional experience, which entails individual clarification of their behaviours (Galla *et al.*, 2020:2). Lastly, emotional expression, which connotes the reactions that ensue as a result of emotional states and expression (Denham, 2019:493; Rosenblum & Lewis, 2003:270). Though emotional development differs in adolescents, it is, therefore, vital to know that cyberbullying could endanger the emotional development of adolescents (Eweida, Hamad, Abdo & Rashwan, 2021:100).

2.3.2.5 Cyberbullying and moral development of adolescents

Moral development is an essential aspect of adolescents' development; at this stage, adolescents tend to make independent decisions, internalise daily life experiences, develop moral values, and adhere to instructions if the environment is right (Lo Cricchio *et al.*, 2021:272; Paciello, Fida, Tramontano, Cole & Cerniglia, 2013:191). Different studies have linked cyberbullying to antisocial behaviours, with a negative impact on adolescent's moral development; hence, cyberbullying obstructs the moral development of adolescent children and should be eradicated from the learning environment (Luo, Zhang, Yang & Huang, 2022:2; Wang *et al.*, 2016:245; Den Hamer, Konijn & Keijer, 2014).

2.3.3 Adolescents, the internet, and cyberbullying

Adolescents' unrestricted internet access has been associated with the prevalence of cyberbullying among adolescents (Uludasdemir & Kucuk, 2019:85; Notar, Padgett & Roden, 2013:1). The presence of cyberbullying in the learning environment creates fear, panic, and power imbalance (Giumetti & Kowalski, 2022:1; Cuadrado-Gordillo & Fernández-Antelo, 2016:654; Wiederhold & Riva, 2012:214) underscoring the need for this study to design a strategy that enhances the enabling learning environment of cyberbullied adolescents in rural ecology (Abaido, 2020:409; Kavuk-Kalender & Keser, 2018:29; Ševčíková, Šmahel & Otavová, 2012:323).

Furthermore, studies have shown a high prevalence of cyber-victimization and cyber-harassment among adolescents, with psychosocial factors such as parental education background, religion, grade, and internet usage being identified as predictors of cyberbullying behaviour (Apan & Gündüz, 2023:90; Ranjith, Vranda, & Kishore, 2023:721; Liu, Guo, Weissman & Liu, 2021:12). Additionally, parental internet attitudes have been found to have different effects on the level of cyber victimization, with laissez-faire attitudes being associated with higher levels of victimization (Nogueira-López, Rial-Boubeta, Guadix-García, Villanueva-Blasco & Billieux, 2023:1). The wrong use of the internet and online gaming have also been found to be prevalent including mobile phone use in class (Eden, Heiman, Olenik-Shemesh & Yablon, 2023:1368).

2.3.4 Factors contributing to cyberbullying

2.3.4.1 Smartphone abuse

Singh, Chauhan and Kumar (2020:96) stated that in today's digital world, with a smartphone, a teenager can do almost anything in the comfort of their bedroom. Smartphones are high-tech innovations with multi-tasking capacities. Aside from just calling, receiving, and texting, smartphones are tools of modern innovations. Adolescents can download applications, play music, take photos, live record videos, and send them online (Qudah *et al.*, 2019:628). Smartphones could enhance teaching and learning; they can be used for virtual classes, webinars, online tutorials, and conferences. It is a mini office in your palm that can be used to enhance teaching and learning (Newlin *et al.*, 2019:330). Today's mobile device is one of the main channels through which adolescents bully others; despite the benefits smartphones offer, it has turned into devices for online bullying among teenagers (Singh *et al.*, 2020:96; Venkataraghavan, 2015:21). Adolescents and smartphones seem inseparable; mobile phones have been incorporated into their daily lives and seen as a medium of socialising and connecting with friends in school and at home (Qudah *et al.*, 2019:628; Holfeld & Grabe, 2012:396). Smartphones have also become a tool for cyberbullying among teenagers (Castile & Harris, 2014:59). If adolescents are correctly guided and monitored, smartphones could enhance learning and improve teacher-learner experiences, which, I believe, would make learning more interactive (Darko-Adjei, 2019:30).

2.3.4.2 Unregulated social media factor

Social media are online platforms for networking with friends, families, and sometimes with business partners. Today, social media have become popular among adolescents and young adults as a medium of socialising and connecting with peers (Ophir, Rosenberg, Lipshits-Braziler & Amichai-Hamburger, 2020:125; Wiederhold & Riva, 2012:212). These platforms include Social Networking Sites (SNS) and Instant Messaging Applications; the commonest are Facebook, Twitter, Instagram, Snapchat, WhatsApp, and Telegram, to mention a few (Gentina, Chen, & Yang, 2021:652; Vazsonyi, Jiskrova, Kelley & Ksinan, 2016:89).

Through social networking sites, adolescents can remain connected online, spending valuable time with friends, families and acquaintances (Zhong, Zheng, Huang, Mo, Gong, Li & Huang, 2021:11). However, because many of the sites offer free registration, several unscrupulous elements have

hidden under this, opening multiple fake accounts that they use to perpetrate antisocial behaviours like cyberbullying, exert aggression, and oppress their victims (Barlett, DeWitt, Maronna, & Johnson, 2018:148; Skosana,2016:20). Adolescents should not be left unguarded on social media, as many unknowingly divulge sensitive and personal information online, which blackmailers eventually use against them. Today, cyberbullying occurs almost everywhere, on the go, via phone, or on the internet; every medium and platform seem vulnerable (Baraldo & Chetty, 2018:20; Görzig & Frumkin, 2013:2).

2.3.4.3 Peer Influence

Peer influence seems to be one of the most decisive contributors to cyberbullying (Ibrahim & Vi, 2021:5). As long there are friends, colleagues, and classmates supporting and promoting cyberbullying, it might take much work to eradicate. Adolescents influence each other; in many instances, bullies often act in groups and jointly harass their victims (Piccoli *et al.*, 2020:262; Cowie, 2014:26; Chisholm, 2014:81). Since adolescents spend a reasonable amount of time with friends offline and online, they primarily influence their decisions. This includes the need for group belongingness, social acceptance, and peer approval; these factors play a vital role in adolescents' lives and decision-making processes (Romera, Garcia-Fernandez & Ortega-Ruiz, 2016:72).

2.3.4.4 Parental leadership style

Zhong *et al.* (2021:3) opined that cyberbullying is associated with a lack of parental support and supervision and support. In support, Caivano, Leduc and Talwar (2020:10) affirmed that most parents are not aware of their children's cyberbullying experience. Hence, Makri-Botsari and Karagianni (2014:3241) emphasised the importance of parental leadership styles in curbing cyberbullying. The findings revealed that adolescents with authoritative parents compared with permissive and carefree often communicate better with parents. Also, adolescents who have authoritative parents parent seem to display less aggressive behaviours, unlike the authoritarian. However, they disputed that parents' educational backgrounds do not contribute to cyberbullying behaviours in adolescents. These findings, therefore, connote that parents' leadership style is a strong determinant to consider dipping cyberbullying.

In proffering a solution to cyberbullying, Robinson (2012:6) suggested adequate monitoring of adolescents, the sites they visited, and the time spent online should be closely checked. Also, he

went further to recommend effective communication between parents and adolescents. Firstly, it is the readiness of the child to communicate with the parents or caregivers. Prompt response from the parents will go a long way in tackling cyberbullying before it gets out of control (Robinson, 2012:7). However, Robinson (2012:5) calls for caution, arguing that excessive monitoring could be detrimental to adolescent mental health and may hinder them from being self-dependent.

2.3.4.5 Inadequate awareness

Scholars argued that some parents, teachers, and community members are not fully aware of the concepts of cyberbullying (Kavuk-Kalender & Keser, 2018:29; Asanan *et al.*, 2017:2). Also, scientific studies suggested that the level of awareness is far below average, though, some stakeholders are conversant and familiar with traditional bullying, which could be a result of the tendency to inflict physical injuries (Baruah *et al.*, 2017:140). This assertion is affirmed by Campbell, Whiteford and Hooijer (2019:396), stating that some parents and teachers are uninformed regarding cyberbullying, calling for public awareness regarding the concept and nature of cyberbullying and the need for an effective campaign strategy to stem the tide of cyberbullying among adolescents (Krešić Ćorić & Kaštelan, 2020:271; Makri-Botsari & Karagianni, 2014:3243).

2.3.4.6 Non-Reporting

Most victims of cyberbullying do not report their encounters to adults or caregivers (Abaido, 2020:415). The increasing number of non-disclosures of cyberbullying incidents calls for concern and should be investigated (Connolly, 2017:157; Royne *et al.*, 2017:33; Notar *et al.*, 2013:1). It is worrisome that victims of cyberbullying prefer to keep quiet when abused or report when it is too late; this could be responsible for the cybercrime cases recorded worldwide. However, Connolly and Connolly (2014:383) stated that it is not enough to report a cyberbullying case but to inform the right person. In this instance, a trusted adult, be it a caregiver or parent with the interest of the kid in the heart, should be informed on time; this is considered necessary in curbing the menace. Since the number of non-reporting keeps increasing, victims must report cyberbullying because non-reporting would encourage perpetrators to continue (Royne, Rademaker & Kelly, 2017:33).

2.3.4.7 Salient factors contributing to cyberbullying in rural learning environments

The following salient factors are identified as contributing to cyberbullying incidences among adolescents in rural learning environments. These include a lack of anti-bully laws and policies,

poverty, inadequate social amenities and discrimination. The prevalence of cyberbullying among adolescents in rural learning environments can be attributed to various contributing factors. One salient factor is the lack of anti-bullying laws and policies in schools, which creates an environment where cyberbullying can thrive (Samara, Nascimento, Asam, Smith, Hammuda, Morsi & Al-Muhannadi, 2020:10; Seelman & Walker, 2018:2301). Though legal provisions exist safeguarding Nigerian minors' welfare, legislation specifically addressing cyberbullying is apparent (Adebisi, Jerry, Rasaki & Igwe, 2014:455; Nwosu et al., 2018:46).

Additionally, poverty and inadequate social amenities in rural areas also seem to contribute to the occurrence of cyberbullying incidents (Baird *et al.* 2021:1163). Specifically, discrimination based on factors such as social identity, race, age, sexual orientation, ethnicity, gender, and social status also plays a role in cyberbullying victimisation (Bozdağ, 2020:721; Relia, Cook & Chunara, 2019:418; Bitto Urbanova *et al.*, 2020:2). These factors highlight the need for comprehensive interventions and prevention policies to address cyberbullying in rural learning environments. Implementing anti-bullying laws and policies, providing resources to combat poverty, improving social amenities, and promoting inclusivity and acceptance can help mitigate the prevalence of cyberbullying among adolescents in rural areas (Wagner, 2019:309).

2.4 CONSEQUENCES OF CYBERBULLYING

Different studies have shown that the consequence of cyberbullying is highly detrimental and damaging to adolescents' mental health. For this study, mental health was examined from a psychological and emotional approach, and lastly, a consequence of the learning environment of cyberbullied adolescents was discussed.

2.4.1 The consequence of cyberbullying on adolescents' mental health

Cyberbullying is a stressor; victims reported being under undue stress, traumatised, and emotionally disturbed. Cyberbullying is more harmful compared to traditional bullying because of its anonymous nature, which instils fear and panic in victims (Zhu *et al.*, 2021:2; Vaughn, 2020:27). Studies also indicated that adolescents respond and react differently to different forms of cyberbullying, i.e., the form of cyberbullying a teenager is exposed to is a determinant of the corresponding consequence and reactions that follow (Nixon, 2014:145). An understanding of this subject and a further probe into how adolescents react to different types of cyber victimization, I believe, would help to stem cyberbullying behaviours among the teeming adolescents. According

to the findings, adolescents cyberbullied via text or phone call may react differently than those cyberbullied through videos. The study results showed that motion pictures are more devastating than just photos.

Other mental consequences of cyberbullying include loneliness, anxiety, and thoughts of self-pity (Wagner, 2019:307). It, therefore, connotes that cyberbullying endangers learning environments. Similarly, Gualdo *et al.* (2015:229) asserted that cyberbullying poses a lot of psychological consequences for both cyberbullies and their victims. Baruah *et al.* (2017:141) opined that victims of cyberbullying display aggression, fear, panic, isolation, and emotional imbalance. However, the extent of the emotional damage victims experience is unclear (Giumetti & Kowalski, 2022:3; Hamm *et al.*, 2015:770). These findings also confirm that cyberbullying makes learners unsafe in the learning space. Chandran *et al.* (2018:588) enumerated some mental health problems associated with cyberbullying, including insecurity, isolation, panic, poor academic performance, despair, and suicidal ideation. These further establish that cyberbullying thus endangers the learners and the learning environments.

2.4.2 The consequence of cyberbullying on the learning environment

Every child's learning environment is paramount to parents, teachers, and stakeholders. As explained earlier in the background of the study, the learning environment consists of the learner's physical and psychological environment (Aldridge, McChesney & Afari, 2018: 153; Odeh *et al.*, 2015:4916). Farhangpour *et al.* (2019:3) confirm that lack of concentration is a consequence of cyberbullying in the learning environment. Lack of attention at school or home is unhealthy for learning spaces, as both are learning environments; it is also important to note that the home is a place for assignments, reading, and preparation for the next class (Ibem, Owoseni, & Alagbe, 2017:6275). Therefore, concentration is crucial to learning and for learners, either at school or home, without which the goal of teaching and learning may not be achieved (Kapur, 2018:575). Also pointed out was absenteeism; according to some reports, this has made many adolescents skip school because of the perceived shame accompanying cyberbullying (Jiménez, 2019:170). The last point raised was those fewer friends, which they say might make fellow teenagers consciously or unconsciously withdraw from the victims, which does not help the learning environment as all students need to be warmly received and feel safe to maximise the learning

experience. Thus, this affirms cyberbullying as a threat to the enabling learning environment of cyberbullied adolescents (Cuesta Medina, Hennig Manzuoli, Duque & Malfasi, 2020:937).

2.5 CYBERBULLYING AND THE LEARNING ENVIRONMENT

2.5.1 Incidence of cyberbullying in the rural learning environment

Over the years, cyberbullying was generally believed to only occur in metropolitans, towns, and cities. This notion seems to have taken centre stage globally, with little or no attention appearing to be placed on rural communities. Rural communities in the digital age are not left behind, as preliminary studies have shown that cyberbullying also takes place in the rural learning ecology (Mimbi, Nemandona & Mtshazi, 2018:86; Painter, 2014:4). Adolescent learners in rural areas do use mobile phones; some even have smartphones, have access to the internet, and also socialise on social media. Most teenagers have Facebook, Twitter, Blackberry Messenger, and WhatsApp accounts, to mention a few (Farhangpour *et al.*, 2019:4). These facts show that adolescents in rural communities are also exposed to online aggression and assault perpetrated within and outside of the school environment.

Empirical studies validated cyberbullying among adolescents in the rural learning environment, which calls for concern as many rural areas do not have suitable learning environments, are neglected, unequipped, and lack basic infrastructural amenities (Robards, Kang, Steinbeck, Hawke, Jan, Sancu, Liew, Kong & Usherwood, 2019:2).

Reason *et al.* (2016:2333) examined cyberbullying in rural communities in Georgia, the USA, focusing on older adolescents; these findings revealed and confirmed the heavy presence of cyberbullying in a rural high school environment. Their assertions differed slightly from previous studies because they involved the participation of recently graduated older adolescents from rural high schools in Georgia, USA, and this could be a result of being older adolescents who have known the value of being in relationships but could not sustain one then resort to bullying their victims online (Reason *et al.*, 2016:2337).

Similarly, a multi-cultural study conducted by Vazsonyi *et al.* (2016:91) in rural Kentucky, United States, among 708 high school adolescents between the ages of 11-19, also confirmed increased cyberbullying in the rural learning environment. The results also affirmed that adolescents in rural learning ecology have access to the internet, use smartphones, and have social media accounts.

Nevertheless, one could argue this result based on two factors: firstly, a minor percentage of the population community comprised graduates, and one could infer they might have influenced and intermingled with the high school students. Secondly, just like the few pieces of literature on cyberbullying in rural ecology, this report was also a quantitative study. However, this finding differs from Reason *et al.* (2016:2337) because the graduate students were just part of the population community and not participants.

Farhangpour *et al.* (2019:2) investigated the emotional impact of cyberbullying among rural high school students in Limpopo Province, South Africa. The results negatively affect the students' mental and academic performance. By implication, adolescents in rural learning communities have access to internet facilities and engage in cyberbullying behaviours. The study further indicated more than an average number of students perpetrate. Farhangpour *et al.* (2019:3), therefore, opined that cyberbullying tends to disrupt the learning environment of learners, particularly adolescents in rural ecology, and this further justifies the need for this study.

Furthermore, the study reaffirmed that despite the prevailing financial challenges of the rural dwellers, over 90% of the participating adolescents have mobile phones and can access the internet equally. This is shocking evidence as it pointed out that adolescents thrive on socialising and connecting with their counterparts and friends. These revelations confirm Erik Erikson's Adolescent Psychosocial Theory of Development that adolescents constantly search for identity formation and socialization (Farhangpour *et al.*, 2019:6).

According to Nwosu *et al.* (2018:43), there is a high level of cyberbullying activities among Nigerian youths despite reported cases across the country; there is no documentation nor record on the prevalence of cyberbullying in Nigerian schools. In addition, no law is in place to curb adolescent activities, underscoring why this study is important. Nwosu *et al.* (2018:46). Adolescents living in rural Nigeria are not spared. Despite being predominantly ravaged by poverty and socially marginalised, Nigeria's rural areas have subsistence farming as the primary source of income (Odeh *et al.*, 2015:4915; Omobowale, 2014:103). Yet nearly all the remote vicinities have access to the Global System of Mobile Communication (GSM) and do have access to the internet. However, unlike in the cities and urban learning environs, text messaging is the most frequent medium of cyberbullying, followed by anonymous phone calls. This also affirms that cyberbullying can occur through the smallest electronic mediums and not necessarily via

smartphones or social media platforms (Nwosu *et al.*, 2018:45). In Nigeria, there is a shortage of data on cyberbullying behaviours despite reported cases. Most significantly, there are insufficient statistics on the correlation between cyberbullying and mental health challenges (Adeosun, Adegbohun, Jejeloye, Oyekunle, Ogunlowo & Pedro, 2015:2).

2.5.1.1 Prevalence of cyberbullying in rural marginalised environment

Another characteristic of a rural environment is its social marginalization; hence cyberbullying prevalence in rural marginalised environments is a concern due to the inadequate social amenities and underdevelopment in these areas (Baird *et al.*, 2021:1163; Jones, Pincock, Baird, Yadete, & Hamory Hicks, 2020:5). Adolescents in rural environments face social and infrastructural marginalisation, which leads to limited opportunities and resources (Zenic, Taiar, Gilic, Blazevic, Maric, Pojskic & Sekulic, 2020:2; Robards *et al.*, 2019:2). Despite these challenges, cyberbullying is prevalent in rural schools, with reported cases of online harassment and internet access in these communities. It is surprising that even with financial challenges, many adolescents in rural areas have mobile phones and internet access (Farhangpour *et al.*, 2019:2-4). This suggests why socialising and connecting with peers is a priority among these adolescents. Hence, the existence and persistence of cyberbullying in rural learning environments may be influenced by the above-mentioned factors (Reason *et al.*, 2016:2331; Painter, 2014:4).

2.5.2 Enhancing the learning environment of cyberbullied adolescents

An enabling learning environment is a place where there is a positive interaction between learners and their environments and where learners' potential is harnessed, developed and maximised without hindrance or limitation (Ngene, Quadri, Tenebe & Bamigboye, 2018:3505; Özerem & Akkoyunlu, 2015:64). Hence, to maximise the potential of cyberbullied adolescents, there is a need to create an enabling learning environment for the victims of cyberbullying (Fletcher, Everatt, Mackey, & Fickel, 2020:91; Landstedt & Persson, 2014:397).

Pérez-Fuentes, Molero Jurado, Gázquez Linares, Oropesa Ruiz, Márquez, del Mar and Saracosti (2019:11) opined that to enhance the learning environment of cyberbullied adolescents, the internet could be used to improve self-esteem rather than as a tool of harassment. Scholars, including Olweus and Zhong, suggested that schools should enact a phone use policy during school hours which involves strict rules to checkmate the use of cell phones and internet access should be

monitored and guided (Zhong *et al.*, 2021:13; Olweus, 2013:769). In improving the learning environment of adolescents, proactive measures should be put in place, including a teacher-pupil support system without discrimination, cordial and mutual relationships and provision of healthy competition among learners (Kavuk-Kalender & Keser, 2018:26; Ryan & Patrick, 2001:440-442).

2.5.3. Proactive approach to enhance the learning environment of cyberbullied adolescents

Enhancing the learning environment of cyberbullied adolescents can be achieved through various interventions and strategies. One approach is to provide media literacy lessons that go beyond knowledge dissemination and aim to change adolescents' intentions and behaviours (Fitria, Firnanda, Kurniyawan, Dewi & Ati, 2023:252; Cheng, 2019:352). These lessons can be designed using the theory of planned behaviour framework to guide the content development and Kolb's experiential learning cycle framework to create experiential learning experiences (Gabrielli, Rizzi, Carbone & Piras, 2021:2). By engaging adolescents in relevant and interactive lessons; they can develop empathy and knowledge about responsible online behaviour, moving beyond reciting correct answers to intending to behave responsibly online (Singh, Roy, Sinha, Parveen, Sharma & Joshi, 2020:2). Additionally, whole-school interventions that focus on training resilience as a protective factor can also contribute to enhancing the learning environment for cyberbullied adolescents (Chua & Shorey, 2022:133). These interventions can promote mental well-being and provide support for adolescents who experience cyberbullying, fostering a safe and healthy environment in both home and school.

2.6 CONCLUSION

The literature of the study is encapsulated under the history of cyberbullying worldwide and the discussion of the nature and forms of cyberbullying. Also reviewed were adolescence and cyberbullying, adolescent development, and different factors contributing to cyberbullying. Furthermore, the consequences of cyberbullying on adolescents' mental health and the learning environment were examined. The chapter was rounded up with the literature on the learning environment under which the incidences of cyberbullying in the rural learning environment and how to enhance the learning environment of cyberbullied adolescents were explored. The subsequent chapter presents the theoretical framework of the study. Three theories were adopted in support of the key variables of the study.

CHAPTER 3

THEORETICAL FRAMEWORK FOR DESIGNING A STRATEGY TO ENHANCE THE LEARNING ENVIRONMENT OF CYBERBULLIED ADOLESCENTS IN RURAL ECOLOGY

3.1 INTRODUCTION

In the previous chapter, the researcher explained the history, nature and forms of cyberbullying, the concept and development of adolescence, the incidence of cyberbullying and how to enhance the learning environment of cyberbullied adolescents. This chapter adopted three theories to enhance the study: Bronfenbrenner's Ecological Systems Theory, Bandura's Social Learning Theory and Erikson's Psychosocial Theory of Development. The theories address the main variables of the study, namely, learning environment, rural ecology, cyberbullying, and adolescence. Additionally, the theories' assumptions, rationale and application are discussed.

3.2 ASSUMPTIONS AND RATIONALE FOR THE THEORY: BRONFENBRENNER'S ECOLOGICAL SYSTEM THEORY

Bronfenbrenner's Ecological Systems Theory is theorised to enhance cyberbullied adolescents' learning environment in a rural ecology. The components of the theory were introduced in chapter one. This section examines the study's assumptions, justification, rationale, and application.

In chapter two, adolescent development was examined in the context of physical, social, cognitive, emotional and moral development, which is in line with Bronfenbrenner's argument that a child's development should be total, whole and complete (Hawkins, 2019:50). Bronfenbrenner's Ecological System Theory focuses on different ecological systems and how it influences the child's existence and development (Eriksson, Ghazinour & Hammarström, 2018:420).

The ecological system is defined as a nested environment embedded in another setting. Bronfenbrenner described the system as shells or layers nested in each other (Oliveira, Silva, Fernandez, Santos, Caravita & Silva, 2020:3; Rosa & Tudge, 2013:243). Also, the ecological system of adolescents is labelled as a set of Russian dolls, "a matryoshka doll," i.e., a smaller doll

placed in a bigger one, representing a smaller environment embedded inside a more extensive environment, a closer and immediate environment in a distant and larger environment, in which the entire ecosystems are interwoven and cross-related (Peppler, 2017:2).

According to Burns, Warmbold-Brann and Zaslofsky (2015:250), one of the theory's assumptions states that a child does not live-in isolation but within systems. These systems are different environments in which they interact, learn, and socialise. The child's environment should be examined as it plays a significant role in the child's development. Hence, Görzig, Milosevic and Staksrud (2017:1198) opined that bullying should be investigated in the context of growing adolescents' immediate, direct, indirect, social and cultural environments. By implication, the all-inclusive environment of the child should be considered, i.e., the physical and the psychological environments, to eradicate cyberbullying. Since cyberbullying occurs at home, in school environments, and in the adolescents' virtual world, it is imperative to provide an enabling environment for cyberbullied adolescents.

The study focuses on creating an enabling learning environment for cyberbullied adolescents in rural areas; it implies that the components of the environment where the child lives and learns should be made conducive to eradicating cyberbullying. In summary, Bronfenbrenner (1979:16) stated that human development is influenced by its environment, and behaviours result from the interaction between the growing person and the environment.

3.3 APPLICATION OF THE ECOLOGICAL SYSTEMS THEORY

The researcher applied the theoretical lens of Bronfenbrenner's Ecological Systems Theory to underpin the study's aim and objectives. Bronfenbrenner identified four different environments in which a growing adolescent life. Bronfenbrenner (1979:16) stated that human existence and development is influenced by its environment. The components of the environments are classified as the microsystem, mesosystem, exosystem and macrosystem (Saad, Puteh-Behak, Darmi, Harun, Ali & Samah, 2017:527; Ettekal & Mahoney, 2017:230; Geldenhuys & Wevers, 2013:4; Leonard, 2011:990; Johnson, 2010:33). The figure below illustrates the different components of the environment.

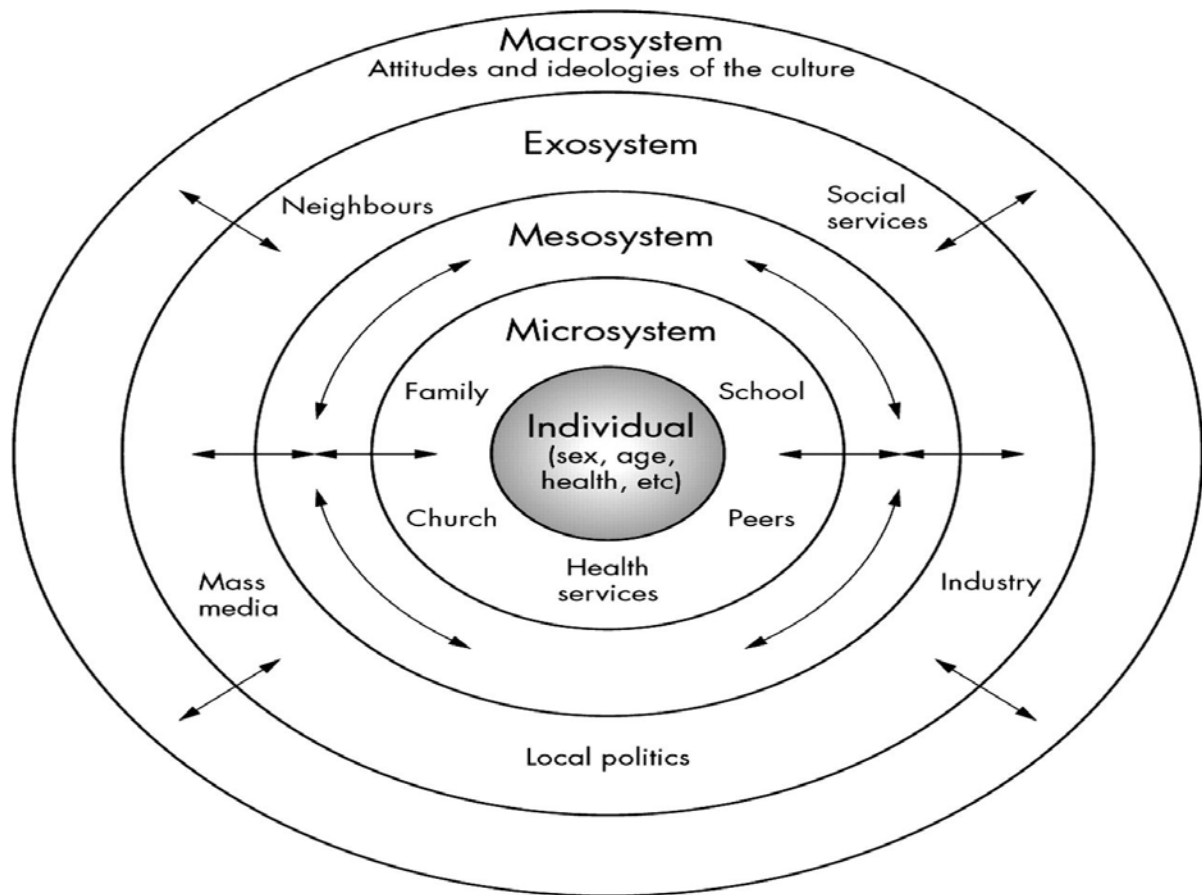


Figure 3.1: Bronfenbrenner's Ecological Systems Theory (Source: Vélez-Agosto et al., 2017:902)

3.3.1 Microsystem

Bronfenbrenner (1979:22) describes the microsystem as a series of events, actions, roles, functions and interactions experienced by a growing individual in a specific environment. From this perspective, an environment is where the developing child interplays and mingles. The activities, roles and functions are considered the "elements or building blocks of the microsystem". The microsystem's characteristics consist of close affinity, the child's interaction with the immediate environment, and direct contact with agents of socialisation (Vélez-Agosto, Soto-Crespo, Vizcarrondo-Opppenheimer, Vega-Molina & García Coll, 2017:902).

Analisah and Indartono (2019:240) and Onwuegbuzie *et al.* (2013:4) listed the components of the immediate environments to include the child's home, peers, classroom, school premises, recreational, religious centres and the neighbourhood. The list of the components is not exclusive;

it involves every component within the immediate environment where the child has direct contact, including human and non-human elements (Christensen, 2016:22).

- **Theoretical application to Microsystem**

The microsystem components are subdivided into human and non-human elements (Zhang, 2018:1765; Johnson, 2010:34). The human components are the child, parents, siblings, peers and other immediate persons within the microsystem (Tudge, Merçon-Vargas, Liang & Payir, 2017:49). The non-human components are the classroom, school environment and non-living elements that the child interacts with, including electronic devices and hardware (Vélez-Agosto *et al.*, 2017:902).

3.3.1.1 Theoretical application to Human components of the microsystem

a) The Child

In the microsystem, the child is positioned at the centre of the ecosystem (Vélez-Agosto *et al.*, 2017:901). The child is described as an “active participant” who partakes in a series of actions within the microsystem (Campos-Gil, Ortega-Andeane & Vargas, 2020:2). The child is also called a “growing person” who is influenced by the happenings in the environments (Julienne, 2019:51; Bronfenbrenner, 1979:21). In this study, the adolescent represents the child at the centre, who is at the receiving end of what transpired within the environment (Campos-Gil *et al.*, 2020:2; Espelage, 2014:258). The environment in this context could either promote or prevent cyberbullying. As the child interacts with the components of the immediate environment, if exposed to bullying at home, such acts could be transmitted to the school or vice versa (Hinduja & Patchin, 2017:53).

One of the reasons the adolescent at the centre of the microsystem is being bullied is linked to demographic biases like age, colour, race, ethnicity, height, and gender (Munongi & Mawila, 2022:4; Espelage, 2014:258). Another similar reason perpetrated is discrimination-based cyberbullying among adolescents (Bitto *et al.* 2020:2). This submission is in agreement with Asanan *et al.* (2017:1) and Corcoran *et al.* (2015:246), who described cyberbullying as oppression, intentional intimidation and discrimination based on physical or social-economic status, class, tribe, nationality, race, skin colour, height, language, religion and intelligence. The adolescent at the centre needs to be supported and given an enabling environment to maximise her potential. In

the microsystem, the developing child directly interacts with parents, guardians, peers, and teachers. The relationship with and among the immediate family is interwoven and could affect adolescent children (Prinsloo *et al.*, 2019:7; Leonard, 2011:990). Hence, the immediate family has a role in curbing cyberbullying by creating an enabling learning environment for growing adolescents.

b) The Parents

Cyberbullying thrives where parental monitoring is minimal or in the absence of supervised adults (Hong, Kim, Thornberg, Kang & Morgan, 2018:328; Robinson, 2012:6). Most victims do not disclose cyberbullying experiences to parents until it is too late. Hence, parents need to promote positive relationships with their children to reduce the non-reporting cases of cyberbullying before it worsens (Domas & Midgett, 2020:958). The parents are part of the child's immediate environment; hence they are expected to build trust and confidence in the child; by implication, when a child trusts the learning environment, it gives the child the needed confidence to participate in the learning environment; however, if trust is broken, the child views the learning environment as unsafe (Wang, Yang, Wang, & Lei, 2019:49; Hong & Eamon, 2012:430).

There have been arguments that cyberbullying is prevalent in homes where parents or caregivers do not monitor their children's activities on the internet (Hong *et al.*, 2018:328; Johnson, 2010:33). The assertion is supported by Meter and Bauman (2018:307), who reported that only a few parents supervise and monitor the internet activities of their children. Parents and guardians should be encouraged and educated to monitor the online behaviours of their children to prevent cyberbullying incidence at home (Athanasίου, Melegkovits, Andrie, Magoulas, Tzavara, Richardson, Greydanus, Tsolia & Tsitsika, 2018:2). Hawkins (2019:34) and Darling (2007:209-213) summarised ways parents could combat cyberbullying which are timely parental intervention, monitoring and supervision; effective leadership styles and gaining knowledge of the adolescents. Parents should endeavour to spend more quality time with their children and pay keen interest to what they do on the internet (Zhong *et al.*, 2021:3).

c) The Peers

The impact of peer influence in the microsystem cannot be overemphasised because adolescents spend a reasonable amount of time with friends and colleagues both online and when they are not

on the internet; as a result, their decisions are influenced mainly by their friends (Romera *et al.*, 2016:72). It is often recorded that cyberbullies act in groups which promote or encourage the act (Cowie, 2014:26).

In the microsystem, the following groups of peers are identified: bystanders, passers-by, and onlookers (Hawkins, 2019:31). There are two types of bystanders in the cyber world: active and passive participants. The active bystanders encourage cyberbullies to perpetrate the acts, while the passive bystanders are there to observe (Schofield, 2019:18). In preventing cyberbullying in the learning environment, bystanders should take decisive steps to reject or report bullying incidents.

3.3.1.2 Theoretical application to Non-Human Components of the Microsystem

a) Theoretical application to the Learning Environment

The learning environment is classified into physical and psychological environments (Zhang, 2018:1765). The physical environment includes the instructional materials, the classroom space and school premises (McQuillan, 2016:58). While the psychological environment includes the interaction between staff and students, school policies, school discipline, acceptance, and the school climate (Hawkins, 2019:37; Nickerson, Singleton, Schnurr & Collen, 2014:160).

The school environment plays a significant role in combating cyberbullying among adolescents (Ferrer-Cascales, Albaladejo-Blázquez, Sánchez-SanSegundo, Portilla-Tamarit, Lordan & Ruiz-Robledillo, 2019:2; Simão, Ferreira, Freire, Caetano, Martins & Vieira, 2017:13). Studies have linked an unfriendly school climate to cyberbullying behaviours among adolescents (Bartolo, Palermi, Servidio, Musso & Costabile, 2019:569); therefore, both the physical and the psychological space should be structured to discourage cyberbullying. Pennell, Campbell, and Tangen (2020:285) suggest tackling cyberbullying in the learning environment by providing anti-bullying policies and promoting mutual respect among the learners. Also, school-based intervention programmes are recommended to eradicate cyberbullying prevalence in the learning environment (Byers, Mishna & Solo, 2019:2; Hawkins, 2019:37). However, in Nigeria, there is no law or anti-bullying policies or programmes in schools to curb cyberbullying activities, and this further justifies why the researcher embarks on the study.

b) Application to Electronic Device

Many adolescents operate their own electronic devices and social media platforms without restrictions (Meter & Bauman, 2018:307). Devices like smartphones, tablets, laptops, computers, and television exist in the child's microsystems and influence adolescents' growth and social development (Van-Hee *et al.*, 2018:1; Johnson, 2010:34). These devices can be used to improve teachers' and learners' interactions and to enhance teaching and learning (Herselman, Botha, Mayindi & Reid, 2018:1). However, it has also become a tool for cyberbullying among adolescents and medium of online aggression any time of the day, at school, home, formal and informal environments since parents do not have enough time to monitor their activities on the internet (Peppler, 2017:62; Watts, Wagner, Velasquez & Behrens, 2017:269).

3.3.2 Mesosystem

Bronfenbrenner (1979:25) states that the mesosystem involves interacting with the child and the environment. The interaction signifies the relationship between the adolescent and the home, school, church, peers and community, especially when it is between more than one element of the microsystem (Herselman *et al.*, 2018:3; Espelage, 2014:258). It is the interrelationship between two or more environments in which the adolescent is actively involved (Campos-Gil *et al.*, 2020:2). In summary, it is the relationship between microsystems (Stebbleton, Rost-Banik, Greene & DeAngelo, 2017:359). It is a platform where people socialise, connect and interact with friends, families, teachers and colleagues in school and beyond (Espelage, 2014:258). Social media and social networking sites bring the mesosystem closer and nearer; however, it has become a tool of aggression and victimisation among many adolescents (Hawkins, 2019:53).

3.3.2.1 Application of the Relationships in the Mesosystem

There are four fundamental interactions in the mesosystem relationship patterns and participation between the child and the environment (Dishion, Mun, Ha & Tein, 2019:42; Bronfenbrenner, 1979:209). However, these relationships are rarely mentioned in the literature.

i. Multi-setting participation and interactions

Multi-setting participation is a sequential multitasking interaction between the child and the components in the immediate environment. According to Bronfenbrenner (1979:209), it is an interaction between two or more settings.

"...multi-setting participation can also be defined as the existence of a direct or first-order social network across settings in which the developing person is a participant"
Bronfenbrenner (1979:209).

A mesosystem occurs when a growing adolescent leaves an environment for a new one. When this happens, Bronfenbrenner calls it an "ecological transition" (Bronfenbrenner, 1979:210). When the child in the centre of the microsystem interacts with more than one environment within the mesosystem, she's referred to as the primary link. At the same time, other people within the systems are called supplementary links. The theory is applied by Eriksson *et al.* (2018:426) and Bronfenbrenner (1979:210) to support Bronfenbrenner's postulations on multi-setting interactions in the mesosystem. When the child interacts with family and peers at different times, she is referred to as the primary link, while the parents who lead the child to the school are the additional link between the child's school and the home environment (Garbarino, 2017:160).

ii. Indirect linkage – Bronfenbrenner

The second level of interaction within the mesosystem is called indirect linkage. Bronfenbrenner argues that the growing child can be inactive within the environment and yet for interactions to occur through a third party, known as the intermediate link (Bronfenbrenner, 1979:210). When there is an indirect link between the microsystem participants, it is called the second-order network between the environments. Second-order networking occurs through social media platforms and other social networking sites whenever an intermediary exists between the child and the environment (Dishion *et al.*, 2019:42). Social media creates platforms for adolescents to express their friendships on social networking sites like Facebook, Twitter, Instagram, Snapchat, and Myspace; participants on these platforms are in virtual environments and do not see physically; however, they are remotely connected through the internet (Woods, Taylor & Dumas, 2019:1; Van Den Eijnden, Koning, Doornwaard, Van Gorp & Ter Bogt, 2018:697).

iii. Inter-setting Communications

Inter-setting communications are the different messages transmitted from one environment to another. These communication channels are endless and could be direct via face-to-face interactions, phone conversations, letters, or indirectly through social networking (Bronfenbrenner, 1979:210). Inter-setting occurs when there is an active interaction between the participating adolescents and their environment; this interaction could either be a one-sided or dual conversation (Higgins & Cherrington, 2017:14).

Positive communication between adolescents and parents, adolescents and the school, and parents and school could go a long way to enhance the learning environments (Kocayörük, 2016:4). By implication, social media and electronic devices are common mediums of communication among growing adolescents, through which text messages, voice notes or voice calls, emails are sent to third parties (Woods *et al.*, 2019:1; Van Den Eijnden *et al.*, 2018:697). However, some adolescents have abused the channels by transmitting aggressive and intimidating messages through these mediums (Watts *et al.*, 2017:269).

iv. Inter-setting knowledge

Inter-setting knowledge is the overlapping information passed from one environment to another through inter-setting communication or other sources like the internet (Bronfenbrenner, 1979:210). Three types of inter-setting knowledge are identified whenever the adolescent enters a new environment: firstly, solitary interactions occur when the adolescent leaves home to go to school unsupported. Secondly, dual interactions happen when family members accompany adolescents from home to school. Thirdly, multiple-linked participation is when adolescents get multiple support from people in the new environment (Athanasidou *et al.*, 2018:2; Bronfenbrenner, 1979:211).

3.3.3 Exosystem

The exosystem is described as the social context or the social environment where the child does not have direct contact yet is influenced by the happenings (Schofield, 2019:21; Onwuegbuzie *et al.*, 2013:5). It is the adolescent's indirect environment; however, the influence of the environment affects the child through the microsystem (Schofield, 2019:21; Espelage, 2014:258). It involves both the official and unofficial environment, which does not include the growing adolescents

directly but is being affected by it (Oliveira *et al.*, 2020:3). The exosystem components are not exclusive to the following: mass media, local politics, social services, neighbours, and industries (Vélez-Agosto *et al.*, 2017:902).

- **Theoretical application of Exosystem**

By implication, a policy change in the community might significantly impact the lives of adolescents living in such communities. The community's decision to shut down schools within her jurisdiction could negatively impact the developing child (Hong & Eamon, 2012:430-431). Since the school is a subset of the broader community, whatever transpires in and around the community indirectly impacts the school system. A violent community will likely give birth to aggressive students because the school environment is integral to the community (Pennell *et al.*, 2020:286; Espelage, 2014:260).

3.3.4 Macrosystem

The macrosystem signifies the cultural values, norms, beliefs and policies that affect developing adolescents (Hawkins, 2019:56; Geldenhuys and Wevers, 2013:4; Onwuegbuzie *et al.*, 2013:5). It represents the larger society in which the developing child lives (Oliveira *et al.*, 2020:4; Schofield, 2019:21). The macrosystem is the belief system and the perceived norms that operate within a given society and its influence on the entire ecosystem (Prinsloo *et al.*, 2019:8). The belief system in each society and the perception on violent behaviours could either encourage or hinder bullying behaviours.

- **Theoretical application of the Macrosystem**

Ihmeideh and Alkhawaldeh (2017:140) asserted that the influence of the media, including social media, mass media and satellite cable transmission on society, significantly impacts the developing child. What transpired in the larger society had a ripple effect on the smaller ecosystem, especially the home, school, and neighbourhoods (Pennell *et al.*, 2020:287). Furthermore, constant exposure to violent and aggressive behaviours through the media could harm the child's development (Van Hee *et al.*, 2018:2). Thus, the need to enhance the learning environment of cyberbullied

adolescents from a holistic approach (Hawkins, 2019:50). Below explains the second theory to support the study.

3.4 BANDURA'S SOCIAL LEARNING THEORY

3.4.1 Assumptions and rationale for Bandura's Social Learning Theory

In chapter one, Bandura's Social Learning Theory was introduced to enhance the learning environment of cyberbullied adolescents in rural communities (Gallo, 2021:11). Bandura's Social Learning Theory emphasises learning from the social environment and the reciprocal interactions between personal, behavioural, and social environmental variables (Schunk & DiBenedetto, 2023:23). The theory emphasizes the role of the learners, the rationale of the behaviour and the environment that promotes or disapproves the behaviour (Amoyedo-Peter, 2023:200). According to Bandura, learners possess the capability to guide themselves by exerting control over their cognitive processes, motivation, and self-directed actions (Melo-Dias & Silva, 2019:102). The social learning theory considers the cognitive process. It offers an exposition of human learning through the comprehension and observation of the learning process (Joan, 2020:69). Social learning theory, as proposed by Bandura, recognizes the importance of both external reinforcement and internal cognitive processes in the learning experience. It emphasizes the reciprocal interactions between personal, behavioural, and environmental factors in learning (Schunk & DiBenedetto, 2023:22-23). According to Ozoaghuta and Ojukwu (2022:226), Bandura's Social Learning Theory consists of four basic principles. The first principle is attention, which states that learning requires focusing on the task at hand. The second principle is retention, emphasising the importance of internalizing information in our memories. The third principle is reproduction, which suggests reproducing previously learned information or skills when needed. Finally, the fourth principle is motivation, which highlights the need for individuals to be motivated to engage in any activity (Safinah, Arifin, Rosyidi & Rahmawati, 2023:322; Pereg, Hertz, Ben-Artzi & Shahar, 2023:2). The theory also emphasises the significance of self-efficacy, which affects and is influenced by motivation and learning (Jin, 2022:183). Social Learning Theory explains that individuals learn through imitation, observation, and modelling in a social environment (Ozoaghuta & Ojukwu, 2022:229). It considers the thinking process and provides a comprehensive understanding of human learning. Overall, Bandura's Social Learning Theory bridges

behaviourism and cognitive approaches, acknowledging the complex interplay between personal, behavioural, and environmental factors in the learning process (Firmansyah & Saepuloh, 2022:297).

3.4.2 Theoretical application of Bandura's Social Learning Theory to cyberbullying adolescents

Bandura's Social Learning Theory provides a theoretical framework for understanding the learning process in a social environment (Stanley, Banks, Matthew & Brown, 2020:11). The theory emphasizes that learners learn through imitation, observation, and modelling in a social environment (Van Voorhis & Salisbury, 2022:199). Observational learning is the most common form of human learning, including learning antisocial and prosocial behaviour (Samsir, Teori & Jurnal, 2022:3067). The theory also emphasizes the role of cognitive processes, such as attention, memory, behaviour, and motivation, in the learning process (Caroline Gerard, Choong, Kang, Ling & Poo, 2019:16). By applying social learning methods, adolescents can develop themselves, explore choices, and improve their skills. Understanding the personal and environmental factors that motivate individuals, such as opportunities for self-development, peer encouragement, and cultural traditions, can further enhance the effectiveness of social learning interventions (Yu & Sung, 2022:3853). In the context of cyberbullying adolescents in rural communities, the application of social learning theory can enhance the learning environment and support the development of adolescents (Zhu, Huang, Evans, & Zhang, 2021:2). By providing opportunities for positive modelling and teaching appropriate social behaviours, social learning theory can help cyberbullied adolescents develop the necessary skills to navigate and respond to cyberbullying situations (Kim & Faith, 2020:298).

The diagram below demonstrates the interconnectedness within Bandura's Social Learning Theory.

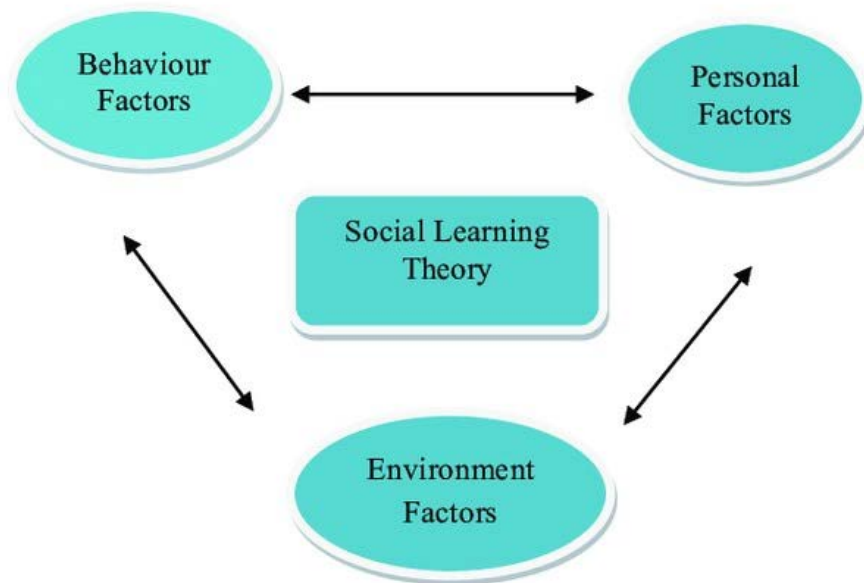


Figure 3.2: Bandura’s Social Learning Theory (Source: Bandura, 1977)

3.5 ERIK ERIKSON'S THEORY OF PSYCHOSOCIAL DEVELOPMENT

3.5.1 Assumptions and rationale for Erik Erikson's Psychosocial Theory of Development

Erikson's theory consists of eight stages of psychosocial development, starting from birth and continuing until old age. Each stage builds upon the previous one; hence the first phase affects the next stage; this implies that the successful completion of the present phase is determined by the earlier phase (Okunev, 2022:49; Wijaya, 2022:46; Jones & Waite-Stupiansky, 2022:34). In this study, the focus is the adolescence stage due to its direct implication on the aim and objective of the study which is to design a strategy to enhance the learning environment of cyberbullied adolescents in rural ecology. According to Erik Erikson’s Theory of Psychosocial Development, adolescence is a crisis period classified as a stage of ego identity versus role confusion (Kitchens & Abell, 2020:1254). The adolescence stage of Erikson's Psychosocial Development Theory can be divided into early and late adolescence. In the early stage, adolescents lack clarity and battle confusion regarding who they are; however, they have a more precise knowledge of themselves in the latter stage (Bogaerts, Claes, Buelens, Verschueren, Palmeroni, Bastiaens & Luyckx, 2021:107). Understanding Erikson's stages of psychosocial development allows educators to provide opportunities for adolescents to grow and find their true identity (Jones & Waite-Stupiansky, 2022:35).

3.5.2 Theoretical application of Erik Erikson's Psychosocial Theory of Development

Erik Erikson's Psychosocial Theory of Development offers a framework for understanding and addressing the psychosocial impacts of cyberbullying on adolescents (Jones & Waite-Stupiansky, 2022:35). Specifically in the adolescence stage, the theory emphasises the concept of role confusion versus ego identity, and this can be applied to enhance the learning environment of cyberbullied adolescents in rural ecology. By understanding the psychosocial changes that adolescents go through, educators can design a learning environment that addresses their present and future behaviour (Maree, 2022:120). Erikson's theory offers a way for educators to measure who their learners are and how the school environment may inhibit or enhance their development (Luke & Carmen, 2018:189). Additionally, Erikson's theory emphasizes the co-development of the individual and society, which is crucial in understanding the impact of cyberbullying on identity development (Beck, 2019:16). By incorporating Erikson's theory into the design of the learning environment, educators can create a dialogic space for socio-cultural researchers to explore the relationships between identity, agency, power, and the cultural worlds of practice (Yurdakul, Beyazit & Ayhan, 2021:153). This can help address the challenges cyberbullied adolescents face in rural ecology and promote the formation and development of their healthy identities (Chester, Magnusson, Klemra, Spencer, & Brooks, 2019:292).

3.6 THEORETICAL TRIANGULATION OF BANDURA'S SOCIAL LEARNING THEORY AND ERIK ERIKSON'S THEORY OF PSYCHOSOCIAL DEVELOPMENT TO DESIGN A STRATEGY FOR ENHANCING ENABLING LEARNING ENVIRONMENT FOR CYBERBULLIED ADOLESCENTS

Interrelationships can be observed between Bandura's Social Learning Theory and cyberbullying in adolescents. Bandura's theory suggests that individuals learn behaviours through observation and imitation of others, and this can be applied to cyberbullying roles and perpetration (Guo, Liu & Wang, 2021:167; Irmayanti, Soetjipto, Chusniyah & Rahmawati, 2023:306). Additionally, Erikson's Theory of Psychosocial Development can be linked to cyberbullying in adolescents, specifically concerning ego identity and role confusion. Erikson proposed that during adolescence, individuals go through a stage of identity formation and may experience confusion in finding their authentic self (Wang, Dong & Qiao, 2021:1). This confusion can contribute to cyberbullying behaviour as adolescents may engage in online aggression to establish a sense of identity or to fit

into a particular social group (Rębisz, Jasińska-Maciążek, Grygiel & Dolata, 2023:2). Therefore, both Bandura's theory and Erikson's theory provide insights into the factors influencing cyberbullying behaviour in adolescents and the importance of addressing socioemotional development and social support in prevention and intervention efforts (Crawford, 2018:5).

In addition, to enhance the enabling learning environment for cyberbullied adolescents, a strategy can be designed by integrating Bandura's Social Learning Theory and Erikson's Theory of Psychosocial Development. Bandura's theory emphasizes the role of behaviour, environmental factors, and personal factors in learning (Chun, Lee & Kim, 2021:1). By incorporating this theory, interventions can focus on developing supportive relationships, promoting personal traits, and enhancing awareness of online behaviours (Rerung, 2023:45). Erikson's theory, on the other hand, highlights the importance of resolving the psychosocial crisis of role confusion versus ego identity during adolescence (Benson & Bundick, 2020:196). This can be addressed by providing opportunities for self and skill development, fostering a sense of belongingness, and promoting personal achievement (Chan, Cheung & Lee, 2021:2). By combining these theories, a comprehensive approach can be developed to address the psychological, social, and educational needs of cyberbullied adolescents, creating a safe and supportive learning environment (Wijaya, 2022:45).

3.7 CONCLUSION

This chapter presented theories to assist in improving the learning environment of cyberbullied adolescents in rural environments, drawing on Bronfenbrenner's Ecological Systems Theory, Bandura's Social Learning Theory, and Erikson's Psychosocial Theory of Development. In addition, to improve the study, the theories' underlying assumptions, rationale, and application were examined and synchronised. The subsequent chapter provides an exposition of the research design and methodology.

CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

In the previous chapter, the theoretical framework was established. Bronfenbrenner's Ecological Systems Theory, Bandura's Social Learning Theory, and Erikson's Psychosocial Theory of Development were converged and explained to aid in reaching the aim as set out in Chapter One. To attain this objective, this chapter focuses on the research methodology employed for the study. The chapter is divided into two, namely the quantitative and qualitative phases. In addition, it expounds on the measures undertaken to ensure the research paradigm, research design, data collection, selection of research participants, data analysis, and ethical considerations.

4.2 RESEARCH PARADIGM – TRANSFORMATIVE PARADIGM

The Research Paradigm represents the worldview of a researcher, the philosophical assumptions, beliefs, concepts, values, and the research approach (Held, 2019:1; Kaushik & Walsh, 2019:1; Kivunja & Kuyini, 2017:26). As explained in chapter one, the transformative paradigm guides this study. The choice of transformative paradigm is informed due to its alignment with the aim and objective of the research study (Mertens, 2017:18; 2015:76). The transformative paradigm is centred on the emancipation of the oppressed and the socially marginalised individuals, groups, or communities. It addresses power imbalance, emphasises social justice, and promotes a democratic research process among the researcher, participants, and relevant stakeholders within a community (Phelps, 2020:1).

The transformative studies advocate for programme evaluation, implementation and effective policymaking by engaging stakeholders within the community with a focus on bringing a positive change to society (Diercks *et al.*, 2019:881). This is achieved through teamwork, cooperation, and collaboration; the researcher and the participants are co-investigators (Cram & Mertens, 2016:165).

The transformative paradigm replies to the outcry of socially marginalized individuals or groups. It became prominent because of gaps created when the yearnings and agitations of marginalized

communities were not cared for (Mertens, 2015:76). As stated earlier in chapter one, cyberbullying is intentional intimidation or oppression against a target victim or groups using electronic devices (De Stefano, Durri, Stylogiannis & Wouters, 2020:7; Neto & Barbosa, 2019:225). Cyberbullying has also been described as a means of exerting power imbalance between the perpetrators and their victims (Nelson, Burns, & Kendalland Schonert-Reichl, 2019:1). Concerning this study, the transformative paradigm will address the research problems by creating an enabling learning environment for cyberbullied adolescents in the rural marginalised community.

4.2.1 Transformative philosophical assumptions

The transformative paradigm is built on three philosophical assumptions: axiology, ontology, and epistemology. These three principles guide and inform the research approach.

4.2.1.1 Transformative axiological assumptions

Transformative axiological assumption explains the roles of research ethics; it advocates for what's right or wrong and emphasises the place of value in the research study (Kivunja & Kuyini, 2017:28). Axiology is guided by the principles of fairness, morality, deontology, and teleology (Kivunja & Kuyini, 2017:28-29). Teleology is the theory of morals. It addresses what's good or wrong (Sauer, 2023:2). It clarifies steps taken in mitigating harms and risks against the participants. Decisions and actions taken during the research should be of value to the participants and the community. Deontology is the justification for the actions. Actions embarked upon during the research have corresponding consequences. The actions of the researcher should mitigate risks and harms. Morality is being honest and truthful before, during, and after the data process- data collection and interpretation. Lastly, fairness is being fair to participants and treating them fairly and respectfully.

Transformative axiology demystifies the position of the researcher and the participants to ensure the ethical procedure is followed in the research process (Mertens, 2017:20).

- **The Researcher**

Transformative researchers advocate that research should promote equity and justice (Mertens, 2017:20). The researcher should examine their values system and move beyond cultural biases.

They should not allow their biases to interfere with the research process. At the same time, the study's outcome should be used to tackle inequalities and oppression.

- **The participants**

The cultural values of the participating community should be respected. The researcher is expected to hold participants in high esteem and dignity. Also, there should be mutual respect between the researcher and the participants, and mutual cultural respect should be emphasised (Mertens, 2017:20).

- **The Research**

Research should not only be done ethically, but the findings should be applied to effect social change, equity, and transformation of the marginalised community (Phelps, 2020:4). Enhancing the learning environment of cyberbullied adolescents in a rural environment is one way to ensure social justice for marginalised adolescents in the rural community. Similarly, enlightening the stakeholders, parents, adolescents, teachers, and the larger society about the danger of cyberbullying will ensure a safer learning environment for adolescents in the rural community.

4.2.2 Transformative ontological assumptions

Transformative ontological assumption states that accepting one reality over the other is prejudiced because there are diverse views of what is believed to be authentic. There are many reasons for these beliefs (Mertens, 2017:21). Four types of realities are investigated: naïve realism or single reality, relativist ontology, non-singular reality ontology – the reality is expressed in multiple ways, no singular reality should be used to understudy phenomenon and historical realism- deals with the emancipation of the oppressed and enforcement of social justice in the community (Okesina, 2020:58).

According to Phelps (2020:5), the transformative researcher should be aware of multiple realities because realities have many versions. The researcher should be open to divergent views because new realities may surface during the study, implying that the researcher should be flexible and probe into what the community respects and adheres to such values. In conclusion, they must be conversant with societal values and identify with the community's cultural ideology.

4.2.3 Transformative epistemological assumptions

Transformative epistemological assumptions explain “how we come to know something.” It seeks to ask questions and clarification: "what is the relationship between the knower and the participants? How do we know what we know and what counts as knowledge?" (Kivunja & Kuyini, 2017:27). To find out how we come to know what we know, there are four sources of knowledge to consider: namely, empirical, authoritative, intuitive and logic/reasoning. Researchers and participants should engage in the research process (Phelps, 2020:7).

According to Kivunja and Kuyini (2017:27), four types of epistemologies apply in the quest for knowledge: objective, subjective, relational, and transactional. Objective – as the name implies, it is objective, impartial, neutral, and unbiased. In subjective, the researcher and participants co-generate knowledge from the researcher’s viewpoint. The relationship between the relational researcher and the participant is relative, thus influencing the research outcome. The Transactional researcher leverages the relationship with participants to generate knowledge and apply the knowledge to mitigate issues of inequality, oppression, and marginalisation (Okesina, 2020:59).

In summary, the research paradigm of a researcher is expressed through philosophical assumptions, i.e., what is viewed as the nature of reality (ontology), how we know what we know (the epistemology), what represents the value (axiology), the methodological approach and methods applied in the study (Held, 2019:1).

4.3 RESEARCH DESIGN

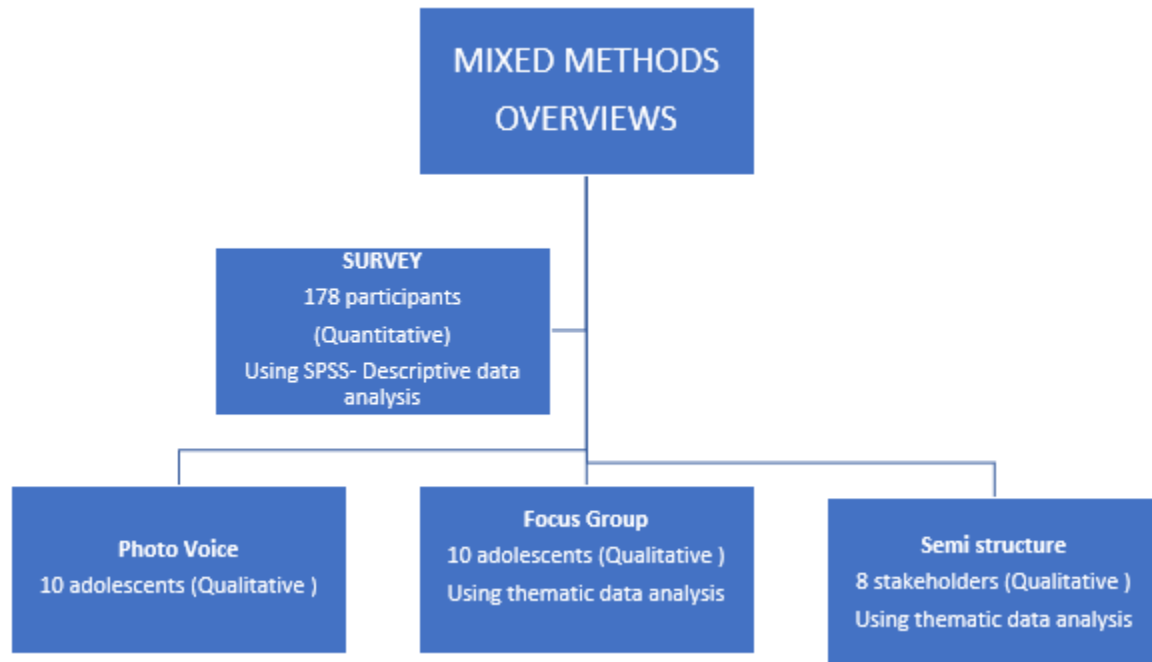


Figure 4.1: Research design overview

4.3.1 Mixed Method Research Design (MMRD)

(Mixed Methods- →Explanatory Sequential Design→ participatory selection variant)

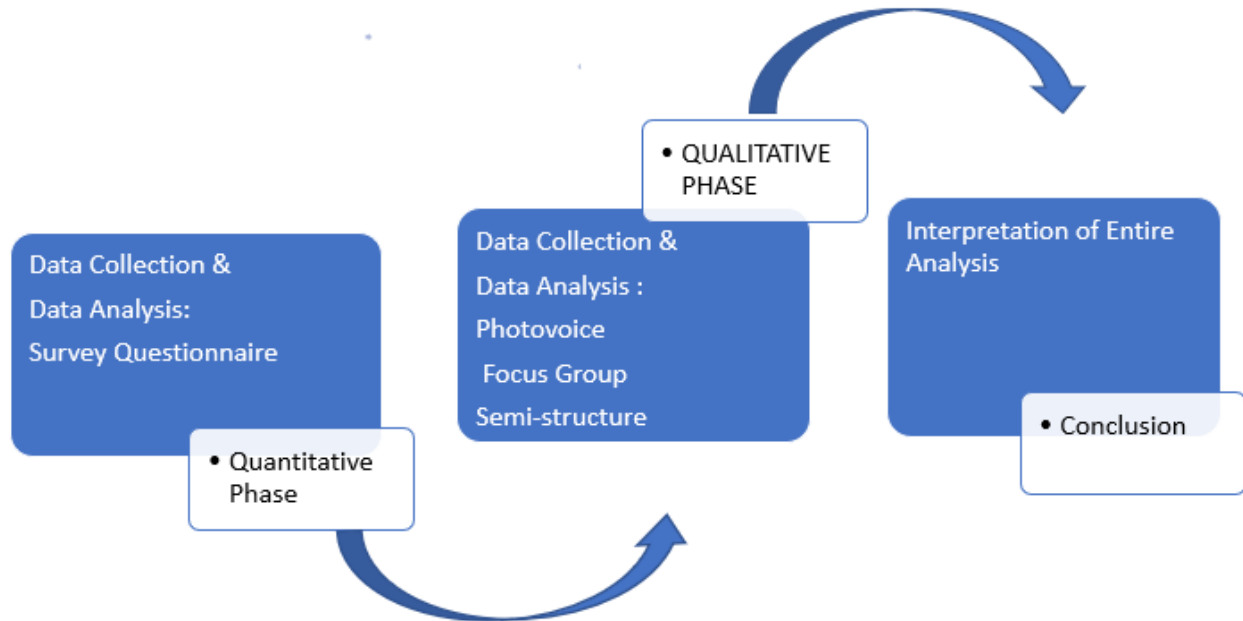
The mixed methods form the broad head of the research design adopted for the study. The design promotes the emancipation of socially marginalised groups in rural communities by applying multiple data techniques (Jackson, Pukys, Castro, Hermosura, Mendez, Vohra-Gupta, Padilla & Morales, 2018:111). The mixed methods research design applies both quantitative and qualitative methods in a single study to understand the phenomenon under investigation and unravel the research problems (Khaldi, 2017:22; Schoonenboom & Johnson, 2017:108; Shannon-Baker, 2016:319). Creswell and Plano Clark (2017:29-30) define mixed methods as combining qualitative and quantitative methods in a single research study for data enrichment and in-depth study. The mixed methods design addresses the question of “what, how and why” of the research problems (Dewasiri, Weerakoon & Azeez, 2018:3). The “what” explains the quantitative strand, while the “how and why” addresses the qualitative research (Cohen *et al.*, 2018:42). The design proffers divers’ options to knotty research problems by leveraging the strengths of quantitative and

qualitative methods and removing limitations posed by applying one method (Fàbregues, Hong, Escalante-Barrios, Guetterman, Meneses & Fetters, 2020:3853). Implementing mixed methods in the study supports rigorous data procedures, data validation, enrichment, and triangulation (Dawadi, Shrestha & Giri, 2021:28). The design is suitable for community-based and programme intervention studies (Kaur, Vedel, El Sherif & Pluye, 2019:666). It also promotes the development and implementation of program evaluation (Creswell & Plano Clark, 2017:41).

4.3.2 Explanatory Sequential Research Design (Quan→QUAL)

The mixed methods research design is classified according to weight and sequence. The timing of the design application often signifies the sequence in the mixed methods. At the same time, the importance emphasises either the quantitative or qualitative strand (Creswell and Plano Clark, 2017:83). In my study, explanatory sequential design (ESD) is applied, denoted by *Quan→QUAL*. In *Quan→QUAL*, the "Quan" represents a subordinate or minor quantitative phase, the "QUAL" indicates a primary or prioritised qualitative phase, and the arrow shows the direction or sequence. The process involves separate independent data collection and analyses of the quantitative and qualitative phases, enhancing data similarity, differences, comparison and complementary (Leavy, 2017:175). The diagram below is a diagrammatic representation of the explanatory sequential design.

Figure 4.2: Explanatory Sequential Design (Adapted from Gunbayi, 2020:46)



4.3.3 Application of explanatory sequential design to the study

The explanatory sequential design (ESD) is a subset of the mixed method design called the qualitative follow-up approach. In ESD, the quantitative strand precedes the qualitative strand and is followed by a detailed qualitative strand (Creswell & Plano Clark, 2018:231). As stated in chapter one, the emphasis of the study is on the qualitative strand; hence, to achieve the aims and objectives of the study in line with the transformative paradigm, the researcher adopted participatory selection variant (PSV), a type of explanatory sequential design termed quantitative preliminary design, the design informs the conduct of initial quantitative strand, from the outcome, qualitative participants are selected. Creswell and Plano Clark (2017:104) opined that it is possible to take the quantitative phase before the qualitative phase and still have dominant qualitative research.

4.4 PHASE I: QUANTITATIVE STUDY

Overview:

- Sampling
- Selection of Research Participants

- The Instrument
- Data Collection
- Data Analysis

4.4.1 Sampling, sample size and sampling method

The population comprises 32,219 adolescents based on the national population census of the rural Irepodun-Ifelodun Local Government Area of Ekiti State, Nigeria. The researcher employed Creative Research System Survey Software (www.surveysystem.com) to calculate the sample size based on the last national population commission census. The survey software supports the selection of participants that reflects the target population. Using a confidence level of 95% and a confidence interval 6.98, the sample size calculator results show 196 participating adolescents. However, only 178 respondents returned the filled questionnaires; this signifies a high return rate of 90.8%, indicating participants' interest in the study. Araromi Community secondary school (pseudonyms) was selected from the Irepodun-Ifelodun Local Government Area of Ekiti State, Nigeria, using purposive random sampling techniques. The choice of the location was based on meeting the criteria for a rural community due to the settlement's local, remote, and agrarian nature. The school comprises two divisions: the Junior Secondary school (JSS) and the Senior Secondary School (SSS). Hence, the school is stratified into junior and senior secondary schools. The junior secondary school comprises classes 1-3, while the secondary school comprises senior secondary school classes 1-3.

4.4.2 Selection of research participants

Using a simple random sampling technique, 196 adolescents were selected to participate in the initial quantitative strand of which 178 returned the questionnaire.

4.4.3 Research instrument

A questionnaire is a quantitative data collection instrument to solicit information from a large population on various topics. It is considered cheap, fast and easy to administer (Cohen *et al.*, 2018:471). The survey questionnaire was designed to elicit information on enhancing cyberbullied adolescents' learning environment in a rural Irepodun/Ifelodun Local Government Area of Ekiti State. It has four sections with 19 items covering background information, adolescents and cyberbullying, rural ecology and enabling learning environment.

Most of the cyberbullying instruments available do not cover the variables under investigation or address cyberbullying incidences in rural areas, which is the focus of this study; hence, this underscores the need for the study (Garaigordobil, 2017:3559). Based on this finding, the researcher constructed a questionnaire to address the aim and objectives of the study, taking into consideration the research questions. Also, in doing research with adolescents, the ages of the participants were considered, which ranged between 10-18 years. Hence, the instrument is simple, clarified, non-ambiguous and non-parallel.

4.4.4 Reliability of the instrument

4.4.4.1 Reliability Test (Cronbach’s alpha)

According to Streiner (2003), Cronbach’s alpha is the most commonly used measure of reliability. An index of Cronbach’s alpha that is widely accepted is summarised as follows:

Table 4.1: Cronbach’s Alpha Scores Index

Cronbach's Alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent (High-Stakes testing)
$0.7 \leq \alpha < 0.9$ Good	Good (Low-Stakes testing)
$0.6 \leq \alpha < 0.7$	Acceptable
$0.5 \leq \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

(Source: Streiner, 2003:102)

Cronbach alpha, denoted as (α), measures internal consistency. In addition, Cronbach alpha (α) estimates the proportion of variance in the test scores that can be attributed to true score variance. Cronbach alpha estimates the proportion of variance that is systematic or consistent in a set of test scores. The Alpha value ranges from 00.0 (if no variance is consistent) to 1.00 (if all variance is consistent), with all values between 00.0 and 1.00 also possible. An alpha value ranging from 0.6 – 0.7 is acceptable, i.e., 60% to 70 % of the data is reliable. Generally, the acceptable Cronbach’s alpha value for research in social sciences is 0.6 and above.

Table 4.2: Cronbach’s Alpha Reliability for Adolescents & Cyberbullying, Rural Environment and Enabling Learning Environment

Constructs	Number of Items	Cronbach’s Alpha(α)	Internal consistency	Reliability
Adolescents & Cyberbullying	6	0.78	78%	High internal consistency
Rural Environment	5	0.71	71%	High Internal consistency
Enabling Learning Environment.	4	0.62	62%	Acceptable

Table 4.2 illustrates the reliability test of variables (items) that makeup constructs Adolescents and Cyberbullying with an internal consistency of 78%, which is acceptable. Initially, eight items were under the construct of Adolescents and Cyberbullying; however, two variables were eliminated due to low internal consistency. Furthermore, the rural environment was represented by five items. All the items showed a high internal consistency of 71%, and as a result, all items were accepted to represent Rural ecology. Finally, the construct (Enabling Learning Environment) was initially represented by five items; one item was eliminated due to low internal consistency. Therefore, four items with an internal consistency of 62% represented the Enabling Learning Environment.

4.4.5 Validity of the instrument

The validity was ascertained by face and content validity. Debriefing and auditing of the instrument were also conducted by showing experts in Test and Measurement for professional advice, the supervisor and data analyst for scrutiny and modification, after which it was submitted to the University of the Free State Ethics Committee on research for approval. The draft instrument was piloted among 20 adolescent students, showing high validity (Ralebese, 2019:65).

4.4.6 Administration of the instrument

The quantitative strand involves administering a survey questionnaire to adolescents living in the rural community of Irepodun/Ifelodun Local Government Area of Ekiti State, South-West, Nigeria. The questionnaires were personally distributed from class to class by the researcher.

Personal administration was employed because it enhances maximum returns from the respondents (Kumari, Ranjan, Vikram, Kaur, Sahu, Dwivedi, Baitha & Goel, 2020:1700).

4.4.7 Data collection

According to Cohen *et al.* (2018:47), mixed methods data gathering techniques could be concurrent or sequential. To achieve the aim of the study, the researcher adopted the Explanatory Sequential Design (ESD) approach by first administering questionnaires, after which qualitative data-gathering methods followed (photovoice, focus group-, and semi-structured interviews) (Cohen *et al.*, 2018:32; Creswell & Plano Clark, 2018:231).

4.4.8 Data analysis

The data collected from the questionnaires were analysed using Statistical Package for the Social Sciences (SPSS) version 26. SPSS is a multi-dimensional statistical tool for analysing descriptive and inferential data (Brace *et al.*, 2012:3; Landau & Everett, 2003:11). Though the study is a mixed-method design, emphasis is placed on the qualitative strands. The descriptive data were subjected to cross-tabulation, frequency count and percentages while Pearson's correlation was performed to test the hypothesis. Since the emphasis of the study is on the qualitative strand (Quan→QUAL approach), the Explanatory Sequential Design was adopted to explain the quantitative data using the qualitative strand (Creswell & Plano Clark, 2018:91). This procedure is consistent with the Explanatory Sequential Mixed Methods approach which allows taking quantitative before the qualitative data (Creswell & Plano Clark, 2018:231; 2011:82).

4.5 PHASE II: QUALITATIVE STUDY

This section introduces the qualitative phase of my study. The researcher employed multiple data collection techniques to enhance the study in the qualitative phase of the explanatory sequential design, which aligns with mixed methods research methodology and the transformative paradigm principles.

Qualitative Phase Overview:

- Selection of Research Participants
- Research Setting

- Role of the Researcher
- Data Generation Methods
- Data Analysis Procedures
- Ensuring Quality Check: Trustworthiness
- Evaluation Criteria in Explanatory Sequential Design
- Implementation of Evaluation Criteria
- Triangulation in Explanatory Sequential Design
- Conclusion

4.5.1 Qualitative phase: Selection of research participants

The quantitative phase comprised 178 adolescents selected from Junior and Senior High schools. In the qualitative strand of the study, purposive sampling was employed to select ten cyberbullied adolescents from the initial quantitative sample, who then partook in the photo voice and focus group interviews; also, purposive sampling techniques were applied to select eight (8) stakeholders from the community (two principals, two counsellors, two teachers and two parents) who partook in the semi-structured interviews. Purposive sampling is a non-probability sampling technique based on predetermined characteristics of the population and the aim of the study (Campbell, Greenwood, Prior, Shearer, Walkem, Young, Bywaters & Walker, 2020:652; Ames, Glenton & Lewin, 2019:1). In purposive sampling, the researcher selects participants on the criteria of providing rich information to enhance the study (Leavy, 2017:79-80). This aligns with the transformative paradigm, which advocates for inclusiveness and emancipation of the community via collaboration with community members and significant stakeholders (Cohen *et al.*, 2018:34). The above procedure will facilitate the design of a strategy that will enhance the learning environment for cyberbullied adolescents in the rural community.

4.5.1.1 Demographic characteristics of the participants

- **Adolescents**

The qualitative participants are evenly distributed, comprising five males and five females.

Table 4.3: Adolescent demographics

No.	Pseudonym Name	Age	Gender	Status
1	Clemence	16	Male	SSSS
2	Smiling A	17	Male	SSSS
3	Precious	15	Female	SSSS
4	Treasure	17	Female	SSSS
5	Heritage	17	Male	SSSS
6	Vivian	16	Female	SSSS
7	Chukwuma	17	Male	SSSS
8	Jonathan	16	Male	SSSS
9	Gracious	16	Female	SSSS
10	Phebe	15	Female	SSSS

*SSSS- Senior Secondary School Student

Table 4.4: Stakeholder demographics

No.	Pseudonym Name	Age	Gender	Status
1	Olayinka	51	Female	Principal
2	Jide	53	Male	Vice Principal
3	John	45	Male	Subject Teacher
4	Jane	37	Female	Subject Teacher
5	Love	52	Female	Counsellor
6	Grace	45	Female	Counsellor
7	Kayode	53	Male	Parent
8	Ife	48	Female	Parent

4.5.2 Research settings

The research area is at Irepodun-Ifelodun Local Government Area (GRA) of Ekiti State in South-West Nigeria. The local language is Yoruba, with English being the official communication medium. Though participants are not experts in English, they did communicate in simple English. The village is governed by a monarch – who happens to be the paramount ruler. The monarch is

supported by high chiefs who head each quarter of the community. Araromi-Ekiti (pseudonym) is a rural community with a poor road network in the Irepodun-Ifelodun Local Government Area of Ekiti State, South-West, Nigeria. It has a dual carriage road that leads into and out of the town from the North and passes through the entire town, leading to the capital city. However, the road network within is poor and unmotorable. Most of the farm products are transported by motorbikes due to the poor state of the road from the farm to the community. Araromi Ekiti hosts Junior and Senior High schools named after the community (Araromi Ekiti Community Junior and Senior High Schools - pseudonym name) and a community primary school. Other infrastructural facilities include One Health Centre, unstable electricity, and the community experiencing interrupted electricity daily. However, solar panels are installed to lighten the streets at night. The community is close to a neighbouring higher institution; this factor could also contribute to the participants' (adolescents) understanding of the subject under investigation. It's mainly an agrarian community, with predominant occupations being subsistence farming, civil service, timber business, local hunting, and petty trading. Based on the last census, the population is one hundred and twenty-nine thousand, one hundred and fourteen, with a land mass of 356km per square (Please note, for a better understanding of the research area, a State in Nigeria is an equivalent of a Province in South Africa, though not necessarily in size or population).



Figure 4.3: Aerial photo of Araromi-Ekiti (pseudonym), at Irepodun-Ifelodun Local Government Area of Ekiti State, South-West, Nigeria (Source: Wikimedia Commons, 2023)

4.5.3 Role of the Researcher

The roles of the researcher were pre-study, study and post-study. During recruitment stage, the researcher advertised for volunteers on the school assembly ground; awareness and publicity were made, and participants were invited through (i) word of mouth on the school assembly ground, (ii) distribution of flyers to prospective students on the assembly ground, (iii) pasting of mini posters within the school premises for awareness. The researcher adopted a transformative paradigm approach. The transformative researcher advocates for respect and acceptance of participants' cultural beliefs (Phelps, 2020:5; Mertens, 2017:20). In addition, to ensure the credibility of the study, I set aside my biases and prejudices, ensure the findings of my research are used to promote social change and enhance the learning environment of socially marginalised cyberbullied adolescents in the rural community (Flick, 2018:8) (*also see section 4.2.1, the researcher, the participants and the research*).

4.5.4 Data generation methods

4.5.4.1 Photovoice research methodology

Photovoice is a qualitative data generation method (Ebrahimipour, Esmaeili & Varaei, 2018:216; Mark & Boulton, 2017:4). It is community-based participatory research pioneered by Wang and Burris to engage community participation and inclusion of socially marginalised individuals and groups in rural China (Derr & Simons, 2020:359; Latz, 2017:3; Evans-Agnew & Rosemberg, 2016:1020; Ronzi, Pope, Orton & Bruce, 2016:733).

Photovoice is the use of an electronic device like a camera, phone, or other gadgets to capture, record and interpret real-life events, daily activities, culture, and social life (Mark & Boulton, 2017:4). Photos are evidence-based data meant to validate happenings around our immediate environment (Latz, 2017:4). Photos taken are used to express what we see or observe in our world. Pictures taken in photovoice are not just photos but evidence-based facts that give meaning to real-life experiences (Wass *et al.*, 2020:835).

In a photovoice exhibition, this is important because photos captured reflect our hidden world made visible to people around us (Mysyuk & Huisman, 2020:1759). One of the advantages of photovoice is that it places research in the hands of the participants by making the participants active co-researchers. In photovoice, participants express their thoughts and perceptions using photos (Manasia, 2017:453).

Photovoice aims to achieve three basic goals: first, to empower participants by recording the community's needs and strengths (Golden, 2020:963). Secondly, photovoice is meant to open critical discussion among community members to make a change (Capous-Desyllas & Bromfield, 2018:3). The third reason is to create platforms to engage policymakers to effect transformation within the community. Photovoice aligns with the transformative paradigm as it intends to empower the marginalized and give voice to the oppressed and less privileged in the community (Tsang, 2020:136).

- **Photovoice procedure**

Ciolan and Manasia (2017:4), Latz (2017:4), Manasia (2017:455), and Sutton-Brown (2014:171) agree the following steps are essential in generating data with photovoice methods:

- Identification of the Place, People and Purpose
- Invitation and recruitment
- Initial group meeting-
- Orientation, Education and Training
 - Ice breaker exercise
 - Training- Examples
 - Photo Demonstration
 - Taking photos
 - Group Discussion
- Photos' deliberation and analysis with participants
 - Follow-up and feedback

a) Identification of the Place, People and Purpose

The first stage of a photovoice procedure is identifying the place and people in line with the aim and purpose of the study. In this study, the people are the participants, while the place is the research site. All ten adolescents participating in the photovoice sessions lived and studied in the rural community.

b) Invitation and recruitment of participants

c) Group Meetings

- **Initial Group Meeting with the school authorities**

Sequel to the approval of the Ekiti State Ministry of Education and the Teaching Service Commission to conduct research in Ekiti State, Nigeria, I scheduled a meeting with the school management. The meeting was friendly, cordial, and interactive. Being a former employee of both commissions made it easy for me to connect faster with the staff.

- **Subsequent Meetings with the school management authorities**

The researcher and the principal scheduled another meeting with the management staff involving both the junior and senior secondary schools' management. I met with the class teachers, Vice principals, counsellors, and Parent Teacher Association (PTA) representatives, followed by another appointment where I was granted access to address the students on the assembly ground, where I shared the purpose of my study.

- **Meeting with Adolescents**

The first official meeting with the adolescents was on the assembly ground during the Quantitative phase of my study. Two weeks after collecting my quantitative data, I returned to the schools for the qualitative data collection phase. This time, it was easier to navigate the school premises because I was already familiar with the geographical areas. As explained initially, 178 adolescents participated in the quantitative phase.

Adolescents' informed consent forms and parental/guardian consent forms were distributed, filled, signed, and collected from all participants before the commencement of the study. Recruited adolescents participated voluntarily and were assured they could withdraw anytime they wished.

- **Orientation and Training of Participating Adolescents**

- a. The researcher began the session by introducing a brief icebreaker exercise to enhance rapport establishment and familiarization.

Though some of the participants have seen each other before, the icebreaker serves to make the participants relax and get to know each other better in a new way.

- b. **Ethical issues were raised and deliberated upon.** Photography ethical procedures were discussed and deliberated with the participants and followed by setting ground rules. The rules include mutual respect for all participants, freedom of expression, no interruption when a participant is speaking, anonymity and confidentiality of all participants.
- c. The next step was introducing the participants to photovoice methodology: the origin, purpose, and alignment of photovoice with the aim and objective of the study.
- d. This is followed by training the participants on basic photography: how to operate a digital camera, introduction to parts of a camera, how to hold and handle the camera,

exposure triangle, and fundamental photography. Due to logistics, the researchers could only provide two cameras.

- e. Improvising – In the absence of enough cameras, participants were shown how to use their phones to capture events. Most participating adolescents are already familiar with using phone cameras to take photos. They were taught how to improve their photo-taking skills. Again, this confirms the presence of mobile phone activities in the rural learning environment.
- f. Training – With the aid of a laptop, the researcher shared different slides with participants, with a description of photovoice events; the significance and application of photovoice were also discussed. The training session lasted about 90 minutes, with a 15-minute break in between.
- g. Prompts – Guided by the research questions, participants responded to specific prompt provided by the researcher.

(The first two sessions were used to address the fundamentals, ask questions, and deliberate on ethical issues, while the third session was meant for the demonstration)

- **Photo Demonstration & Capture Process**

Sample photos were taken with permission within the school premises. Photos were shared and deliberated on, after which participants were given two weeks to take photos that best depict and represent the prompts/concepts. Participants in photovoice methods are co-researchers, they form part of the community change agents and are active data generators with the researcher. During the photo demonstration, participating adolescents were excited, motivated, and well-enlightened.

- i. **Focus Group Interviews**

A focus group interview is a qualitative research tool guided by a moderator to unravel participants' perspectives of a specific subject of interest (Sim & Waterfield, 2019:3004; Hammerschall, 2016:66). It is a group discussion involving the engagement of participants to deepen the understanding of the phenomenon under investigation (Nyumba, Wilson, Derrick & Mukherjee, 2018:20; Mishra, 2016:1).

Dilshad and Latif (2013:193) opined that focus group discussion could be a medium for the marginalised and minority groups in the community to express their needs and concerns. As a data collection tool, it can also be applied as a supplementary data source to develop programme intervention and data triangulation in mixed methods studies. To ensure consistency of the reports, the focus group sessions also helped validate some of the findings in the photovoice sessions, especially after two-week intervals.

- **Preliminaries**

Participants were welcomed to the agreed designated venue. The venue was the same as in the photo voice data collection sessions. It is chosen because of its convenience and centrality to all participants. The researcher welcomed the participants, gave a brief introduction, and recapped the purpose of the study, which was necessary after the initial two-week break. The researcher reassured participants of their confidentiality and anonymity and set the ground rules.

- **The Procedure: Pre-Interview**

The same group of adolescents that partook in the photovoice study was engaged in the focus group interviews. Mishra (2016:2) emphasized the benefits of employing a pre-existing group against a new group because (i) it saves time and removes recruitment barriers. However, the researcher ~~still~~ sought the consent of participating adolescents and their parents before the commencement of the interview, (ii) promotion of ongoing interaction within the group, since the group has been together before, they can build on their bonds and friendship. In this study, all participants showed up for the focus group discussion (iii) A pre-existing group promotes disclosure of possible stigmatisation; members can express their deep thoughts without reservations. Mishra (2016:5), in agreement with Dilshad and Latif (2013:193), postulated that focus groups can enhance mixed-method research, especially in data triangulation in explanatory sequential design involving quantitative and qualitative studies.

The focus group interview stages involve pre-interview, planning, interview, and post-interview data analysis (Mishra, 2016:5).

- **Criteria for Interview**

The interview followed the basic principles of focus group discussion: homogeneity and a specified topic (Nyumba *et al.*, 2018:22).

- i. Homogeneous Nature**

Homogeneity is a state of being of the same quality or trait. The participants are adolescents with the same shared interests. Adolescents are teenagers between the ages of 10-18 years old. These groups of people have common interests and easily form bonds together. They have their perspectives on life. Most adolescents exhibit the same/similar characteristics/ characters. This age of growth is when they develop common physical, emotional and psychological changes. Secondly, participating adolescents were selected from Senior Secondary Schools (SSS). These form the same age groups and class ranges. The third factor considered was the location of the participants. All adolescents were selected from the same rural community. They shared the same lived experience with similar daily challenges.

- ii. Specific Topic**

A focus group interview is a deliberation aimed at a specific topic (Hammerschall, 2016:66); as stated earlier in the study, this activity is meant to enhance the learning environment of cyberbullied adolescents in a rural community.

- iii. Interview Summary**

The researcher was a moderator during the interview sessions, including overseeing and facilitating the group. Below is an overview of the focus group discussion sessions.

Table 4.5: Interview summary

Number of participants	Number of sessions	Average Duration	Data Analysis
10 adolescents	3 until saturation	42 minutes	Thematic

iv. Semi-Structured Interview – Group

As stated earlier, this study is guided by a transformative paradigm that engages stakeholders within the community intending to bring positive change in society (Diercks *et al.*, 2019:881). It also emphasises the emancipation of the oppressed and socially marginalised communities or individuals by engaging stakeholders in dialogues (Phelps, 2020:1). According to Mertens (2017:21), a transformative paradigm supports and advocates for the contributions of stakeholders within the community; hence, the need to interview and engage relevant stakeholders in the community to foster a change and proffer a solution to the problems of the study.

- **Preliminaries**

This activity aims to have a semi-structured interview with 8 participants (adults) within the rural learning community of Ekiti State, Nigeria. The participants are direct stakeholders, including two (2) parents, two (2) principals, two (2) counsellors and two (2) teachers. The estimated time for the discussion is 46 minutes each.

- **Process/Procedures**

The transformative paradigm supports and advocates for stakeholders' contributions. Eight (8) stakeholders participated in the semi-structured interviews. The stakeholders included:

- two (2) principals directly involved in administrating day-to-day school activities;
- two (2) subject teachers who daily teach and interact with the students;
- two (2) counsellors, comprising a full-time counsellor, the second a librarian who also supports as a counsellor from the Junior secondary section, and
- two (2) parents who were members of the school Parent and Teachers Association (PTA) members who live in the community.

The two group semi-structured interviews with the stakeholders were held and lasted an average of 46 minutes. Both interviews were audio-recorded and transcribed verbatim (El Achhab, El Ammari, El Kazdough, Naidi, Berraho, Tachfouti, Lamri, El Fakir & Nejjari, 2016:4).

4.5.5 Data analysis procedures

Three different sets of data collected in the qualitative phase were analysed: the photo voice data, focus group data, and semi-structured interview data. The data enhances a better understanding of the phenomenon under investigation (Leavy, 2017:173).

4.5.5.1 Photovoice reflection analysis

Photos taken by the participants are jointly interpreted and analysed by both the researcher and the participants in line with photovoice participatory principles (Wang & Hannes, 2020:12; Baloyi-Mothibeli, 2018:96; Latz, 2017:4; Evans-Agnew & Rosemberg, 2016:1019). The discussion sessions were audio recorded and transcribed for further analysis with the participants; themes and sub-themes were identified and categorised.

Data collection and analysis in photovoice depend on the availability of the participants and the time frame (Manasia, 2017:455). In photovoice methodology, prompts are provided, a prompt refers to a guiding question, statement, or concept presented to participants to inspire their photographic documentation. The goal of prompts in photovoice is to elicit images that reflect participants' perspectives, experiences, and insights on a particular topic or issue of interest (Manasia, 2017:453). Guided by the research questions, participants were provided prompts and given two weeks to take one or two photos in their environment. Hence, after two weeks, the researcher and the participants converged to deliberate and interpret photos taken. Photos were taken with specific captions that best explain their stories. In photovoice, the investigator and participants are co-researchers (Bates, Ardrey, Mphwatiwa, Squire & Niessen, 2018:171).

According to Ronzi *et al.* (2016:733), photovoice data analysis is based on the participants' and researchers' perceptions and interpretations. Hence, the researcher facilitated the discussion by engaging the participants using "SHOWeD Mnemonic" photovoice data analysis (Witkowski *et al.*, 2021:225; Capous-Desyllas and Bromfield, 2018:4), interpreted as, "(i) what do you *see* here? (ii) what is really *happening*? (iii) how does this relate to *our lives*? (iv) *why* does this problem or strength *exist*? (v) what can we *do* about it? "*The session was audio recorded and transcribed for further analysis with the participants.* Both researchers discarded photos that didn't align with the theme of the study and the participants (Ronzi *et al.*, 2016:735).

4.5.5.2 Thematic Data Analysis: Focus Group and Semi-structure interviews

The focus group and the semi-structured interviews were analysed by thematic analysis. The data was analysed in stages, beginning with the transcription of each interview session (Van Eeuwijk & Angehrn, 2017:9). The tape-recorded interviews were transcribed verbatim (El Achhab *et al.*, 2016:4). The transcription was then coded in the sequence of occurrence. The researcher combined deductive and inductive coding to enhance the findings, aligning with Van Eeuwijk and Angehrn (2017:9), who suggest multiple coding maybe be applied in one study. The deductive codes were pre-themes formulated from the research questions, while the inductive themes emerged during the study. The researcher identified the patterns, similarities, and differences and made a data comparison (Van Eeuwijk & Angehrn, 2017:10).

According to Nowell *et al.* (2017:4), thematic data analysis follows six stages starting from data familiarisation: (i) submerging myself in the data through repeated reading and data engagement, making notes, and documenting and comparing discussion reflections; and (ii) generating preliminary codes. The researcher adopted Creswell and Plano Clark's (2018:373) three coding levels according to a flexible thematic analysis framework. I engaged in open coding by reading and re-reading the transcripts as often as possible to acquaint myself with the content. After this, I applied axial coding by identifying the categories and sub-categories that emerged. The third level is integration, where thoughts were linked to different categories: (iii) searching for themes, (iv) reviewing the themes, (v) defining and renaming the themes, and (vi) producing the report.

4.5.6 Ensuring quality check: qualitative phase

4.5.6.1 Trustworthiness

Trustworthiness is a process of ensuring data authenticity; it's a systematic procedure to ensure data legitimacy (Levitt, Bamberg, Creswell, Frost, Josselson and Suárez-Orozco, 2018:32). They are steps taken to convince readers data obtained are accurate and that findings reflect participants' opinions and originality (Nili, Tate & Johnstone, 2017:13). In qualitative studies, the following four criteria guide data trustworthiness: credibility, transferability, dependability, and confirmability (Creswell & Plano Clark, 2018:214; Pratt & Yezierski, 2018:417; Nowell *et al.*, 2017:3; Gunawan, 2015:10).

4.5.6.2 Credibility

Credibility is the process of establishing confidence in the study from readers' perspectives (Pratt & Yeziarski, 2018:417; Cypress, 2017:253). Scholars like Nowell *et al.* (2017:3) implied procedures for attaining data credibility: a lengthy engagement between the researcher and the participants. I spent ample time with all the participants; debriefing involves engaging others to access the data. I consulted with co-researchers to peer debrief and ascertain data collection and analysis processes. I also engaged data analyst input to verify the quantitative strand findings. Next was data triangulation – to ensure data triangulation, multiple data generation techniques were applied. I applied methods of triangulation with the use of questionnaires, photovoice, focus groups and semi-structured interviews.

4.5.6.3 Transferability

Transferability implies the transmission of research findings from a particular setting to another (Leavy, 2017:270; Nowell *et al.*, 2017:3). It is the systematic replica of research results from one context to another to benefit mankind (Schloemer & Schröder-Bäck, 2018:2; Leavy, 2017:155). Research results may be generalized to other environments if they fit similar settings and criteria (Leavy, 2017:270). Findings regarding cyberbullying among adolescents in cities and metropolitans have been transferred to different settings (Tanrikulu, 2018:74). However, this study focuses on creating an enabling learning environment for cyberbullied adolescents in rural communities. Hence, the findings could be juxtaposed in a similar rural context.

4.5.6.4 Dependability

Dependability entails assessing research findings, interpreting them, and drawing conclusions about respondents' perspectives (Moser & Korstjens, 2017:121). During the report, the researcher and the participants discussed and aligned the study's preliminary findings (Nahidi, Blignault, Hayen & Razee, 2018: 652).

4.5.6.5 Confirmability

Moser and Korstjens (2017:121) explain confirmability as the systematic procedure of corroborating the research process by others to ascertain data generated are derived from the study. Chung, Biddix and Park (2020:3300) stated that to ensure confirmability, the researcher should

make the research process explicit by giving a vivid account of how the study is conducted. Secondly, the research process could be an audit trail by other researchers; thirdly, co-researchers should be able to follow and replicate the process.

4.5.7 Evaluation criteria in explanatory sequential design

In mixed-method studies, the validation process is synonymous with quantitative studies. At the same time, trustworthiness applies to qualitative studies (Nowell *et al.*, 2017:3). Criteria for quantitative and qualitative form the basis for the study's evaluation report. To assess the evaluation criteria, I adopted three schools of thought to verify the study; firstly, Leavy's (2017:154-155) evaluation criteria argued that the following should be considered: (i) explicitness, which is given a detailed explanation of the methodology, (ii) stating the roles of the researcher, (iii) thoroughness - inclusiveness and extensiveness; (iv) congruence- deals with logic sequence and synchronization of the study. To ensure congruence, the study is conducted in two sequences. The sequence follows the completion of phase I, which leads to subsequent phase II (v) Innovation and credibility- implies the application of new knowledge or methodology or introduction of a new theoretical approach.

The second school of thought follows Creswell and Poth's (2018:259) validation process, stating validation should be examined from three lenses: (i) researcher's perspective- which is judged based on data triangulation, contradictory or salient findings, and expression of the researcher's biases (ii) participants perspective- assessed through member checking/ participants feedbacks, engagement with participants and participants' collaboration (iii) readers' perspective, this is based on all the criteria discussed.

The third school of thought is based on Fitzpatrick's (2019:214) validation recommendations: (i) long-term engagement with participants, (ii) thick description of the phenomenon under investigation, (iii) using triangulation to validate findings, (iv) finding discrepancies, (v) respondents' validation and (vi) debriefing.

In summary, the evaluation criteria discussed by Fitzpatrick (2019:214), Creswell and Poth (2018:259) and Leavy (2017:154-155) are interwoven; hence, to enhance the study, I integrated the three schools of thought.

4.5.8 Implementation of evaluation criteria in explanatory sequential design

Table 4.6 below indicates how the researcher implemented the criteria.

Table 4.6: Implemented criteria method

CRITERIA	Application of implementation strategy	Detailed Description
TRUSTWORTHINESS (Establishing authenticity)	-Member checking -Lengthy engagement with participants -Debriefing	Criteria for establishing trustworthiness
TRIANGULATION	Methods triangulation	Quantitative & Qualitative Strands. Explanatory Sequential Design
CREDIBILITY	Debriefing and Member checking	Debriefing - data analyst experts were engaged to verify the findings. Member checking - the researcher and participants assessed and interpreted data collectively.
Innovation & Creativity	Application of the photovoice methodology	Photovoice is a unique and novelty data collection tool suitable for rural settings. Photovoice is a unique and novelty data collection tool in Nigeria.
THICK DESCRIPTION	Description of the study components	A vivid account of the research and research settings
Role of the Researcher	Transformative approach	The researcher respects the values and cultural beliefs of the participants.

Congruence	deals with sequence, logic sequence	Systematic sequence. The study started with the Quantitative strand and led to the Qualitative strand.
Thoroughness	Explanations of the methodological approach	Inclusiveness and extensiveness; complete methodology.
Explicitness	Linking every part of the study together.	Clearly stating the research procedures.

4.5.9 Triangulation in explanatory sequential design

Triangulation is the process of integrating multiple data sources in a single study to answer the research question (Ralebese, 2019:64; Leavy, 2017:153). Data triangulation in explanatory sequential design (ESD) entails integrating two or more data to enhance and enrich the study (Cohen *et al.*, 2018:39; Leavy, 2017:181). The following data were integrated: the survey questionnaire in the quantitative phase, the photo voice, focus group, and semi-structured interviews collected during the qualitative phase. The quantitative results are linked to the qualitative findings and triangulated. According to Creswell and Plano Clark (2018:231), data triangulation in explanatory sequential design could be implemented during the interpretation and discussion stage. In ESD, data analysis could either be a side-by-side comparison or independently explained (Leavy, 2017:183). Hence, the preliminary result in the quantitative phase is connected, explained, and elaborated using the qualitative findings.

4.6 ETHICAL CONSIDERATIONS

In mixed methods research, ethical procedures are guided by the study's philosophical assumptions based on the transformative paradigm worldviews as applied to this research (Creswell & Creswell, 2018:125, 133; Leavy, 2017:24-25). Ethical considerations are systematic guidelines that the researcher uses to mitigate risks before, during, and after the research process (Creswell and Creswell, 2018:100). They are measures taken to ensure the study does not infringe on the rights of the participants and that it is done in the right way (Leavy, 2017:157). According to Creswell and Poth (2018:48), ethical consideration procedures can be summarised into two steps: getting approval from the appropriate authorities and preparing for and addressing emergent

ethical issues that may present themselves in the course of the study, which is important for the researcher to plan ahead and address all the ethical problems before commencing the study. The researcher employed the following ethical guidelines.

4.6.1 Approval by authorities and gatekeepers

The University of the Free State (UFS), General/Human Research Ethics Committee (GHREC), South Africa, approved the study (UFS-HSD2019/1688). The researcher also sought the approval of the Ekiti State Ministry of Education, Science, and Technology, Nigeria. The Ministry of Education in Nigeria is saddled with the regulations, policymaking and supervision of teachers, teaching and learning. Thirdly, the study was approved by the State Teaching Service Commission (TSC), Ekiti State, Nigeria (see appendix). The TSC is an independent body under the Ministry of Education. It deals directly with teachers' postings, ethics, salaries, and promotions.

4.6.2 Informed consent and voluntary participation

Informed consent is a written document explaining the roles of intending participants before the commencement of a study, what the research is about and how it will be carried out (Creswell & Poth, 2018:55). In practice, the researcher explained in detail the aim and purpose of the research, and why the participants are invited. In transformative worldviews, participants are viewed as co-participants; hence, they are invited to partake in the study. In addition, adolescents, their parents, and the stakeholders distributed and signed informed consent forms. Similarly, voluntary participation informs the participants' right to participate in the research and to withdraw at any time (Sekonyela, 2019:95). Participants in the study were neither coerced nor compelled or forced; each participated voluntarily.

4.6.3 Confidentiality and anonymity

All information provided was treated confidentially. The researcher kept participants' identities anonymous by adopting and assigning pseudonyms. Their names were not mentioned, nor was the data collected linked to any participant. Photos taken during Photovoice sessions were blurred from facial recognition, while audio recordings of focus group and semi-structured interviews were transcribed and coded.

4.6.4 Protection against harm

Qualitative studies involve asking pertinent questions; hence, the participants should be protected against harm and unforeseen dangers (Creswell & Creswell, 2018:178). Researchers must ensure adequate protection of all participants against any form of physical, emotional, or psychological harm (Kivunja & Kuyini, 2017:28). To avoid unforeseen circumstances, the researcher provided names and contact details of the study leader and counselling psychologists on the consent forms. Hard copies of data collected are stored in a locked cupboard for a future research period of five years, while electronic data is password-protected and stored in the cloud.

4.7 CONCLUSION

The above chapter presents the research design and methodology. The researcher adopted a mixed-methods design guided by the transformation paradigm worldview; specifically, explanatory sequential design (ESD) was implemented in the study. This approach entails the administration of an initial quantitative phase, followed by the qualitative phase. In the qualitative phase, three data collection tools were employed: photovoice, focus groups, and semi-structured interviews. The next chapter expands on the study's findings, analysis, and interpretation. The chapter is structured and organised in accordance with the research questions. In sum, the quantitative and the qualitative result of the study is presented and integrated.

CHAPTER 5

PRESENTATION OF FINDINGS, ANALYSIS, AND INTERPRETATION

5.1 INTRODUCTION

As discussed in the methodology chapter, the researcher employed a mixed method research design, specifically an explanatory sequential design, to answer the research questions, which entails the administration of a quantitative phase followed by a detailed qualitative approach. Chapter five presents both the quantitative and qualitative findings of the study. The findings are presented in sequence; the quantitative findings comprise the survey results, followed by the qualitative findings of the photovoice, focus group discussions and semi-structured interviews. In explanatory sequential design, the qualitative phase is meant to deepen the study by explaining some key findings in the quantitative phase (Cohen *et al.*, 2018:45). The study comprises five research questions; two questions were answered in the quantitative section, while five questions were answered in the qualitative section. The findings were integrated and explained in the discussion chapter.

5.2 RESEARCH QUESTIONS

The following research questions are formulated to guide the study.

5.2.1 Primary research question

How can the learning environment be enhanced for cyberbullied adolescents (CBA) in a rural ecology (RE)?

5.2.2 Secondary research questions

1. What do adolescents in a rural environment understand as cyberbullying?
2. Which factors contribute to adolescents' cyberbullying in a rural environment?
3. How do adolescents perceive an enabling learning environment?
4. What are the threats to the enabling learning environment of cyberbullied adolescents?

5. How can we enhance the learning environment of cyberbullied adolescents in a rural environment?

5.3 RESEARCH AIM AND OBJECTIVES

5.3.1 Research aim

This study aims to design a strategy that enhances the learning environment of cyberbullied adolescents in a rural ecology.

5.3.2 Research objectives

To achieve this aim, the following objectives are set:

1. To investigate what adolescents understand as cyberbullying in a rural environment.
2. To evaluate the factors contributing to adolescents' cyberbullying in a rural environment.
3. To examine adolescents' perspectives of an enabling learning environment.
4. To determine the threats to an enabling learning environment of cyberbullied adolescents in a rural environment.
5. To explore how to enhance the learning environment of cyberbullied adolescents in a rural environment.

5.4 QUANTITATIVE PHASE I: PRESENTATION OF QUANTITATIVE RESULTS AND INTERPRETATION

This section presents the quantitative results of the study. Data from secondary research questions 1 and 3 are presented and descriptively analysed. The results comprise demographic statistics, adolescents and cyberbullying, rural environment, enabling learning environment item analysis, chi-square test and correlation analysis.

5.4.1 Descriptive analysis

5.4.1.1 Demographic results

a) Item 1: Gender statistics

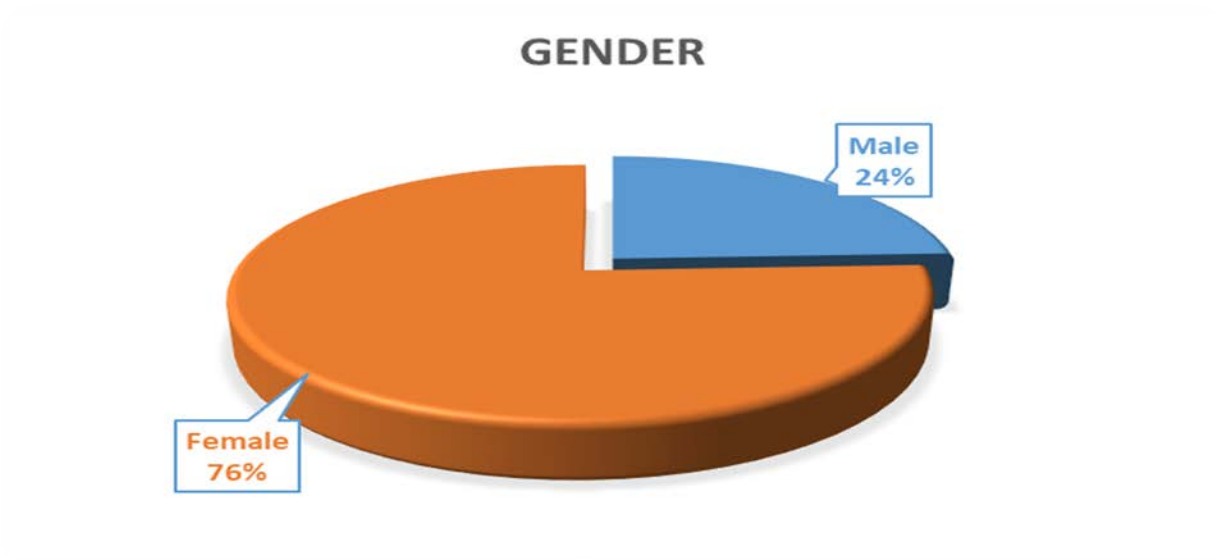


Figure 5.1: Gender statistics

Most participants (76%) are female, while the remaining 24% are male. These findings indicate that we have more female students in the rural environment. This may imply that more female adolescents have access to secondary school education, and by implication, more female students may be exposed to cyberbullying in the rural learning environment.

b) Item 2: Age group

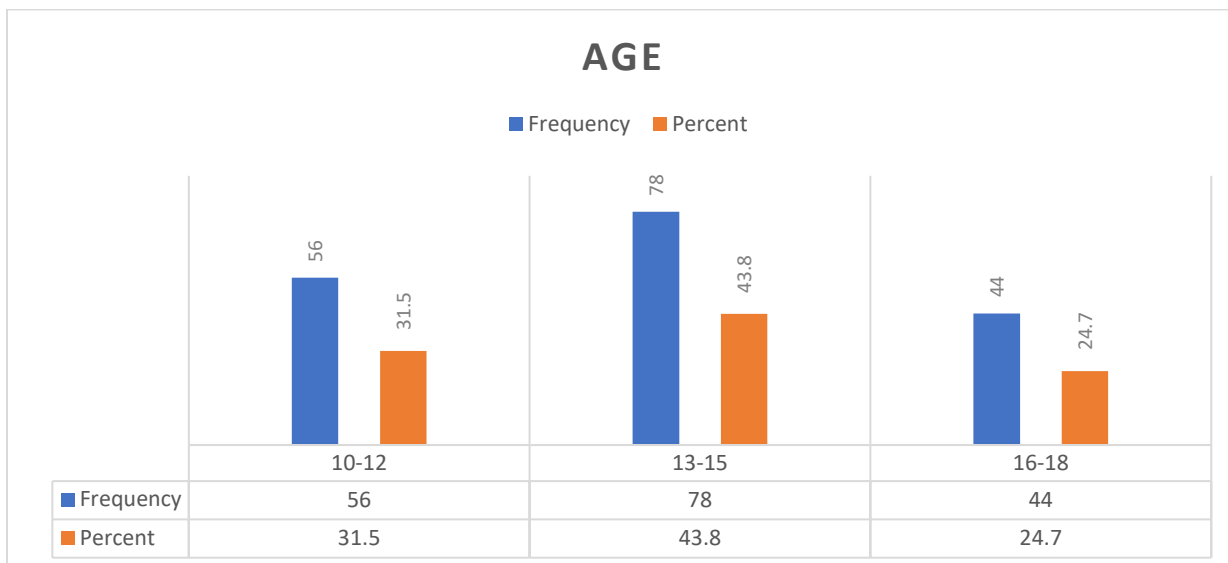


Figure 5.2: Age group

Figure 5.2 shows that the age group 13-15 comprises 43.8% of the participants, followed by 31.5% and 24.7% between the ages of 10-12 and 16-18, respectively.

c) Item 3: Grade levels

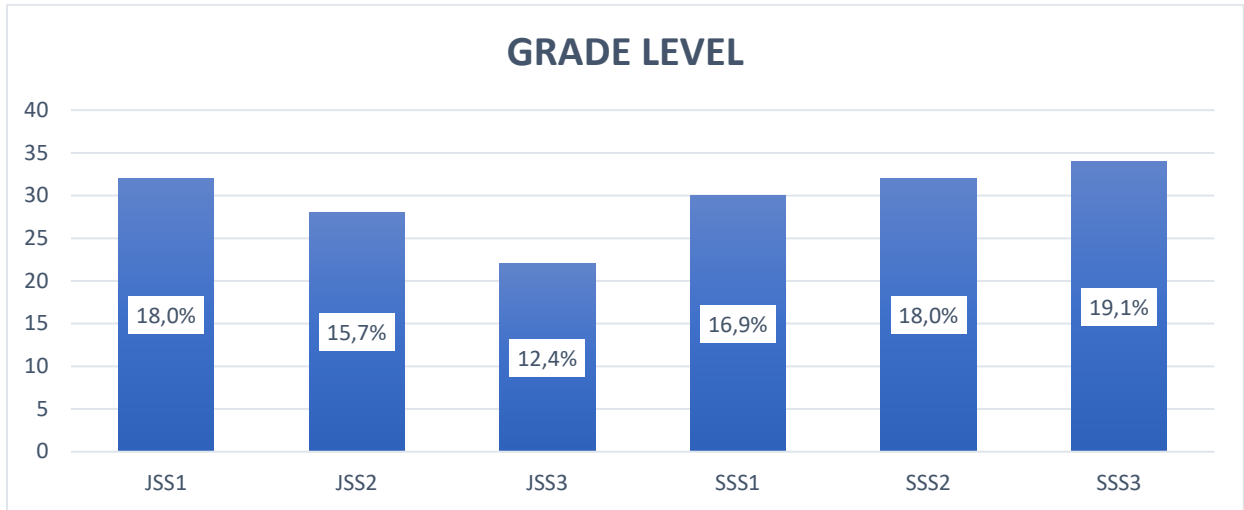


Figure 5.3: Grade levels

The grade level of the participants is fairly distributed across the range of 12.4% to 19.1%.

The school is stratified into Junior Secondary School (JSS) and Senior Secondary School (SSS).

The JSS is categorised into three classes: JSSI, JSSII and JSSIII. Also, the SSS is classified into SSSI, SSII and SSSIII.

5.4.2 Secondary Research Question 1: What do adolescents in a rural environment understand as cyberbullying?

The following variables (concepts), “rural environment” and “cyberbullying”, are presented and analysed under the secondary research question one. Also analysed are the cross-tabulation of hours spent on social media platforms, the chi-square test and the relationship between rural environment and cyberbullying.

Table 5.1: Rural learning environment

Rural Environment	Yes	No
A rural environment is a socially marginalised community	90.4%	9.6%
Do you have access to the internet in your area	91.0%	9.0%
Have you heard of cyberbullying in your school?	70.2%	29.8%
Are there any reported cases of cyberbullying in your community?	64.0%	36.0%
Do you know anyone who has been bullied in your school?	58.4%	41.6%

Table 5.1 shows that 90.4% agreed that the rural environment is a socially marginalised community, while 9.6% disagreed. Also, 91.0% stated they have internet access, while 9.0% said No. 70.2% of respondents affirmed that they've heard of cyberbullying in their school. 29.8% differs. 64.0% confirmed reported cases of cyberbullying in their community, 36.0% said no, 58.4% declared they were aware of bullying incidents in their school, and 41.6% disagreed.

By implication, most of the students do understand the concept of a rural environment; in addition, they attest to the presence of an internet network in the community; this suggests that despite living in a deprived environment, adolescents in this rural environment have access to social networking sites.

Table 5.2: Adolescent & cyberbullying item analysis in percentages

Item		%	
4	Have you heard about cyberbullying?	Yes	89.3%
		No	10.7%
5	Cyberbullying signifies an act of intimidation	Yes	88.2%
		No	11.8%
6	Cyberbullying constitutes an act of oppression	Yes	81.5%
		No	18.5%
7	Cyberbullying is committed via electronic mediums such as text messages, email, online chatrooms or social networking sites	Yes	91.0%
		No	9.0%
9	Have you experienced online bullying?	Yes	55.6%
		No	42.1%

		Preferred not to say	2.2%
10	Do you know anyone who has been bullied online?	Yes	62.9%
		No	35.4%
		Preferred not to say	1.7%
11	Have you ever had any negative experiences with anyone online?	Yes	59.0%
		No	33.7%
		Preferred not to say	7.3%

Table 5.2 shows that 89.3% of the participants have heard about cyberbullying, while the remaining 10.7% have not. Also, 88.2% agreed that cyberbullying signifies an act of intimidation, while 11.8 disagreed. 81.5% said cyberbullying constitutes an act of oppression, while 18.5% said No. 91.0% stated that cyberbullying is committed via electronic mediums such as text messages, email, online chatrooms, or social networking sites; 9.0% disagreed. 59.0% indicated they had a negative experience online, but 33.7% stated otherwise. 55.6% opined they'd been bullied online, 42.1% said No, while 2.2% preferred not to say. 62.9% indicated they knew someone who had been bullied online.

Table 5.3: Social media cross-tabulation

Item 8		% Do you browse or chat on social media?				
		If yes, how many hours do you spend daily?				Total
		Never	2hrs-4hrs	4hrs-8hrs	9hrs or more	
Do you browse or chat on social media?	Yes	2.1%	79.5%	16.4%	2.1%	100.0%
	No	81.3%	12.5%	6.3%		100.0%
Total		16.3%	67.4%	14.6%	1.7%	100.0%

Table 5.3 shows that more than 79% of the participants who browse or chat on social media spend at least two or four hours daily. The table also indicates that 16.4% spend between 4hrs-8hrs per day on social media. At the same time, 2.1% spent over 9 hours or more on social media.

Table 5.4: Chi-square tests -indicating the association between time and social media

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	121.017 ^a	3	.000
Likelihood Ratio	99.228	3	.000
Linear-by-Linear Association	60.655	1	.000
N of Valid Cases	178		

a. 3 cells (37.5%) have an expected count of less than 5—the minimum desired count is 54.

Table 5.4 shows that the association between social media and the number of hours spent is statistically significant; this is indicated by the p-value of 0.000, which is below the threshold of 0.05.

Table 5.5: Frequency count and percentages of social media platforms

Social Media Platforms		Responses		Per cent of Cases
		N	Per cent	
Which of the following social media platforms do you use?	Facebook	134	72.0%	75.3%
	Twitter	4	2.2%	2.2%
	YouTube	5	2.7%	2.8%
	Instagram	8	4.3%	4.5%
	All	8	4.3%	4.5%
	None	27	14.5%	15.2%
Total		186	100.0%	104.5%

a. Dichotomy group tabulated at value 1.

Table 5.5 shows that out of 186 multiple responses, Facebook appeared 134 (72%) times as the most used social media platform. Other social media platforms such as Twitter, YouTube, and Instagram appeared four (4) times (2.2%), five (5) times (2.7%) and eight (8) times (4.3%), respectively.

Table 5.6: Age cross-tabulation of social media platforms

		Age			Total
		10-12	13-15	16-18	
Social Media Platforms	Facebook	42	57	35	134
	Twitter	0	1	3	4
	YouTube	0	3	2	5
	Instagram	1	4	3	8
	All	1	4	3	8
	None	13	11	3	27
Total		56	78	44	178

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Table 5.6 indicates that ages 13-15 use social media (Facebook) platforms more than other age groups, also representing the highest age group that engaged in social media in rural areas. 10-12 years (56 respondents), 13-15 (78 respondents) and 16-18 years (44 respondents).

Table 5.7: Gender cross-tabulation of social media platforms

		Gender		Total
		Male	Female	
Social Media Platforms	Facebook	31	102	133
	Twitter	0	4	4
	YouTube	1	4	5
	Instagram	3	5	8
	All	3	5	8
	None	6	21	27
Total		43	134	177

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

Table 5.7 indicates high female population representatives and engagement of social media platforms in the rural area. of the 177 gender cross-tabulation respondents, 134 are females, while 43 are males.

5.4.3 Secondary Research Question 3: How do you perceive an enabling learning environment?

Table 5.8: Enabling learning environment

Enabling learning environment		Multiple Responses		Per cent of Cases
		N	Per cent	
What do you understand as an enabling learning environment?	A space of positive interaction between a learner and the environment	80	34.6%	46.0%
	A place of acceptance for all learners	39	16.9%	22.4%
	Where learners' potential can be enhanced	29	12.6%	16.7%
	A friendly environment for teaching and learning	80	34.6%	46.0%
	None of the above	3	1.3%	1.7%
Total		231	100.0%	132.8%
a. Dichotomy group tabulated at value 1.				

Table 5.8 shows that out of 231 multiple responses (100%), 34.6% agreed that an enabling learning environment is a space of positive interaction between a learner and the environment, 16.9% stated it is a place of acceptance for all learners, 12.6% believe that it is where learners' potentials can be enhanced, while 34.6% suggested that it is a friendly environment for teaching and learning, a minority 3% do not support either option.

Table 5.9: Analysis of secondary research question 3

Enabling Learning Environment*Age Crosstabulation						
		Age			Total	
		10-12	13-15	16-18		
Enabling learning environment	A space of positive interaction between a learner and the environment	23	43	14	80	
		41,8%	55,8%	33,3%		
	A place of acceptance for all learners	7	24	8	39	
		12,7%	31,2%	19,0%		
	Where learners' potential can be enhanced	8	14	7	29	
		14,5%	18,2%	16,7%		
	A friendly environment for teaching and learning	30	28	22	80	
		54,5%	36,4%	52,4%		
	None of the above	1	2	0	3	
		1,8%	2,6%	0,0%		
	Total		55	77	42	174
	Percentages and totals are based on respondents.					
a. Dichotomy group tabulated at value 1.						

Table 5.9 shows the answers to secondary research question 3 based on the age division of the participating adolescents, i.e., how do adolescents perceive an enabling learning environment?

Of the 174 multiple responses, 55 were between the age groups 10-12, 77 (ages 13-15), and 42 (ages 16-18), respectively. Out of 80 respondents, 10-12 years (41.8%), 13-15 years (55.8%) and 16-18 years (14%) agreed that enabling a learning environment is a space of positive interaction between a learner and the environment.

Also, out of 39 respondents, 10-12 years (12.7%), 13-15 years (31.2%), and 16-18 years (19.0%) suggest that enabling a learning environment is an acceptable place for all learners.

Furthermore, 29 participants agreed that enabling learning environment is a place where learners' potentials can be enhanced; this is indicated by 10-12 years (14.5%), 13-15 years (18.2%), and 16-18 years (16.7.0%).

Similarly, 80 respondents between 10-12 years (54.5%), 13-15 years (36.4%), and 16-18 years (52.40%) expressed that enabling a learning environment is a friendly environment for teaching and learning.

5.4.4 Correlation analysis

Does the rural environment have a relationship with cyberbullying?

H₀: Rural environments are not associated with cyberbullying

H₁: Rural environments associated with cyberbullying

To test the hypothesis, Pearson's correlation was performed, and the result is presented as follows:

Table 5.10: Correlation analysis results

Correlations				
			Rural Environment	Adolescent and Cyberbullying
Spearman's rho	Rural Environment	Correlation Coefficient	1,000	.462**
		Sig. (2-tailed)		0,000
		N	178	178
	Cyberbullying	Correlation Coefficient	.462**	1,000
		Sig. (2-tailed)	0,000	
		N	178	178
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 5.10 shows a moderate positive relationship between rural environment and adolescent cyberbullying with a p-value of 0.000 and a correlation coefficient of 0.462. As a result, the null hypothesis is rejected. By implication, a statistically significant relationship exists between the rural environment and adolescent cyberbullying.

5.5 QUALITATIVE PHASE II: PRESENTATION OF QUALITATIVE RESULTS AND INTERPRETATION

This section shares a recap of the study overview, showing the links and connections between the aim and objectives of the study, the theoretical framework, the research paradigm, and the methodology to answer the research questions.

5.6 PRESENTATION OF QUALITATIVE INTEGRATED FINDINGS

The following themes were identified regarding the research questions.

RESEARCH QUESTION 1: What do adolescents in a rural environment understand as cyberbullying?

1. Theme 1: The concept of cyberbullying from a rural learning environment context.
2. Sub-theme 1: Misuse of cell phones in rural school setting
3. Sub-theme 2: Committing cyber frauds through the electronic devices

RESEARCH QUESTION 2: Which factors contribute to adolescents' cyberbullying in a rural environment?

1. Theme 1: Causes of cyberbullying in the rural learning environment.
2. Sub-theme 1: Contributing factors to cyberbullying in the rural learning environment.

RESEARCH QUESTION 3: How do adolescents perceive an enabling learning environment?

1. Theme 1: Enhanced learning environment.
2. Sub-theme 1: Enhanced physical environment.
3. Sub-theme 2: Enhanced psychological and emotional environment.

RESEARCH QUESTION 4: What are the threats to enabling the learning environment of cyberbullied adolescents?

Theme 1: Threats to enabling learning environment in the rural community.

1. Sub-theme 1: Physical threats to an enabling learning environment.
2. Sub-theme 2: Psychological and emotional threats to an enabling learning environment.
3. Sub-theme 3: Hindrances to an enabling learning environment.

RESEARCH QUESTION 5: How can we enhance the learning environment of cyberbullied adolescents in a rural environment?

1. Theme 1: Improving the learning environment of cyberbullied adolescents in a rural community.
2. Sub-theme 1: Enhancing the learning environment of cyberbullied adolescents.

5.7 PRESENTATION OF QUALITATIVE RESULTS AND INTERPRETATION

Following the research aim and objectives of the study, deductive and inductive themes were generated to guide the study. Deductive themes were formulated prior, while inductive themes emerged during the interview sessions. The qualitative phase is divided into three parts: the study overview, the data analysis results – which comprises the three different data generated (photovoice, focus group discussions, and semi-structure interviews), and the integrated findings.

In this chapter, the multiple data collected in the qualitative phase are presented in the following sequence. Firstly, I presented the findings of the photovoice, focus group, and semi-structured data. It is worth noting that some emergent sub-themes re-occurred across the three data; this shows emphasis and provides an in-depth knowledge of the phenomenon under investigation. Secondly, to answer the research questions, I synchronised the findings (photovoice, focus group, and semi-structured data); the three results were integrated and presented in detail according to the research aim and objectives of the study.

As stated in chapter four, the same group of adolescents that partook in the photovoice sessions were engaged in the focus group interviews. Mishra (2016:2) emphasised the benefits of employing a pre-existing group against a new group (see section 4) for the advantages of the pre-existing group). Though they were in the same group, no participant attrition was recorded; all ten

adolescents participated in both the photovoice sessions and focus group interviews. This may also indicate the participants' interest in the study. In addition, it also serves two purposes: it helps triangulate the data and establishes the trustworthiness of the study (Levitt *et al.*, 2018:32; Mishra, 2016:5; Dilshad & Latif, 2013:193).

5.7.1 Study overview

5.7.1.1 Research aim and objectives



Figure 5.4: Research Aims and Objectives

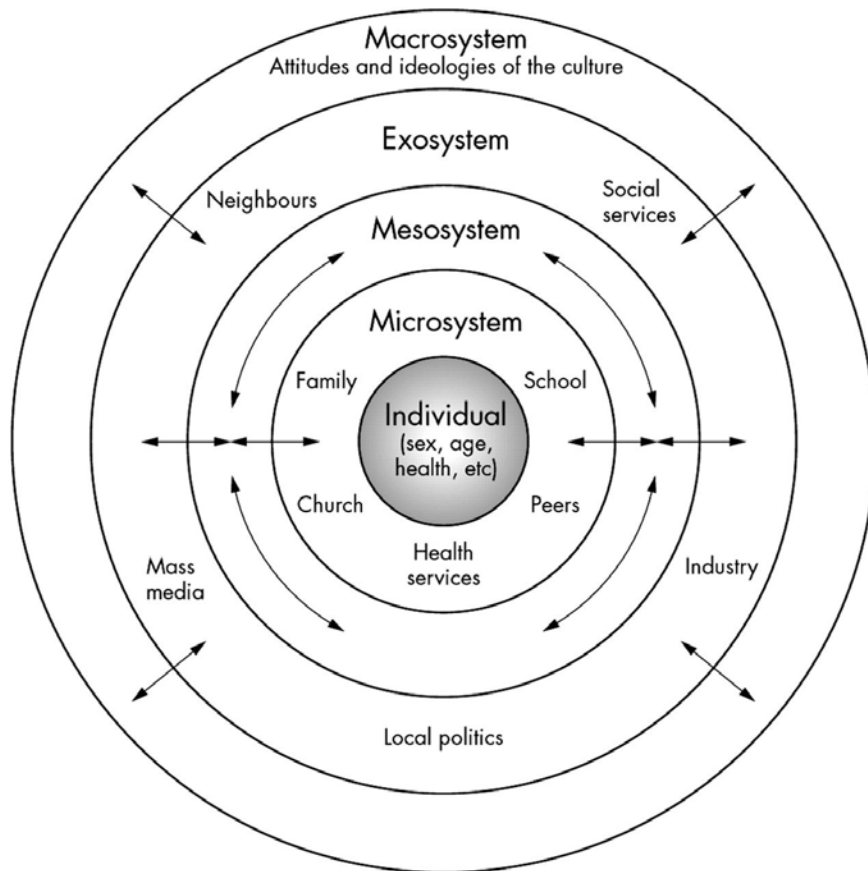


Figure 5.5: Theoretical framework

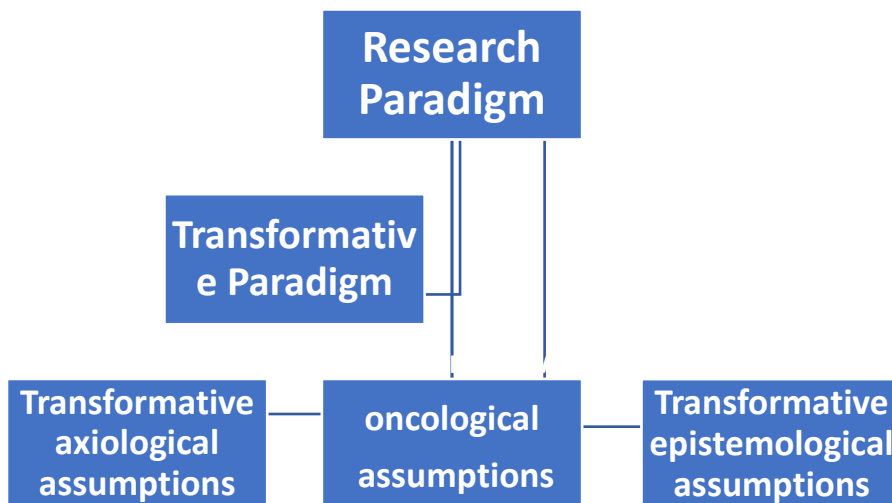


Figure 5.6: Research paradigm

5.7.1.2 Methodology-Mixed Methods

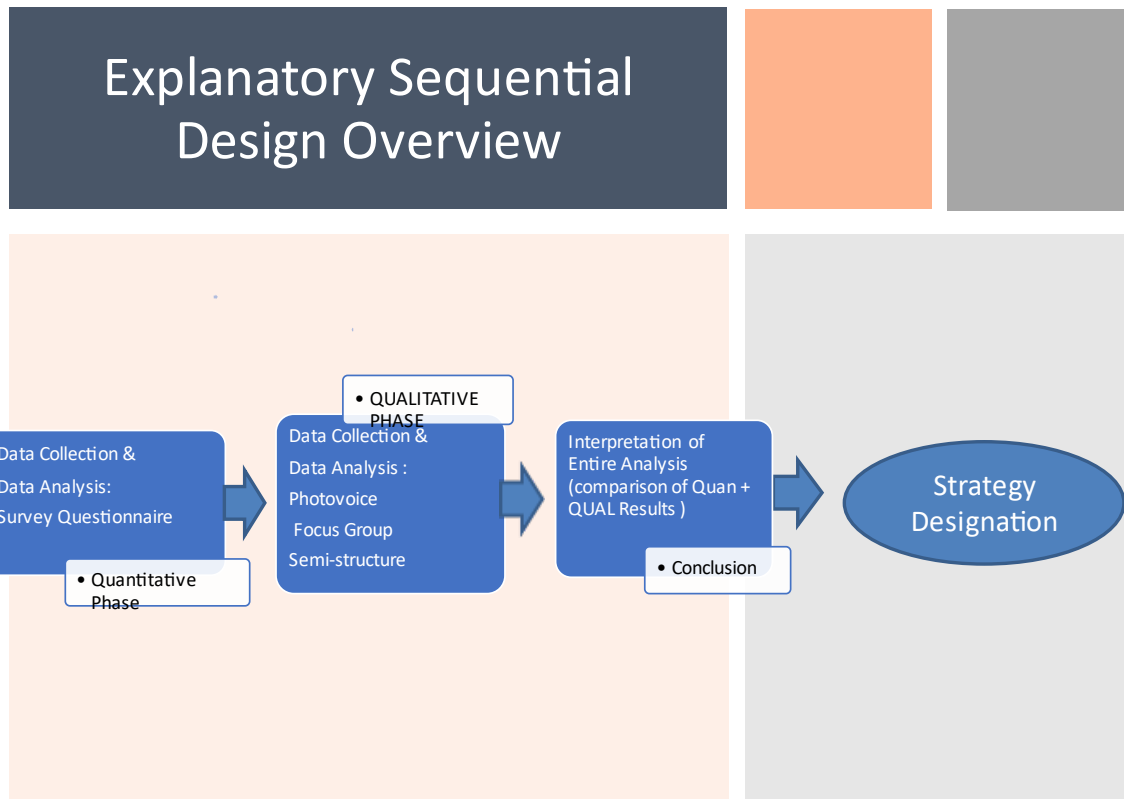
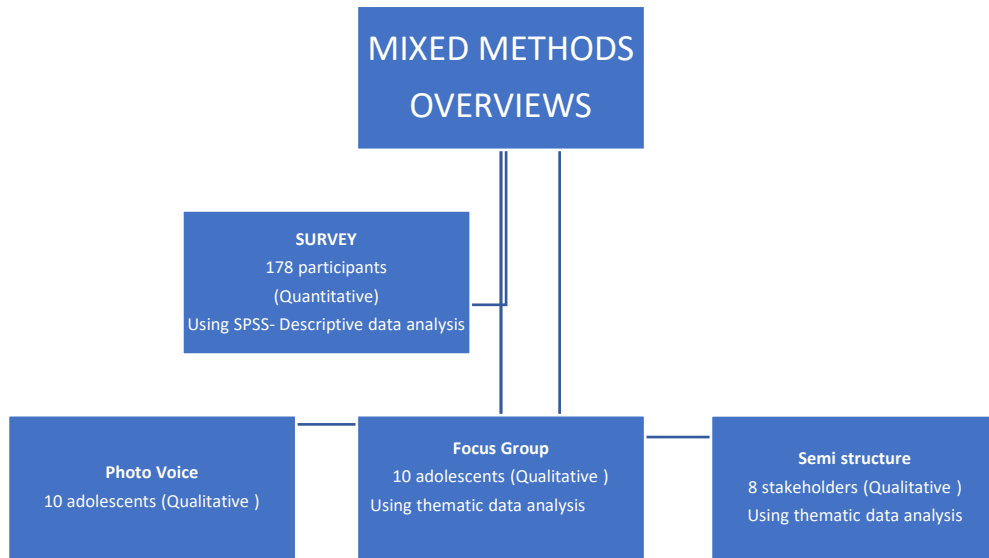


Figure 5.7: Explanatory Sequential Design Overview (Adapted from Wariri et al., 2020:3)

5.8 QUALITATIVE DATA GENERATION PROCEDURES

This section presents the results of the different data generated qualitatively for the study.

5.9 QUALITATIVE DATA ANALYSIS RESULTS

5.9.1 Photovoice reflections, focus group discussion and semi-structure interviews data analysis

The results of the qualitative data are presented and synchronised to answer the research questions. Below are deductive and inductive themes that emerged from the photovoice's group reflection sessions (see table 5.11), the focus group discussion (see table 5.12) and semi-structure interviews data (see table 5.13).

5.10 PRESENTATION OF QUALITATIVE INTEGRATED FINDINGS

The study aims to design a strategy that enhances the learning environment of cyberbullied adolescents in rural ecology. In this section, three qualitative data were integrated to answer the research questions. These include the photovoice interactive sessions, focus group discussions, and semi-structured interview sessions.

5.10.1 Research Question 1: What do adolescents in a rural environment understand as cyberbullying?

RESEARCH OBJECTIVE 1: To investigate what adolescents understand as cyberbullying in a rural environment.

To answer research question 1, the following theme and sub-themes emerged from the qualitative data:

- Theme: The concept of cyberbullying from a rural learning environment
- Sub-theme 1 : Misuse of cell phones in rural school setting
- Sub-theme 2 : Committing cyber fraud through electronic devices

5.10.1.1 *Theme 1: The concept of cyberbullying from a rural learning environment context*

The main theme is centred on participants' (adolescents and stakeholders) understanding of cyberbullying and their shared experiences of cyberbullying activities in the rural learning environment. The primary focus was to investigate what adolescents in the rural area understand as cyberbullying and compare it with stakeholders' perceptions of cyberbullying. Two sub-themes emerged from the main theme; the photovoice and focus group results were complementary findings; hence, the sub-themes were harmonised while the semi-structured data was a distinct finding.

Sub-theme 1: Misuse of cell phones in rural school setting

- **Photovoice (PV) and Focus Group (FG)**

Theme 1, sub-theme 1, explains adolescents' understanding of cyberbullying from the rural concept.

- **Photovoice**

In response to Research Question 1 : What do adolescents in a rural environment understand as cyberbullying? Four participants responded to the prompt below :

- Take a photo or two that best depicts cyberbullying in your environment. Thereafter, write a caption and narrate your story.

Participant 2 (Smiling A) : Photovoice photograph



Figure 5.8: Wrong use of phone in the classroom

Participant 2 (Smiling A): *“To my understanding, cyberbullying is the wrong use of phones in the learning environment, such as in the classrooms, when lessons are going on. Most students using phones usually use them to intimidate others who can’t afford one or whose parents do not provide phones. Students without phones don’t feel they belong because sometimes they make jest of them and taunt them on social media. They don’t even know this until they are told by their friends who have phones. So, they are discriminated against and bullied on social media. Sometimes, if there is an issue or argument between someone with a phone and those without a phone, the students with phones would go online and post nasty comments about the students”*

Participant 6 (Vivian): Photovoice photograph



Figure 5.9: Unregulated phone use in the classroom

Participant 6 (Vivian): *Phone is not allowed in the classrooms or in the school premises. However, we can see fellow students operating phones with their friends. I think that to stop cyberbullying in the learning environment, there should be proper regulation and monitoring because most students that are bullied complained it happened during school hours.*

Participant 7 (Chukwuma): Photovoice Photograph



Figure 5.10: Distraction in the learning environment

Participant 7 (Chukwuma): *I see cyberbullying as distraction in the learning environment. Students are supposed to get serious with their study during school hours, however, they are busy with phones. If the hours spent on chatting on phones are utilized properly, it will assist in getting the best out of their studies. So, I see use of phone in the school premises contributing to cyberbullying and causing distraction to the learning environment.*

Participant 4 (Treasure): Photovoice photograph



Figure 5.11: Power Imbalance

Participant 4 (Treasure): *The meaning of cyberbullying to me means using phones to oppress or intimidate fellow students, especially students without phones. In this photo, only one student possesses the phone; however, fellow students who cannot afford phones join to watch the movies. I see cyberbullying as power imbalance between the students' using phones and those who can't afford phones. Students without phones most often feel less to them; they feel as if they are missing something on social media. As a result, they join their friends. In addition, this also shows the power of peer influence among adolescents.*

Adolescents living in rural areas expressed a unique understanding of cyberbullying. This may be associated with their encounters within the community, as some participants stated, “according to my understanding.” Adolescents in the rural learning environment opined that cyberbullying is an act of oppression or intimidation, especially towards students without phones (Photovoice, participant 4); this may be true because not all students use phones in the rural environment. This claim was also supported by one of the participants, who stated that students with phones have many friends compared to those whose parents could not afford phones. Also, there's a power imbalance between students with phones and those without phones in rural areas. As stated by participant 4 (photovoice), students operating phones post offensive remarks about those without

phones; similarly, those using phones post nasty comments against each other. When asked what cyberbullying is, below are extracts from the participants.

P3(FG): *“According to my understanding, cyberbullying is the act of harassing another person with the use of the internet.”*

P4(FG): *“Cyberbullying simply means harassment and intimidation using the internet”*

P5(FG): *“Discriminating and harassing people through the use of the internet, such as Facebook, Instagram, etc.”*

P2(FG): *“When we are talking about cyberbullying, it simply means aggression towards others through the use of social media, such as Facebook, to abuse our fellow students.”*

From the above extracts, the following are some keywords adolescents in the rural environment use to express cyberbullying, aggression, harassment, intimidation, oppression, and discrimination through phones, the internet or social media platforms like Facebook or Instagram. The below extract explains participants' opinions regarding the discrimination between those who operate phones and those who do not.

P2(PV): *“... students with phones usually have many friends because other students just want to be friends with them ... Students without phones don't feel they belong because sometimes they make jest of them and taunt them on social media. They don't even know this until they are told by their friends who have phones. So, they are discriminated against and bullied on social media. Sometimes, if there is an issue or argument between someone with a phone and those without a phone, the students with phones would go online and post bad comments about the students.”*

A critical look at the above photos (Fig. 5.17, 5.18, 5.19 and 5.20) indicated that adolescents gather around a student who operates a phone. This may support the claims of the adolescent who expressed concern that adolescents without phones do not feel they belong as fellow students discriminate against them.

The above data show that adolescents in the rural environment have demonstrated a significant understanding of cyberbullying; however, from the above extracts, none of the participants stated the intentions behind cyberbullying, though participants said cyberbullying is aggression,

harassment, intimidation, oppression and discrimination through the internet; the intentions behind cyberbullying was not stated possibly suggesting that, though adolescents in the rural environment do demonstrate a significant understanding of cyberbullying; however, they do have limited knowledge of the concepts of cyberbullying. And this may also suggest why some adolescents in the rural environment post indiscriminately for fun. According to scholars, cyberbullying is intentional oppression, aggression, intimidation or harassment towards a victim (Newlin *et al.*, 2019:329). There is always an intent behind cyberbullying, which in most cases is to oppress or intimate the victims. Secondly, they failed to establish the repeated nature of cyberbullying. Cyberbullying isn't just a once-off act; it is done repeatedly and recurrently with a motive to hurt the victims.

Sub-theme 2: Committing cyber frauds through the electronic devices

- **Semi-structure interviews**

Theme 2, sub-theme 2, expresses stakeholders' views of cyberbullying. The stakeholders include two (2) subject teachers who teach the students regularly, two (2) counsellors, two (2) school administrators – one principal and one vice principal and two parents from the school's Parent Teacher Association (PTA) representing the junior and senior high schools.

The view of the stakeholders regarding the concept of cyberbullying contradicts the opinions of adolescents. The stakeholders viewed cyberbullying as committing cyber fraud through the internet. This premise might suggest that they don't understand the concept of cyberbullying or attribute it to frequent cybercrimes committed by some Nigerian youths (Campbell *et al.*, 2019:396). Below are some of the extracts from the stakeholders:

P4(SS): *“Cyberbullying is a cybercrime committed on the internet to dupe innocent victims. It is using the internet to deceive and dupe people of their money. Many adolescents in our society are involved in this line of business. They have duped and extorted innocent victims online.”*

P3(SS): *“Cyberbullying involves using the internet to commit financial fraud. Hacking people's accounts to make money. It is one of the ways our youths and adolescents are making money nowadays.”*

P6(SS): *“Cyberbullying is the illegal use of the internet to perpetrate a fraud on people’s accounts. It involves using the internet to deceive people so that they parted with their monies unknowingly.”*

P7(SS): *“Cyberbullying involves scamming people, using the internet to scam and trick people.”*

P8(SS): *“Many of our adolescents are involved in cyberbullying today. It entails using the internet or phone to dupe ladies online and blackmail them of their money.”*

The above statements indicate that most of the stakeholders in the rural environment do not understand the concept of cyberbullying. Examining the demographic of the stakeholders, among the eight stakeholders, seven (7), which is the majority, stated that cyberbullying is a financial fraud committed through the internet. Participants 3 and 4, the two subject teachers, suggested that cyberbullying is financial fraud and cybercrime committed through the internet; to them, it implies duping people of their valuables. The parents (participants 7 and 8, respectively) also opined that cyberbullying involves scamming or duping people of their resources. The two principals also suggested that cyberbullying is the inappropriate use of the internet to scam people or using the internet to indict other persons.

P1(SS): *“...so cyberbullying is the wrong use of the internet to scam people ... to scam the innocents ... to dupe them of their money and resources...”*

P2(SS): *“... cyberbullying is abnormal behaviour ... where people overrule or override others...where we abuse others to indict others wrongly ...”*

The two school counsellors also expressed their opinions regarding cyberbullying. One of the counsellors stated that cyberbullying involves using the internet to oppress the less privileged. However, it was also linked as a means to acquire wealth, indicating that the school counsellor in the rural area only has limited knowledge of cyberbullying. The second counsellor viewed it as an illegal use of the internet to deceive people. Below is the extract from the counsellors.

P5(SS): *“The word cyberbullying is an internet language ... bullying is oppression ... when you make use of the internet to oppress others ... to oppress the less privileged... that is cyberbullying ... then if we want to compare it with our society ... we can say that*

cyberbullying has made many people unnecessarily rich, which have led to many people untimely death ... people use cyberbullying to amass wealth unnecessarily ... it is using all your advantages against the less privilege... in view of this, many have used the cybercafé to commit various crimes ... many have died by committing suicide when they are duped; the disadvantages are more than advantage ... they use it to insult and exploit others ... and lots of vices... they use the system to deceive people ... they lie on the internet...”

P6(SS): “*Cyberbullying is the illegal use of the internet to perpetrate fraud on people’s accounts. It involves using the internet to deceive people in such a way that they parted with their monies unknowingly.*”

The above data indicated that the immediate stakeholders in the rural learning environment do not fully understand the concept of cyberbullying; hence, they may not be able to proffer solutions to the growing incidence of cyberbullying among Nigerian adolescents in the rural community.

5.10.2 Research Question 2: Which factors contribute to adolescents' cyberbullying in a rural environment?

5.10.2.1 Theme 1: Causes of cyberbullying in the rural learning environment

The theme addressed the different causes of cyberbullying within the rural learning environment; the findings of the three qualitative data, photovoice, focus group and semi-structure (SS) align; hence, the emerging inductive themes are synchronised to answer the research question.

Sub-theme 1: Contributing factors to cyberbullying in the rural learning environment

- **Photovoice (PV), Focus Group (FG) and Semi-Structure (SS) synchronised data**



Figure 5.12: Group of adolescents watching movies in the classroom



Figure 5.13: Phone use in the rural learning environment



Figure 5.14: Adolescents taking selfies

5.10.2.1.1 Peer Influence

Figures 5.21, 5.22 and 5.23 are data obtained from the photovoice sessions. The data suggest that peer influence is one of the contributing factors to cyberbullying in the rural learning environment. This claim is affirmed by Heritage, Jonathan and Gracious (participants 5, 8 and 9, respectively, in the photovoice reflections below, stating that fellow students gather around their friends who operate phones.

P5(PV): *“Looking at this photo [Fig. 5.21 and 5.22], we can see a group of adolescents watching movies on the phone. The phone is owned by one person, as we can see, other students joined them to watch... other students seeing them watching movies may join them and get influenced by their friends: because students like watching movies.”*

Similarly, during the focus group interview, participants reaffirmed that peer influence is a leading cause of cyberbullying in the learning environment. Smiling A and Precious (participants 2 and 3) attest that cyberbullying occurs online or via group chats. It usually begins with a student calling someone out and being joined by other students.

P3(FG): *Peer group influence*

Speaker 1- Researcher: *“Okay... how does this contribute to cyberbullying...”*

P3(FG): *“Like in group chats, adolescents often call themselves names and abuse each other verbally ... in most cases, it usually starts with one person... and their friends follow suit.”*

Additionally, the semi-structured data gathered from the stakeholders suggest that bad company and peer influence are the causes of cyberbullying in the rural learning environment. While both factors may contribute to cyberbullying, this may be questioned because stakeholders misunderstood the concept of cyberbullying for cyber fraud. The below extract explains stakeholders' views:

P5(SS): *“Bad company ... many adolescents are influenced by their friends... as a result, they join bad gangs who lure them into cybercrimes...”*

P3(SS): *“Another reason is peer pressure ... they feel pressured by their peers in the cities, so they want to join them and feel they belong.”*

5.10.2.1.2 Unregulated phone use and social media platforms in the learning environment

In addition to the above factor, unregulated phone use and social media platforms appear to contribute to cyberbullying in the rural learning environment. The three qualitative data affirmed these findings: photovoice, focus group and semi-structured data. Though the school does not allow phones in the learning environment, adolescents still operate phones in the classrooms; adolescents have access to social media platforms during school hours. This should be regulated to avoid distraction and reduce cyberbullying incidents. The below extract explains adolescents' viewpoints.

P7(PV): *“In this photo [Fig. 5.22], a student is operating a phone in the classroom; I think, based on what we have seen so far, the use of phones in the classrooms should be discouraged because it can distract other students.”*

P6(PV): *“I also think using phones in the learning environment, especially in the classrooms, can contribute to cyberbullying in our learning environment (Co-participant’s affirmation).”*

The researcher enquired if phones are banned in the classrooms and why students still operate phones in the learning environment. Students think it borders on adequate monitoring and implementation. Therefore, it implies that banning phones in the classrooms is not enough for students to stop using them; there should be a concerted effort to monitor their use to safeguard the learning environment. Below explains adolescents' responses:

P3(PV): *“I think because teachers do not pay enough attention to students using phones in the classroom.”*

P10(PV): *“Yes (affirmation!). It seems there’s no proper monitoring from the school authorities. Students use phones in the classrooms, though they place the phones in silence, and teachers don’t really take them seriously because they are not aware most of the time.”*

Data from the focus group and semi-structured interviews complement these findings. Below is an example of a cyberbullying incident, “defaming,” during school hours.

P8(FG): *“Recently, a girl was sleeping in the class, her photo was taken and posted on Facebook with the tag ‘Olosho school Gate” meaning, **school gate prostitute...**”*

P8(SS): *“... most adolescents don’t know when and when not to use phones ... they bring phones to school and even operate it in the classrooms.”*

If social media platforms were regulated in the learning environment, it might not be possible for such posts to be uploaded. As a parent (participant 8, semi-structured) stated, most students don’t know when and when not to use phones; hence, social media platforms must be regulated in the learning environment.

5.10.2.1.3 Discrimination in the learning environment

In the focus group discussion, the participants explained the causes of cyberbullying identified from the immediate learning environment, how these factors contribute to cyberbullying and other factors that promote cyberbullying within the community. Aside from peer influence and unregulated phone usage mentioned in the photovoice reflection, data from the focus group discussion infer that discrimination in the learning environment contributes to cyberbullying among adolescents. The findings revealed that different forms of discrimination are perpetrated through the internet. Precious, Treasure and Heritage (participants 3, 4 and 5, respectively) reported that social media is used to discriminate against ethnic minority background adolescents, non-natives, and those who can’t speak English language fluently. Also indicated was stigmatisation, oppression and harassment among the seemingly rich and the poor students calling for concerns and could undermine the learning environment if adolescents don’t feel safe. The below extracts explain the participants’ concerns.

Speaker 1- Researcher: *“How does this contribute to cyberbullying...?”*

P3(FG): *“Discrimination based on the language barrier, here we have different languages; English is our official medium of communication, aside from the Yoruba language, which is spoken by most people; however, few of us speak our native Epira language, and when we do, friends make jest of us, post nasty comments about us, call us names and sometimes abuse us on social media.”*

P4(FG): *“Students usually discriminate among themselves based on backgrounds or physical traits... especially if they cannot speak face to face with that person...they go online and insult or harass the person.”*

P5(FG): *“Stigmatisation, stigmatisation, mostly among students that have or not, or because the students don’t speak English fluently or it could be because of the student’s background.”*

5.10.3.1.4 Non-reporting cases of cyberbullying activities in the learning environment

In addition, peculiar to the photovoice findings are non-reporting cases of cyberbullying incidences in the rural learning environment, which seem to contribute to the continued cyber activities. Two non-reporting categories are identified. First is non-reporting cases by student officials, including class captains/representatives and school prefects who represent the school authority and do not report phone use cases in the learning environment, especially if such students are their friends. This may suggest why there are increasing cyberbullying cases in the rural environment. Though phones are not allowed in the classrooms, photovoice evidence (Fig. 5.21, 5.22 and 5.23) suggests that adolescents operate phones in the learning environment.

Below are extracted to ascertain the above claims.

P3(PV): *“We do have class captains for each classroom and School Prefects that represent the school management; however, they hardly report. In most cases, they don’t report when they see their friends using or operating phones in the classrooms.”*

P1(PV): *“They don’t, especially if the students are their friends.”*

Also, Precious and Smiling A (participants 3 and 1, respectively) stated that sometimes, their classmates send offensive messages to their group chats at home. Even though she’s not in school, classmates could still forward unsolicited messages to fellow students’ phones or text their WhatsApp group. These are cases of cyberbullying happening at home outside of parents’ awareness. Please see below the participants’ direct quotes:

P4(PV): [raises her hand] *“Sometimes, my friends do send nasty messages to me when I am at home.”*

P2(PV): *“Sometimes, some of our classmates post insulting messages to our group while we are at home.”*

The second non-reporting case resulted from the non-action of their significant order when adolescents eventually shared their cyberbullying experience with parents or teachers. When asked if they reported the abuse, Precious said she counted it unnecessary because it happens more often. Other adolescents also attest that they did not share or report their cyberbullying experience with their parents or guardians; Vivian said, I once told my mom, but she ignored it. Phebe, Precious, Jonathan, Heritage, Gracious and Chukwuma claimed their parents were unaware of their cyber victimisation. Participants’ direct quotes are shared below:

P6(PV): *“As for me, I once told my mom, but she said I should ignore it.”*

P7(PV): *“I reported to my mom, but she doesn’t take it seriously.”*

Researcher: *“Humm, so, are your parents fully aware of your cyberbullying experience?”*

P6(PV): [shaking her head] *“No.”*

P3(PV): *“No”*

P1(PV): *“No”*

P8(PV): *“They are not aware.”*

P9(PV): *“I told my parents, but nothing was done.”*

P10(PV): *“No”*

P6(PV): *“They don’t know.”*

P5(PV): [shaking his head, signals no]

P7(PV): *“No”*

By implication, victims stopped reporting cases because their significant orders at home did not take them seriously. Again, it seems students do not report to officials at school because phone use is not allowed in the learning environment; hence, to protect their friends, they did not report adolescents operating phones in the learning environment.

5.10.3.1.5 Inadequate monitoring and supervision of the learning environment

In addition to the above factor, the photovoice and focus group data align and suggest that inadequate monitoring and supervision in school and home contribute to cyberbullying cases in the rural learning environment. Since the learning environment is not limited to the classrooms but comprises of home and everywhere the child can learn. It is important to safeguard it against cyberbullying. The findings indicated inadequate electronic device monitoring by the school authorities – management, teachers, school prefects, class captains, and co-students. This claim is further explained by Chukwuma and Jonathan (participants 7 and 8, respectively).

P7(PV): *“These students who are watching movies on their phones during the lunch hour [Fig. 5.21]. Phones are not allowed in the classes; the students are breaking the rules and regulations of the school. Again, this bothers on monitoring. There should be proper monitoring. Though teachers may not be in the class all the time, students may watch over fellow students and report rules breakers...”*

P8(PV): *“This photo [Fig. 5.22] shows a student operating a phone in the classroom. This can encourage other students to do the same. In our school, phones are not allowed in the classrooms; however, some students operate their phones in the classroom.”*

Secondly, adolescents’ cyber activities at home must be monitored and supervised by parents or guardians; this is important because perpetrators can still post offensive messages and photos when their victims are far away. Data obtained indicated that some parents are not concerned or may not understand the negative impact of cyberbullying on adolescents’ mental health. When asked how inadequate parental monitoring could contribute to cyberbullying, Heritage and Treasure (participants 5 and 4, respectively) replied below:

P5(FG): *“For instance, when a teenager is supposed to be sleeping... they are busy pressing their phones and chatting with their friends.... Watching and posting pornographic images.... because their parents don’t monitor them.”*

P4(FG): *“When parents do not show enough attention to their kids’ internet activities, parents not performing their duties of protecting their children, such children could be abused online.”*

5.10.3.1.6 Inadequate awareness of the concept of cyberbullying and the danger of social media platforms

Similarly, another contributing factor to cyberbullying incidences among rural adolescents emerged from the focus group discussions- inadequate awareness; this is reflected in the lack of adequate information about the concept of cyberbullying, lack of enlightenment campaigns against the dangers of social media and lack of internet ethics and etiquette.

The below extract explains adolescents' views.

P8(FG): *“Lack of knowledge.... some adolescents are not familiar with the rules of social media, for instance, they just open a Facebook or an Instagram account and post anything online...”*

P4(FG): *“Some adolescents living here are not enlightened on how to use the internet; they need to be trained.”*

P3(FG): *“Not knowing the real use and purpose of the internet can expose adolescents to danger...”*

P6(FG): *“By not enlightening adolescents about the dangers of social media.”*

P7(FG): *“Lack of internet knowledge... some don't know the internet etiquette... some adolescents do not have full access to phones... but as soon as they get one...they want to oppress their fellow peers by posting nasty things about them online... generally, they explore and do funny things.”*

Earlier findings also suggest that most of the stakeholders in the rural environment do not understand the concept of cyberbullying (Campbell *et al.*, 2019:396); hence, they may be unable to offer adequate solutions to cyberbullying.

Also, as expressed by Treasure, Jonathan, and Smiling A (participants 4, 8 and 2, respectively) in the focus group discussion, retaliation cases in the rural learning environment and internet exploration seem to contribute to cyberbullying cases in the rural environment. It was observed

that most of the cyberbullying cases in the rural learning environment started offline or as a face-to-face confrontation. In a retaliation attempt, it was transferred to online harassment.

P4(FG): *“Students usually discriminate among themselves based on backgrounds or physical traits... especially if they cannot speak face to face with that person...they go online and insult or harass the person.”*

P8(FG): *“... adolescents see the internet as a way to express their mood. If they are happy, they post; when something goes wrong, and they are not happy, they post for everyone to see. If someone hurts them, they post, they are just posting online; they feel that’s the best way to express their feelings.”*

P2(FG): *“Hatred, Hatred ... some adolescents seem to express their hatred towards another through the internet. They see the internet as an opportunity to express their feelings...when someone offends them, they go online to show their anger.”*

The above suggests that some adolescents see the internet as a medium of revenge, especially when hurt or assaulted physically. Hence, they go online to express their frustrations, mainly if there’s a power imbalance between the perpetrators and the victims.

5.10.3.1.7 Other salient factors

The following salient factors echo the qualitative data, including the lack of anti-bully laws in the schools and the presence of poverty in the rural learning environment.

a) Lack of anti-bully laws and cyberbullying policies in schools

The focus group data suggest that one of the contributing factors to cyberbullying is the absence of anti-bully laws and cyberbullying policies in schools. If implemented, it will ensure a safer atmosphere for all learners in the rural learning environment. Hence, participants 3 and 9 called for legislation against cyberbullying.

P3(FG): *“Legislation should be made to stop cyberbullying and discrimination.”*

P9(FG): *“... anti-bullying law should be put in place.”*

b) Presence of poverty in the rural environment

The photovoice reflection depicts the rural environment as an infrastructural marginalised environment, deprived of basic amenities (see section 5.9.1.1.1, Chapter 5). The environment was lacking in basic facilities and provisions; evident in the rural area are poor road network, poor drinking water system, sub-standard houses, unsafe cooking environments and sub-standard living environments (see Fig. 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 5.14, 5.15 and 5.16).

The below extracts confirm the above claims.

P1(PV): *“These places [Fig. 5.13 and 5.14] are not conducive for people to live in; it is sub-standard, and as you can see, smoke if inhaled, can harm someone’s health; as we can see, the environment is not healthy.”*

P4(PV): *“The houses in this place [Fig. 5.13 and 5.14] are too old and dilapidated. The buildings don’t fit the present day... Living in this type of environment is not encouraging.”*

When asked how poverty contributes to cyberbullying in the rural environment, one of the participants stated that students who can’t afford smartphones are subject to mockery and online harassment. See the response below.

P2(PV): *“Most students using phones amongst us usually use them to intimidate others who can’t afford one or whose parents do not provide phones.”*

Researcher: *“Really? Can you elaborate, please?”*

P2(PV): *“Yes. Students without phones don’t feel they belong because sometimes they make jest of them and taunt them on social media. They don’t even know this until they are told by*

their friends who have phones. So, they are discriminated against and bullied on social media. Sometimes, if there is an issue or argument between someone with a phone and those without a phone, the students with phones would go online and post bad comments about the students.”

5.10.4 Research Question 3: How do adolescents perceive an enabling learning environment?

5.10.4.1 Theme 1: Enhanced learning environment

The theme is centred on participants’ perceptions of the learning environment. The focus is to ascertain what adolescents perceived as a learning environment to compare and contrast with what stakeholders perceived as a learning environment. One central theme and two sub-themes emerged from the three qualitative data. The three findings align, while some sub-themes re-occurred across the data; hence, the data was synchronised to answer the research question.

Sub-theme 1: Enhanced physical environment

Previous data indicate that the rural environment is infrastructural marginalised (see Fig. 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 5.14, 5.15 and 5.16); hence the need to ascertain what adolescents perceive as an enabling learning environment to enhance their learning environment.

- **Photovoice, focus group and semi-structured synchronised findings**



Figure 5.15: School library (Centre view)



Figure 5.16: School library (right side view)



Figure 5.17: ICT Building (front view)



Figure 5.18: ICT building (inside view)

Group reflection:

Participating adolescents took photos from the immediate environment depicting an enabling learning environment. The researcher and the participants analysed the photos (Fig. 5.24, 5.25, 5.26 and 5.27) using the mnemonic technique (Badanta, Acevedo-Aguilera, Lucchetti & de Diego-Cordero, 2021:3659); probing, what can you see? What's happening? Participants' responses are shared below.

P4(PV): *“In the photo [Fig. 5.25], you can see a ceiling fan, textbooks, chairs, and tables well-arranged and spaced; the room is well-ventilated, and the ceiling is fixed. This is an example of an enabling learning environment. This place is conducive for students to read and learn.”*

P2(PV): *“These photos [Fig. 5.26 and 5.27] represent an enabling learning environment. Inside the ICT building are two whiteboards for learning instead of the old chalkboards used in the school classrooms. Unlike open classroom ceilings, it is also evident that the ceiling is properly sealed. There is also a ceiling fan in case the room temperature increases, and the room gets hot. These photos represent an enabling learning environment. If all the classes are properly equipped like this place, teaching and learning will be smooth.”*

P10(PV): *“Also, here [Fig. 5.26 and 5.27], we have electricity and access to computers (the computer room is locked in safety purposes); this place can promote teaching and learning, and whenever we are here, we enjoy our studies.”*

According to Treasure and Smiling A (participants 4 and 2, respectively), the above photos depict an enabling learning environment. They defined it as a conducive and well-equipped place for teaching and learning. In the reflection, they compared and contrasted the library and the ICT building with their classrooms, which lacked infrastructure. To support this claim, Phebe (participant 10) attests that the place can promote teaching and learning.

Sub-theme 2: Enhanced psychological and emotional environment

- **Focus group (FV) and semi-structure (SS)**

The findings of the focus group discussion and the semi-structured interviews suggest that an enabling learning environment also implies an enhanced emotional and psychological environment. Jonathan, Treasure, and Precious shared their view below.

P8(FG): *“Enabling learning environment is a place of positive interaction between two or more people.”*

P4(FG): *“An enabling learning environment is a place, a friendly, teaching-learning place, where we learn quietly... is an environment where learners’ potential can be enhanced.”*

P3(FG): *“It is a place where we can improve the learning environment of students or adolescents so they can have a better learning experience.”*

In addition to an enhanced physical environment, adolescents also need a balanced emotional and psychological environment to maximise their potential. The above extracts indicate adolescents’ perception of an enabling learning environment; as stated, it implies a place of positive interactions and a friendly atmosphere where students can learn quietly, and their potential can be harnessed. However, where this is lacking, it may be challenging for adolescents to maximise their potential.

The semi-structured interviews corroborate these findings; Jide, the vice principal (participant 2), emphasised that an enabling learning environment provides positive interaction between teachers and students. Also, Jane, a subject teacher (participant 4), stated that it is a place of a facilitated and coordinated learning environment. By implication, to enhance the learning environment of cyberbullied adolescents in rural ecology, there is a need for positive interaction between teachers and students.

P2(SS): *“It is a place where both teachers and learners interact. Teaching and learning won’t be effective if we cannot interact; that’s the essence of learning. Teacher-student interactions. When teachers and learners interact, then learning is taking place.”*

P4(SS): *“Enabling learning environment is a place where teaching and learning can be facilitated, a place where teaching and learning can be well coordinated for better performance.”*

Therefore, adolescents need a supportive environment, an emotionally and psychologically balanced environment, and a place to enhance their full potential. Hence, there is a need to design a strategy for cyberbullied adolescents in the rural environment.

5.10.5 Research Question 4: What are the threats to enabling the learning environment of cyberbullied adolescents?

5.10.5.1 Theme 1: Threats to enabling learning environment in the rural community

This theme identified threats that might endanger the learning environment. Two sub-themes emerged from the photovoice reflection, while a joint sub-theme emerged from the focus group and semi-structured interviews.

1. Sub-theme 1: Physical threats to enabling learning environment (Photovoice).
2. Sub-theme 2: Psychological and emotional threats to enabling learning environment (Photovoice).
3. Sub-theme 3: Hindrances to enabling learning environment (focus group and semi-structure).

Sub-theme 1: Physical threats to enabling learning environment

- **Photovoice (PV)**



Figure 5.19: Unequipped learning environment (an archaic chalkboard)



Figure 5.20: Unsafe learning environment (no classroom door, no ceiling, nor asbestos, direct heat, only roofing sheets)



Figure 5.21: Unconducive learning environment (Unorganized classroom setting)

Adolescents described perceived threats to the learning environment with the following keywords: unfriendly, unconducive, poor, and unsafe learning environment. Below are the extracts from Heritage, Clemence and Chukwuma.

P5(PV): *“As we can see, from these photos [Fig. 5.28, 5.29 and 5.30], these classrooms are old and dilapidated, and these rooms are not suitable for learning. The zincs and planks are old, the planks are eaten up by termites, imagining writing examinations in these places, these*

places are not conducive for the student to write exams, the lockers are not kempt, some of the locker's legs have broken, they are not standing properly.”

P1(PV): *“The roofs leak when rain falls, the class becomes unconducive to students, and water leaks into the class; if the breeze blows or the wind blows, the roof makes noise and vibrates, and the zinc may even fall off and injure students, this can cause distractions to students during teaching or when writing examinations.”*

P7(PV): *“Once again, my pet name is Chukwuma, as we can see from these photos [Fig. 5.29 and 5.30], the classrooms are not suitable for students to learn; for instance, the asbestos sheet is broken, students will feel heated during summer and won't be able to concentrate. Look at these photos [Fig. 5.29 and 5.30], no doors, they are wide open, students' belongings are not safe, it can easily be stolen because there's no security.”*

Heritage expressed concern about the learning environment, stating it is not conducive to learning, is not equipped, and lacks infrastructure. In support, Smiling A affirmed that when it rains, the roofs leak, which is a source of concern for the students. Hence, there is a need to eliminate physical threats from the learning environment to make it safe for adolescents to learn.

Sub-theme 2: Psychological and emotional threats to enabling learning environment (Photovoice)

Similarly, psychological and emotional threats endanger cyberbullied adolescents' learning environment. They seem to experience fear and insecurity caused by the dilapidating state of the learning environment. The students adjudged that some classes were unfit for learning and called for renovations.

P6(PV): *“The building in these photos is weak [Fig. 5.29 and 5.30) and may collapse at any time; this concerns students; the environment is a distraction and may not allow students to concentrate. Some students are fond of looking at the ceiling during the lesson. Some of their attention is divided; teachers may also find it difficult to give their best under this condition – this is not good for the learning environment.”*

P8(PV): *“From these photos [Fig. 5.28, 5.29 and 5.30], one can tell that the classroom buildings are old and dilapidated. The buildings need renovations; the atmosphere is not conducive for learning, this is not ideal for a learning environment. Our surroundings are full of bushes. These buildings may collapse one day if necessary; precaution is not taken.”*

P7(PV): *“As we can see from these photos [Fig. 5.29 and 5.30], the classrooms are not suitable for students to learn, for instance, the asbestos sheet is broken, students will feel heated during summer and won’t be able to concentrate [...] students won’t be able to concentrate ... no ceiling...no asbestos ... everything is tattered opened ...Look at these photos [Fig. 5.29 and 5.30], no doors, they are wide open, students’ belongings are not safe, it can easily be stolen because there’s no security.”*

Also, adolescents express concern regarding distraction, inability to concentrate, and safety. These seem to affect their learning environment, hence the need to create an enabling learning environment for cyberbullied adolescents. Photo evidence indicates that the classrooms do not have doors and ceilings (Fig. 5.29 and 5.30), and the premises are not organised. By implication, teaching and learning may be challenging in such settings because teachers and students are not in a conducive learning environment.

P1(PV): *“The roofs leak when rain falls, the class becomes unconducive to students, and water leaks into the class; if the breeze blows or the wind blows, the roof makes noise and vibrates, and the zinc may even fall off and injure students, this can cause distractions to students during lessons or when writing examinations.”*

P5(PV): *“As we can see, from these photos [Fig. 5.28, 5.29 and 5.30], these classrooms are old and dilapidated, and these rooms are not suitable for learning. The zincs and planks are old, the planks are eaten up by termites, imagine writing examinations in these places, these places are not conducive for the student to write exams.”*

Sub-theme 3: Hindrances to enabling learning environment

- **Focus Group and Semi-structure**

Data from the focus group and the semi-structured interviews suggest the following hindrances exist in the rural learning environment: juvenile delinquency, poor school administration, poor teacher-student relationship, unequipped learning environment, low self-esteem, distraction, poverty, and unregulated phone use in the learning environment.

Juvenile delinquency is an anti-social behaviour commonly found among adolescents (Crawford, Lewis & Traynor, 2017:9); however, it is also noticeable in the learning environment. Precious attests to the presence of drug abuse in the learning environment. She stated that some adolescents post unpleasant content online when under drug influence, which calls for concern as it establishes the connection between drug abuse and cyberbullying. Hence, drug abuse is a threat that should be eradicated from the learning environment. In support of Precious' claims, Smiling A described an enabling learning environment as a place free of substance abuse.

See the below extracts for details.

P3(FG): *“Substance abuse... some adolescents abuse drugs, and this may threaten the learning environment.”*

P3(FG): *“Some of our students abuse drugs; sometimes, when they are under the influence of drugs, they say and post unpleasant comments and photos; in many cases, they invade someone's privacy with their posts.”*

P2(FG): *“A place of no substance abuse.”*

Other juvenile delinquencies observed among adolescents include cultism and cyberbullying.

P2(FG): *“Cultism”*

P2(FG): *“Cyberbullying threatens the learning environment. Where cyberbullying persists, the environment will be unsafe to learn.”*

The second hindrance noticed was poor school administration, which seems to threaten the learning environment of cyberbullied adolescents, as confirmed by Chukwuma and Treasure (participants 7 and 4, respectively). A school lacking in administration would probably lack

discipline, and where indiscipline persists, students' supervision and monitoring would be ineffective. Thirdly, Heritage stated that poor teacher-student relationships might hamper the learning environment.

P7(FG): *“Poor administration may lead to poor school management and a lack of organisation and monitoring in school.”*

P4(FG): *“Poor administration may also lead to a lack of discipline in school.”*

P5(FG): *“Poor teacher-student relationship.”*

P5(FG): *“Poor teacher-student relationships can affect the learning environment. Where there's a poor relationship, teachers will care less about the students. Teachers won't commit themselves to duties; the teacher will give excuses for not coming to class. They won't show concern for abused students or report them to the school authorities.”*

Aside from juvenile delinquencies, poor school administration and poor teacher-student relationships, the following hindrances are itemised from the focus group data- an unequipped learning environment, an infrastructural deficit environment would not promote learning and the expression of low self-esteem.

P5(FG): *“Lack of social amenities ... sometimes, the environment is not conducive for learning.”*

P2(FG): *“Lack of confidence in oneself.”*

In addition to the focus group data, the semi-structured findings from the stakeholders suggest that poverty and unregulated phone use could threaten the learning environment. The presence of poverty is evident in the learning environment, as depicted in the photovoice data (Fig. 5.8-5.22). The inability of parents to provide necessities for adolescents may make students a subject of abuse, discrimination, and online harassment by bullies (Baird, Camfield, Haque, Jones, Al Masri, Pincock & Puri, 2021:1163).

P5(SS): *“Lack of concentration in class; not paying attention in class, most of the phone users operate them in the classes, students don't pay full attention in class, use of phones in classes especially in the school premises is on the alarming rate ... this can lead to poor academic performance.”*

P3(SS): *“Abuse of phones... overdependent on phones... A good number of our students spend more time on their phones. When you walk around the school premises, you see them in groups; if you enquire what’s happening, they will hide their phones and deny everything.”*

P1(SS): *“Poverty, it seems most parents cannot afford to buy necessary textbooks for their wards. This may be a result of poverty, or it could be the nonchalant attitude of parents. Most of the students lack major textbooks. And if this is not provided, it will hamper teaching and learning, especially in these rural areas.”*

5.10.6 Research Question 5: How can we enhance the learning environment of cyberbullied adolescents in a rural environment?

5.10.6.1 Theme 1: Improving the learning environment of cyberbullied adolescents in a rural community

The section suggests ways of creating an enabling learning environment for cyberbullied adolescents in rural learning ecology. The findings of the three qualitative data are synchronised and aligned to answer the research question.

Sub-theme 1: Enhancing the learning environment of cyberbullied adolescents

This section presents the photovoice, focus group and semi-structured synchronised findings.

5.10.6.1.1 Adequate enlightenment and awareness against cyberbullying

In the focus group discussion, adolescents suggested the need for adequate enlightenment and awareness against cyberbullying in the rural learning environment. The stakeholders supported the findings in the semi-structured interviews. These results seem to confirm earlier findings suggesting that adolescents and stakeholders have limited knowledge of cyberbullying (Campbell *et al.*, 2019:396). The counsellors (stakeholders’ participants 5 and 6, respectively) indicated the need for orientation and awareness campaigns against cyberbullying.

P2(FG): *“Government should put up a proper campaign and enlightenment on the use of the internet and social media ... also campaign against cyberbullying in all schools.”*

P7(FG): *“Government should establish agents to control cyberbullying in schools.”*

P5(SS): *“Awareness, as counsellors, teachers, and stakeholders, we shall keep telling them the right thing.”*

P6(SS): *“Orientation – proper orientation, we need to change how our youths and adolescents think. They need to imbibe the right culture. It won’t be easy; it won’t be sudden, but we will get there.”*

5.10.6.1.2 Legislation against cyberbullying and provision of cyberbullying policy in schools

Participants (adolescents and stakeholders) further suggested ways of enhancing the learning environment of cyberbullied adolescents, including the need to enact and legislate anti-bullying laws in schools to curb the spread of cyberbullying in the rural learning environment. However, there are laws protecting the rights of the Nigerian child as specified in the Nigerian National Policy on Education (Adebisi, Jerry, Rasaki & Igwe, 2014:455). There are laws against cybercrimes in the Nigerian constitution (1999 amended); however, there is no formal law against cyberbullying in Nigerian schools; legislating laws to protect Nigerian students in the rural environment will serve to protect the rurally marginalised cyberbullied adolescents (Nwosu *et al.*, 2018:46). In summary, Government should promulgate laws to check and regulate cyber activities in schools, victims should be protected while culprits are reprimanded. Clemence, Precious and Gracious (participants 1, 3 and 9) affirmed these claims. See the extract below.

P1(FG): *“... legislation against cyberbullying ... should be put in place.”*

P3(FG): *“Legislation should be made to stop cyberbullying and discrimination.”*

P9(FG): *“... anti-bullying law should be put in place.”*

5.10.6.1.3 Campaign against discrimination in the learning environment

In the above extract, Precious (participant 3) called for legislation against discrimination, which is vital because earlier findings suggest that discrimination exists in the learning environment (Bitto Urbanova, Holubcikova, Madarasova Geckova, van Dijk & Reijneveld, 2020:2). Teacher-student discrimination should stop. Teachers shouldn't discriminate between brilliant and less intelligent students, privileged and less privileged students. Also, student-student discrimination should be eradicated by promoting mutual respect between adolescents.

Jonathan and Heritage suggest the following:

P8(FG): *“Teachers also should not discriminate among their students.”*

P5(FG): *“Teachers should stop abusing students... rather... they should encourage them to read more. Most times, when teachers abuse students. Their peers do make jest of them on social media.”*

5.10.6.1.4 Reporting cyberbullying incidents

One of the ways to ensure an enabling learning environment for cyberbullied adolescents is reporting the incidents. Previous findings suggest that there are high non-reporting cases of cyberbullying cases in the rural learning environment (Connolly, 2017:157). The victims of cyberbullying should be encouraged to report to their significant others- parents, guardians, teachers, or any available adult. Bystanders should report eyewitness accounts to the authorities, while authorities should take necessary actions on reported cases. Data from the photovoice and the focus group are shared below:

P6(PV): *“Students also should report cases of cyberbullying irrespective of whether the person is their friend. They should report to their class teachers, who will take it up with the authorities.”*

P10(PV): *“There should be proper monitoring in schools; if there is, cyberbullying will reduce in our schools because most of the cases are not known to the teachers. If they are aware, they may take necessary action.”*

P3(FG): *“Cyberbullied students should report to the nearest authorities.”*

P2(FG): *“Also, friends and colleagues should also report bullies. Sometimes, when students make unpleasant comments in group chats, most students just laugh at it, only a few condemn it, so we hardly report cases of cyberbullying.”*

The researcher inquired why victims or bystanders don't report cases; below are the responses.

P2(FG): *“Because we are mates, it's rare reporting your classmates. You rather fight back or defend yourselves. Students don't see or take cyberbullying seriously because there's no law in place restricting it in schools.”*

P8(FG): *“The issue is, the phone is not allowed in the classrooms; reporting cyberbullies is like reporting yourself. So, students don't report.”*

5.10.6.1.5 Regular inspection, supervision, and monitoring

Data from the photovoice, focus group and semi-structure indicated the need for regular inspection, supervision and monitoring to safeguard the learning environment. Parents, teachers and the government need to supervise the learning environment jointly. Earlier data presented (see Fig. 5.28, 5.29 and 5.30) suggest this needs to be improved in the rural learning environment. Phebe, Gracious, Heritage, and Kayode indicate that parents should endeavour to check their kids' activities online; teachers should supervise students and regulate the use of phones in the classroom. School authorities should properly monitor staff and students, while the Government should inspect schools regularly to identify areas of need. See the extract below.

P10(PV): *“There should be proper monitoring in schools; if there is, cyberbullying will reduce in our schools because most of the cases are not known to the teachers. If they are aware, they may take necessary action.”*

P9(FG): *“Teachers should monitor the use of phones in the classrooms; they should supervise students' activities.”*

P5(FG): *“Teachers should control the use of phones in the classrooms because some students operate their phones during class, some make jokes about other students and post it online.”*

P7(SS): *“Parents should monitor what their kids do online. They should show interest in what their children do online.”*

Furthermore, Heritage suggested that parents can protect their kids from cyberbullies by joining the social media platforms their kids patronised.

P5(FG): *“Parents can join the same social media platforms their kids joined; for instance, they can be their friends on Facebook, Instagram, etc. by doing this, they can help to protect them against cyber bullies.”*

- **Regulation of phone and social media in the learning environment**

Participants suggested regulating phone use and social media access in the classrooms, particularly during teaching and learning. If implemented, this may reduce distraction and improve concentration in the learning environment. In addition, if phone use is banned in classes, it may mitigate cyber activities among adolescents. Though phones are not allowed in the classrooms, findings show that students operate them even during lessons (see Fig. 5.17, 5.18 and 5.19). Hence, a measure that bars students from using social media platforms during school hours or within the learning environment should be in place. The below extract explains.

P5(FG): *“Teachers should control the use of phones in the classrooms because some students operate their phones during class, some make jokes about other students and post it online.”*

P8(FG): *“The issue is, phone is not allowed in the classrooms.”*

5.10.6.1.6 Government intervention in providing social amenities

One of the threats identified in the learning environment is poverty and infrastructural deficit (Fig. 5.13, 5.14, 5.15 and 5.16). Heritage, Chukwuma, and Gracious complained of the deplorable state of their community and called for government intervention to provide basic amenities to enhance the learning environment. They compared their schools with city schools and urged the Government to support them with modern teaching aids.

P5(PV): *“The roads that lead to our school are bad. The government should make an effort and provide us with good road networks so we may come to school on time. Also, most of our teachers always seek transfer to the cities; they don’t stay long here. The government should encourage them to stay by providing teaching resources to the rural schools.”*

P7(PV): *“Hmmm, to improve our learning environment, we need social amenities as we have in the big schools in cities. Our school really needs new buildings. The government should look into providing us with modern teaching equipment as we have in the cities.”*

P8(PV): *“Our classrooms are not conducive for teaching and learning; the classrooms are too old, and we need better facilities. The government should build us new classrooms or at least renovate the dilapidated buildings.”*

- **Counselling services**

The researcher further inquired how to improve cyberbullied adolescents' learning environment. What should be done to enhance their environment? Precious and Phebe proposed that cyberbullied adolescents should seek counselling assistance and advised school counsellors to invite potential clients instead of waiting for them to visit their offices.

P3(FG): *“Use of counselling services... cyberbullied adolescents should seek counselling assistance; they should seek the help of counsellors.”*

P10(FG): *“Yes, the school counsellors should not just wait for students to come to their office; they should invite students and ask about their welfare.”*

From the above, it is essential to note that engaging the services of trained and informed counsellors will stabilise emotionally and psychologically abused cyberbullied adolescents in the rural environment. The government should provide trained and knowledgeable counsellors to support cyberbullied adolescents in the rural environment.

- Additional photo evidence



Figure 5.22: Photovoice group reflection session with ten adolescents



Figure 5.23: Adolescents' group participation



Figure 5.24: Telecommunication mast and solar panel



Figure 5.25: Rural electrification powered by solar energy



Figure 5.26: Telecommunication mast for mobile phone users in the rural environment

TWO ADDITIONAL PHOTOS OF THE RURAL LEARNING ENVIRONMENT



Rural chalkboard



Rural school environment: open field

Reflection:

Figures 5.33 and 5.34 above depict a telecommunication mast and a solar panel. Also, in Fig. 5.34, a solar panel is enclosed; in Fig. 5.35, a telecommunication mast for mobile phone users in the rural environment is indicated. These three photos imply that, though the research area is rural, participants can access communication and electricity. This evidence may suggest why adolescents use phones in the rural environment. Though the participating adolescents lived in a rural marginalised area, they could connect with friends outside their vicinities.

5.11 CONCLUDING SUMMARY

The chapter presented the results of the mixed methods explanatory sequential design. The findings are presented in sequence; the quantitative findings comprise the survey questionnaire results, followed by the qualitative findings of the photovoice, focus group, and semi-structured interviews. In explanatory sequential design, the qualitative phase is meant to deepen the study by giving explanations for some key findings in the quantitative phase (Cohen *et al.*, 2018:45). The findings of the qualitative data are synchronised (photovoice focus group, and semi-structured data); integrated and presented in detail according to the research aim and objectives of the study. In chapter six, a discussion of the findings, conclusions and recommendations are provided.

CHAPTER 6

DISCUSSION OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

6.1 INTRODUCTION

In the previous chapter, the findings of the study, analysis, and interpretation were presented. The key findings comprise contributing factors to cyberbullying, which include peer influence, discrimination, unregulated phone use, non-reporting cases of cyberbullying incidences, and inadequate awareness. This chapter proceeds to present a discussion of the key findings, conclusions, and recommendations of the study. In addition, the limitations of the study and areas for further studies are examined.

6.2 RESEARCH AIM AND OBJECTIVES

This study aims to design a strategy that enhances the learning environment of cyberbullied adolescents in a rural ecology.

To achieve this aim, the following objectives are set:

1. To investigate what adolescents understand as cyberbullying in a rural environment.
2. To evaluate the factors contributing to adolescents' cyberbullying in a rural environment.
3. To examine adolescents' perspectives of an enabling learning environment.
4. To determine the threats to an enabling learning environment of cyberbullied adolescents in a rural environment.
5. To explore how to enhance the learning environment of cyberbullied adolescents in a rural environment.

6.3 TRIANGULATION IN EXPLANATORY SEQUENTIAL DESIGN

The following data were integrated: the survey questionnaire in the quantitative phase, followed by the photo voice, focus group, and semi-structured interviews collected during the qualitative phase. The quantitative results are linked to the qualitative findings and triangulated. According to Creswell and Plano Clark (2018:231), data triangulation in explanatory sequential design could be implemented during the interpretation or discussion stage. In ESD, data analysis could either be a side-by-side comparison or independently explained (Leavy, 2017:183). Hence, the preliminary result in the quantitative phase is connected, explained, and elaborated using the qualitative findings. In this study, research questions 1 and 3 are triangulated, i.e., quantitative and qualitative results are integrated to answer the research questions. In contrast, the three qualitative data are synchronised to answer research questions 2, 4 and 5. Below is the description of the explanatory sequential design adopted for the study.

Table 6.1: Triangulation in Explanatory Sequential Design

Description of explanatory sequential design adopted for the study		
Research Question (RQ)	Application	Detailed Description
RQ1	Triangulation of quantitative and qualitative data	The survey questionnaire, photovoice, focus group, and semi-structure
RQ 2	Complementary	Photovoice, focus group, and semi-structure
RQ 3	Triangulation of quantitative and qualitative data	The survey questionnaire, photovoice, focus group, and semi-structure
RQ4	Complementary	Photovoice, focus group, and semi-structure
RQ5	Complementary	Photovoice, focus group, and semi-structure

(Source: Researcher)

6.4 DISCUSSION OF KEY FINDINGS IN EXPLANATORY SEQUENTIAL DESIGN

The study's key findings are in Chapter 5, sections 5.5, 5.6 (quantitative) and 5.8.1.4 (qualitative). In mixed methods explanatory sequential design, the discussion chapter is the point of interface where the researcher aligns the quantitative and qualitative data and triangulates the findings (Creswell & Clark, 2018:231). The key results from the study concerning research questions 1-5 are discussed.

6.4.1 Secondary Research Question 1: What do adolescents in a rural environment understand as cyber bullying?

6.4.1.1 Quantitative and Qualitative Triangulation

In this section, the quantitative and qualitative findings are integrated and triangulated to answer the first research question, entailing the survey questionnaire results and the three qualitative data: photovoice, focus group and semi-structured interview sessions.

6.4.1.2 Concept of cyberbullying from a rural learning environment

- ***Quantitative study***

Akrim and Sulasmi (2020:324) and Asanan *et al.* (2017:1) (see section 1.3.2, Chapter 1) defined cyberbullying as harassment, oppression, intimidation, and coercion perpetrated intentionally and repeatedly through electronic devices to hurt a person or group of persons. Data obtained from the quantitative study supports these earlier findings, i.e., item 5 on the questionnaire illustrates that 88.2% of the adolescent population agreed that cyberbullying signifies an act of intimidation. In contrast, item 6 indicates that 81.5% consider cyberbullying an act of oppression (see table 5.2, Chapter 5).

- ***Qualitative study***

As stated in the literature, Chapter 2, section 2.1.4, cyberbullying is online aggression, intimidation, oppression, and harassment perpetrated through electronic mediums intentionally and repeatedly with a motive and intention to hurt (Giumetti & Kowalski, 2022:1; Longobardi, *et al.*, 2017:254; Smith, 2015:178). In the qualitative study, two sub-themes emerged from the main theme (see section 5.10.2.1 Chapter 5). Both the photovoice (PV) and focus Group (FG) data affirmed that cyberbullying is an act of oppression or intimidation through the use of phones or electronic devices (see section 5.10.2.1, sub-theme1, Chapter 5). Specifically, the photovoice reflection suggests that cyberbullying implies oppressing or intimidating fellow students, especially students without phones (photovoice, participant 4; see section 5.10.2.1, Chapter 5); this may be true because not all students use phones in the rural environment. This claim was also supported by one of the participants, who stated that students with phones have many friends compared to those whose parents could not afford phones (photovoice, participant 2, see section 5.10.2.1, Theme 2, sub-theme 1, Chapter 5). However, data obtained from the semi-structured interviews differ; it is a contrasting finding. The stakeholders opined that cyberbullying connotes cyber fraud, cyber scams, or internet romance scams (see section 5.10.2.1, Theme 2, sub-theme 2, Chapter 5).

- ***Integrated discussion***

The qualitative data (photovoice and focus group) confirmed the initial quantitative findings and affirmed that cyberbullying is oppression, harassment, and intimidation perpetrated online through electronic devices (see quantitative sections 5.5.3 and qualitative section 5.10.2.1, Chapter 5). The quantitative and qualitative data indicated that adolescents in the rural environment demonstrated a significant understanding of cyberbullying; however, none of the participants stated the intentions behind cyberbullying; though participants said cyberbullying was aggression, harassment, intimidation, oppression and discrimination through the internet, the intentions behind cyberbullying were not stated (see section 5.10.2.1, Theme 2, sub-theme 1, Chapter 5).

According to Akrim and Sulasmi (2020:324) and Asanan *et al.* (2017:1), cyberbullying isn't just aggression or intimidation; it is intentional aggression, deliberate harassment and wilful

intimidation perpetrated with a motive to hurt or harm the victim(s). In sum, there is an intent behind cyberbullying, which is intentional, deliberate or wilful oppression and intimidation of the victims. Secondly, findings indicated that adolescents failed to establish the repeated nature of cyberbullies (see sections 5.10.2.1 , Chapter 5). In the photovoice and focus group interviews, none of the adolescents stated the recurrent and persistent nature of cyberbullies; instead, they affirmed it is aggression, intimidation and harassment perpetrated through an electronic device (see sections 5.10.2.1, sub-theme 1, Chapter 5). According to Giumetti and Kowalski (2022:1), Abaido (2020:409), and Akrim and Sulasmi (2020:324), cyberbullying isn't just a once-off act; instead, a recurrent action perpetrated with a motive to hurt the victims. Wagner (2019:309) corroborated this assertion and claimed that cyberbullying is a repeated act.

The semi-structured interview finding was in contrast to the quantitative findings. It also differs from the photovoice and focus group findings obtained from the adolescents. Stakeholders opined that cyberbullying implies cyber fraud, cybercrime, internet scams, or online fraud (see section 5.10.2.1, Theme 2, sub-theme 2, Chapter 5).

This is a shocking revelation because the stakeholders in the rural environment compromise the school principals, counsellors, teachers, and parents. However, they mistaken cyberbullying for cybercrime. Ibrahim and Vi (2021:4) affirmed that due to the prevalence of cybercrimes among Nigerian youths, scholars focus on cybercrime or internet fraud instead of cyberbullying. From this finding, it is evident that stakeholders in the rural environment demonstrated limited knowledge of cyberbullying, hence the need for more information and an awareness campaign against it. Campbell *et al.* (2019:396) affirmed that parents and teachers do not have specific knowledge of cyberbullying; hence, the stakeholders misrepresented cyberbullying as cyber fraud.

- **Theoretical Application**

Bandura's Social Learning theory is employed to enhance the educational setting for cyberbullied adolescents in rural areas (Gallo, 2021:11). Specifically, social learning theory has been utilized to demystify the perpetration of cyberbullying among adolescents (Lucas, 2018:106). The theory emphasises the importance of observational learning, where individuals acquire knowledge through observing others. By implementing this theory, learners are provided with the opportunity to establish and cultivate an all-encompassing learning environment that effectively addresses the issue of cyberbullying (Rumjaun & Narod, 2020:85).

In addition, the application of social learning theory has been utilised to elucidate the perpetration of cyberbullying among adolescents (Lucas, 2018:106). The theory highlights the importance of observational learning, wherein individuals acquire knowledge by observing others. By implementing this theory, learners are afforded the opportunity to establish and cultivate an all-encompassing learning environment that effectively addresses the issue of cyberbullying (Rumjaun & Narod, 2020:85). Also, Erikson's theory places a strong emphasis on how society and the individual develop together, which is essential for comprehending how cyberbullying affect's identity development (Beck, 2019:16). Also, the theory provides a means for educators to assess their students' identities and the ways in which their learning environment can either promote or impede their growth (Luke & Carmen, 2018:189).

6.4.2 Research Question 2: Which factors contribute to adolescents' cyberbullying in a rural environment?

The secondary research question 2 was answered qualitatively, using data from the photovoice reflection sessions, focus groups and semi-structured interviews. As stated in Chapter 5, the findings of the three qualitative data collected are integrated to answer the research question (see section 5.10.3). The following themes emerge from research question two.

6.4.2.1 Theme: Causes of cyberbullying in the rural learning environment

The central theme is centred on the causes of cyberbullying in the rural learning environment (see section 5.10.3., Chapter 5). The sub-theme focused on the contributing factors to cyberbullying in the rural learning environment (see section 5.10.3.1, Chapter 5). The central theme was deductive, while the sub-theme emerged (inductive) during the interviews.

6.4.2.2 Sub-theme: Contributing factors to cyberbullying in the rural learning environment

The following factors contribute to cyberbullying in the rural learning environment.

6.4.2.3 Peer Influence

Ibrahim and Vi (2021:5) opined that peer pressure contributes significantly to adolescent cyberbullying. Photovoice data support this assertion, stating that peers and classmates without phones in the rural environment gathered around adolescents operating phones (see section 5.10.3.1.1 and Fig. 5.21 and 5.22, Chapter 5). According to Romera *et al.* (2016:72), adolescents spend reasonable time with friends, consult their classmates, prioritise peer approval, and seek social acceptance (see section 2.3.2.3, Chapter 2). Participant 3 in the focus group discussion attests that, in most cases, cyberbullying usually starts with one person calling out another adolescent in a group chat while other cyberbullies join (see section 5.10.3.1.1, Chapter 5). This finding is supported by Piccoli *et al.* (2020:262) and Cowie (2014:26), stating that cyberbullies often do not act alone; instead, they work in groups and sometimes, bystanders just watch or make jest of the victims.

6.4.2.4 Unregulated phone usage and social media in the learning environment

Aside from peer influence, unregulated phone usage and social media platforms seem to contribute to cyberbullying in the rural learning environment (see section 5.10.3.1.2, Chapter 5). It is evident from the photovoice interaction that adolescents do operate their phones in the classrooms; they watch movies and take selfies on the school premises (see Fig. 5.21, 5.22, and 5.23, Chapter 5). to Qudah *et al.* (2019: 628), and Holfeld and Grabe (2012:396), adolescents and smartphones seem inseparable; their mobile phones have been incorporated into their daily lives and seen as a medium of socialising and connecting with friends both at school and at home. However, smartphones and social media have become the commonest mediums through which cyberbullying is perpetrated among adolescents (Singh *et al.*, 2020:96; Kraft, 2006:160) (see section 2.3.4.1, Chapter 2).

Ophir, Rosenberg, Lipshits-Braziler and Amichai-Hamburger (2020:125) believe that, rather than focusing on the misuse of smartphones, adolescents should be shown how to use smartphones positively to enhance interpersonal relationships and improve communication. Newlin *et al.* (2019:330-331) stated that, though there is evidence that some rural adolescents have access to smartphones and operate their phones in the classrooms, they should be made to use phones to enhance teaching and facilitate teaching-learning.

6.4.2.5 Discrimination in the learning environment

Bozdağ (2020:721) and Relia, Cook and *Chunara* (2019:418) explained that common among the adolescent population is the usage of social media platforms as mediums of self-expression, the spread of hate speech and discrimination. According to the data obtained from focus group discussions, discrimination based on ethnic minorities and non-natives, language barriers and disparities between the seemingly rich and the poor, and stigmatisation seem to exist and appear to be one of the contributing factors to cyberbullying in the rural learning environment (see section 5.10.3.1.3, Chapter 5). This view is supported by literature indicating that some of the causes of cyberbullying among adolescents are based on racial, physical disability and ethnic minority (see section 1.3.2, Chapter 1). Previous studies by Bitto Urbanova *et al.* (2020:2) affirmed that adolescents use the internet to discriminate against or victimise fellow adolescents based on body shape, disability or ethnicity, religion or gender.

6.4.2.6 Non-reporting cases of cyberbullying activities in the learning environment

Royne *et al.* (2017:33) reported instances of silent victims of cyberbullying who never reported nor shared their experiences with parents or peers. The photovoice reflection obtained from participating adolescents suggested two possible reasons why victims of cyberbullying in the rural learning environment do not report or why they do when it is late (see section 5.10.3.1.4, Chapter 5). Firstly, students do not report to officials at school because phone use was not allowed in the learning environment; hence, to protect their friends, they did not report adolescents operating phones in the learning environment. The findings indicated that victims stopped reporting their cyberbullying encounters to their parents because of their non-action (see section 5.9.2.1.1, Chapter 5). Connolly (2017:157) emphasised that non-disclosure of cyberbullying incidents would probably encourage perpetrators to continue; hence, adolescents need to report instances of cyberbullying to parents or guardians, and in the absence of both, they may report to cared adults, and most importantly, parents or guardians should take action.

6.4.2.7 Inadequate monitoring and supervision of the learning environment

The photovoice and the focus group findings align and suggest that the inadequate monitoring and supervision of the learning environment have contributed to cyberbullying among adolescents (see section 5.10.3.1.5, Chapter 5). It is also important to note that the learning environment is not limited to classrooms, but anywhere, teaching and learning can be facilitated either at home, the church or elsewhere; hence the need for parents to monitor their kids' activities on the internet (Zhong *et al.*, 2021:3). Participants 4 and 5 (focus group) indicated that parents do not show enough concern about what their kids do online (see section 5.10.3.1.5, Chapter 5). This finding was confirmed by Caivano *et al.* (2020:10) and Baruah *et al.* (2017:138), who opined that most parents express apathy towards their wards' internet activities.

Previous studies suggest that adolescents spend more time on the internet while their parents spend less; this creates a gap that needs to be filled; hence, Zhong *et al.* (2021:3) and Symons, Ponnet, Walrave and Heirman (2017:424) stated that cyberbullying is associated with lack of parental supervision and support. One of the ways for it to be stopped or curbed is when parents monitor

and supervise their kids' activities on the internet. Similarly, participants 7 and 8 (photovoice reflection) attest that there was no proper monitoring of the use of phones in the learning environment; however, phones are not allowed in the classrooms, and photo evidence indicated otherwise (see Fig. 5.21 and 5.22, Chapter 5).

6.4.2.8 Inadequate awareness of the concept of cyberbullying and the danger of social media platforms

This finding from the focus group discussion corroborates earlier studies by Kavuk-Kalender and Keser (2018:29) and Asanan *et al.* (2017:2), which indicated that some stakeholders- parents, teachers, policymakers, and community members do demonstrate limited knowledge of the concept of cyberbullying (also see section 2.3.4.4, Chapter 2). Campbell *et al.* (2019:396) further stated that stakeholders misrepresented cyberbullying as cyber fraud because they did not understand the nature and forms of cyberbullying. Hence, the need for awareness and campaigns on cyberbullying and the danger of social media on adolescents' mental health (Baruah *et al.*, 2017:140). A recent study by Caivano *et al.* (2020:10) also agrees that parents undermined the extent of cyberbullying because they lack adequate information regarding it.

Social media do have several benefits for growing adolescents. However, unrestricted access to social media could harm adolescents' mental health (Zhong *et al.*, 2021:11). According to Giumetti and Kowalski (2022:2), social media is a common tool for online victimisation, discrimination, and harassment among growing adolescents.

6.4.2.9 Other salient factors

Other salient contributing factors identified in the rural learning environment are the lack of anti-bully laws and the presence of poverty noticeable in the rural learning environment.

6.4.2.9.1 Lack of anti-bully law

The prevalence of cyberbullying has been associated with the absence of anti-bully laws in schools which is associated (Samara, Nascimento, Asam, Smith, Hammuda, Morsi & Al-Muhannadi, 2020:10; Seelman & Walker, 2018:2301). Samara *et al.* (2020:12) opined that though anti-bully laws exist in some schools in America, it is limited to the school environment. Secondly, it doesn't cover cyberbullying and other forms of online harassment. In the focus group discussion, participants 3 and 9 called for implementing cyberbullying laws in the rural learning environment (see section 5.10.6.1.2, Chapter 5); the finding is supported by Wagner (2019:309) stating anti-bully laws and policy in schools will help to safeguard the learning environment. Consequently, Samara *et al.* (2020:9) opined that competent counsellors or psychologists should be able to effect anti-bully strategies and interventions in schools.

6.4.2.9.2 Poverty

The rural learning environment is represented by an infrastructural marginalised environment portrayed by a poor road network, poor drinking water system, unsafe cooking areas and sub-standard living environment (see Fig. 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 5.14, 5.15 and 5.16). Participants 1 and 4 affirmed the poor state of the rural areas (see section 5.10.3.1.7, Chapter 5). They associated the prevalence of poverty with cyberbullying, stating adolescents who cannot afford phones are being mocked, intimidated, and cyberbullied by those who have phones. In line with this finding, Baird *et al.* (2021:1163) claimed that most of the adolescents from the rural environment are from low-income families with reduced opportunities (also see, 2.3.4.7, chapter 2)

- **Theoretical Application**

The ecological system is commonly defined as a nested milieu that is intricately interwoven within another contextual framework. According to Bronfenbrenner, this system can be symbolically understood as a collection of shells or layers that are nested within one another (Oliveira, Silva, Fernandez, Santos, Caravita & Silva, 2020:3; Rosa & Tudge, 2013:243). Furthermore, the microsystem encompasses an array of significant occurrences, actions, roles, functions, and interactions that an individual encounters and engages within a specific environment. It is worth

noting that the microsystem elements can be further classified into both human and non-human constituents (Zhang, 2018:1765; Johnson, 2010:34). Within the human category, we find the child, parents, siblings, peers, and other immediate individuals within the microsystem (Tudge, Merçon-Vargas, Liang & Payir, 2017:49). In contrast, the non-human category encompasses the physical surroundings of the child, such as the classroom, school environment, and inanimate objects that the child interacts with, including electronic devices and hardware (Vélez-Agosto et al., 2017:902).

In addition, social learning theory, as posited by Bandura, acknowledges the significance of both external reinforcement and internal cognitive processes in the learning encounter. It places emphasis on the reciprocal interactions among personal, behavioral, and environmental factors in the process of learning (Schunk & DiBenedetto, 2023:22-23). According to Ozoaghuta and Ojukwu (2022:226), By implication, Bandura's social learning theory emphasises that environmental factors include social and physical factors. The social aspect includes peers, family and teachers. While the physical factors represent learning environments, classroom size, space, and furniture (Melo-Dias & Silva 2019: 101; Yu & Sung, 2022:3854; Richardson & Mishra, 2018:45).

6.4.3 Research Question 3: How do adolescents perceive an enabling learning environment?

Research question 3 was answered using both quantitative (survey questionnaire) and qualitative (photovoice, focus group and semi-structured) methods. The discussion of the findings is synchronised and integrated.

- ***Quantitative study***

The quantitative study illustrates that, out of the 174 multiple responses, 55, 77, and 42 were within the age groups of 10-12, 13-15 and 16-18, respectively. When asked, “what do you understand as an enabling learning environment?” Adolescents responded that it is a space of positive interaction between a learner and the environment; this finding was attested by 80 respondents out of 80 possible multiple responses (see table 5.9, chapter 5). This finding was echoed in the research

reported in section 1.3.1 (Isomöttönen *et al.*, 2019:1; Özerem & Akkoyunlu, 2015:64). Eighty (80) respondents agreed that an enabling learning environment is a friendly environment for teaching and learning (see table 5.9, Chapter 5). In addition, 39 respondents implied it is a place of acceptance for all learners, and 29 stated it is where learners' potential can be enhanced (see section 5.6.1, Chapter 5). These findings also supported earlier literature in section 1.3.1, Chapter 1, which explains that an enabling learning environment is an atmosphere where every learner is warmly received with respect and where teaching and learning take place without intimidation, harassment and coercion (Ngene *et al.*, 2018:3505).

- ***Qualitative study***

The central theme (deductive) is centred on participants' perceptions of the learning environment. Two sub-themes (inductive) emerged from the three qualitative data. Firstly, the photovoice reflection suggested that an enabling learning environment is an enhanced physical environment (see Fig. 5.24, 5.25, 5.26 and 5.27, Chapter 5), while data obtained from both the focus group discussion and the semi-structured aligns and suggests that an enabling learning environment is an enhanced psychological and emotional environment (see section 5.10.4.1, Chapter 5).

According to Cassum and Gul (2017:108-109), Ibem *et al.* (2017:6275), and Odeh *et al.* (2015:4916), an enabling learning environment comprised of enhanced physical, psychological and emotional environments. The physical environment entails the child's immediate environment, the furniture, the seating arrangement, and the learning space. In contrast, the psychological and emotional environment entails the interaction (either positive or negative) between the child and the environment (see section 1.3.1, Chapter 1). Sithole (2017:73) concludes that a positive learning environment is needed for every child to maximise their potential; however, this may not be possible if the atmosphere is not supportive or hostile. Hence, the study aims to design a strategy for cyberbullied adolescents in rural learning ecology.

- ***Integrated Discussion***

In the quantitative study, a large percentage of the participants supported that an enabling learning environment is a space of positive interaction between a learner and the environment, a friendly environment for teaching and learning, a place of acceptance for all learners and where learners'

potential can be enhanced (see section 5.4.3, tables 5.8 & 5.9 , Chapter 5), the qualitative data re-emphasised the findings of the quantitative study stating that an enabling learning environment is an enhanced learning environment (see section 5.4.3, tables 5.8 & 5.9 , Chapter 5). As stated earlier, an improved learning environment comprises the child's physical, psychological and emotional environment (Ibem *et al.*, 2017:6275). Treasure and Smiling A (participants 4 and 2, respectively) described in the photovoice reflection that an enabling learning environment is a conducive and well-equipped place for teaching and learning (see section 5.10.4, Chapter 5). The student's claims were based on photos of the school library and the ICT centre, which they perceived to be equipped and furnished compared to dilapidated classrooms (see Fig. 5.24, 5.25, 5.26 and 5.27). They judged the library and the ICT centre as examples of an enhanced physical environment where teaching and learning can be facilitated (see section 5.10.4, Chapter 5).

In section 5.10.4, as supported by the focus group and semi-structured interviews, sub-theme 2 indicated that enabling the learning environment is an enhanced psychological and emotional environment (Cassum & Gul 2017:108-109). The conversation in this sub-theme was based on students' mental health, positive interaction between the students and the teachers and among students and how it may affect the learning environment (Sithole, 2017:73). It is imperative to note that learning occurs in both the physical and psychological environments, and cyberbullying is perpetrated within and outside of school environs; it, therefore, implies that cyberbullying in the learning environment could constitute a hindrance to the child's psychological and emotional development (Krešić Ćorić & Kaštelan, 2020:270; Belaine, 2017:695; Vinales, 2015:454); hence the call to enhance the learning environment of cyberbullied adolescents in the rural ecology.

- **Theoretical Application**

Bronfenbrenner's ecological theory of human development is applied to enhance the learning environment of cyberbullied adolescents. According to Zhang (2018:1765), the learning environment includes both physical and psychological aspects and plays a significant role in combating cyberbullying among adolescents. Practically, studies have linked an unfriendly school climate to cyberbullying behaviours among adolescents, highlighting the importance of structuring both the physical and psychological space to discourage cyberbullying (McQuillan, 2016:58; Bartolo, Palermi, Servidio, Musso, and Costabile, 2019:569). Hence, to address this issue, anti-bullying policies should be implemented, and mutual respect among learners in the learning

environment should be promoted (Byers, Mishna, & Solo, 2019:2; Hawkins, 2019:37). Additionally, school-based intervention programs are suggested to eradicate the prevalence of cyberbullying in the learning environment (Ferrer-Cascales, Albaladejo-Blázquez, Sánchez-SanSegundo, Portilla-Tamarit, Lordan & Ruiz-Robledillo, 2019:2; Simão, Ferreira, Freire, Caetano, Martins & Vieira, 2017:13). By implementing these measures, schools can create a safe and supportive environment that discourages cyberbullying and promotes positive interactions among students (Pennell, Campbell, & Tangen, 2020:285).

In the context of cyberbullying adolescents in rural communities, the application of social learning theory can enhance the learning environment and support the development of adolescents. Social learning theory explains the learning process of individuals in a social environment where individuals can learn through imitation, observation, and modelling (Zhu, Huang, Evans, & Zhang, 2021:2). By understanding and observing the role of the learning process, social learning methods provide a comprehensive explanation of human learning (Kim & Faith, 2020:298). Additionally, the theory of planned behaviour framework can be used to guide the development of lesson content and design experiential learning experiences that help adolescents empathise and create knowledge (Stanley, Banks, Matthew & Brown, 2020:11). Also, the effectiveness of social learning interventions has been demonstrated in improving communication skills among rural adolescents (Van Voorhis & Salisbury, 2022:199). Therefore, applying social learning theory can be beneficial in addressing cyberbullying and supporting the development of adolescents in rural communities (Yu & Sung, 2022:3853; Hampton & Shin, 2022:1).

6.4.4 Research Question 4: What are the threats to enabling the learning environment of cyberbullied adolescents?

As stated in Chapter 5, secondary research question 4 was answered using qualitative methods; this implies data collected from the photovoice reflection, focus group discussions and semi-structure interviews (see section 5.10.5, Chapter 5). The discussion of the findings is synchronised to answer the research question. The themes and sub-themes below are discussed.

6.4.4.1 Theme: Threats to enabling learning environment in the rural community

As explained in Chapter 5, the central theme addressed possible threats that might endanger the learning environment. Two sub-themes emerged from the photovoice reflection: physical, psychological, and emotional threats to enabling the learning environment (see section 5.10.5, Chapter 5). A complimentary sub-theme emerged from the focus group discussions and semi-structured interviews (see section 5.10.5, Chapter 5).

6.4.4.2 Sub-theme 1: Physical threats to enabling learning environment (Photovoice)

As explained earlier, the learning environment consists of the child's physical, psychological, and emotional environment (Cassum & Gul, 2017:108-109; Odeh *et al.*, 2015:4916). The physical space is an aspect of the learning environment that is very important to the adolescent child (Ibem *et al.*, 2017:6275). As the literature states, an enhanced learning environment consists of an equipped physical environment with furnished classrooms (see section 1.3.1, Chapter 1). However, photos presented by the co-researchers (adolescents) from the immediate rural area labelled the learning environment as old, dilapidated, with a leaking roof, broken ceiling and without a central door. The participants judged the environment to be not conducive to learning (see Fig. 5.28, 5.29 and 5.30). Participant 5 expressed concerns that such an environment poses a threat and could endanger the students' lives (see Fig. 5.30). The finding corroborates Robards *et al.* (2019:2), who confirmed that most rural environments lack infrastructure.

6.4.4.3 Sub-theme 2: Psychological and emotional threats to enabling learning environment (photovoice)

Aside from physical threats, psychological and emotional threats seem to endanger the learning environment of cyberbullied adolescents. Participants 1, 5, 6, 7 and 8 expressed fear and concerns towards the learning environment, describing it as unsafe, inconducive, dilapidated, collapsed and causing distraction (see section 5.10.5, Chapter 5). In agreement, Giumetti and Kowalski (2022:3) and Chandran *et al.* (2018:588) itemised some of the mental health problems associated with cyberbullying, including insecurity, fear, despair, isolation, panic, poor academic performance,

depression and, in worst cases, suicidal ideation. This further establishes that cyberbullying endangers the learners and the learning environments (see section 2.4.2, Chapter 2). Farhangpour *et al.* (2019:3) also confirmed that cyberbullying causes detrimental impacts on adolescents' mental health, including trauma, low esteem, depression, psychological harm, and poor academic performance. Krešić Ćorić and Kaštelan (2020:270) highlighted that though traditional bullying is linked to cyberbullying, the latter is more harmful to the child because perpetrators do have access to victims even when they are at home. Hence, Zhu *et al.* (2021:2) and Gualdo *et al.* (2015:229) implied that cyberbullying poses a danger to adolescents' mental health.

6.4.4.4 Sub-theme 3: Hindrances to enabling learning environment (focus group and semi-structure)

Adolescence is a stage of rapid physical and emotional development that requires enabling environment to be maximised (Jones *et al.*, 2020:2). Hindrances in the learning environment may impede the smooth growth of the child (Vaughn, 2020:27). In the focus group and semi-structured interviews, participants identified the following hindrances in the rural learning environment: juvenile delinquency, poor school administration, and poor teacher-student relationship (see section 5.10.5, Chapter 5). If not addressed, these hindrances could endanger the rural learning environment and hamper the growth of the adolescent child (Giumetti & Kowalski, 2022:3). Specifically, during the focus group discussion, participants 2 and 3 linked substance abuse with cyberbullying by stating some adolescents under the influence of drugs do upload unpleasant posts and remarks on social media (see section 5.10.5, Chapter 5). Other hindrances identified from the semi-structured interview (which emerged in previous sections) are an unequipped learning environment, low self-esteem, distraction, poverty, and unregulated phone use in the learning environment (see section 5.10.5, Chapter 5).

- **Theoretical Application**

In Bronfenbrenner's ecological theory of human development, the application of the exosystem applies here, as it refers to the social context or environment that indirectly influences the child's development (Schofield, 2019:21; Onwuegbuzie *et al.*, 2013:5). It includes factors such as mass media, local politics, social services, neighbors, and industries (Vélez-Agosto *et al.*, 2017:902). The exosystem impacts the child through the microsystem, which is the immediate environment in which the child directly interacts. This means that the exosystem indirectly affects the child's

development through its influence on the microsystem (Schofield, 2019:21; Espelage, 2014:258). The exosystem encompasses both official and unofficial environments that are influenced by the growing adolescents, even if they do not directly involve them (Oliveira *et al.*, 2020:3). Understanding the components and influence of the exosystem is important for comprehending the broader social context in which adolescents develop and how it shapes their experiences and outcomes (Athanasίου *et al.*, 2018:2).

6.4.5 Research Question 5: How can we enhance the learning environment of cyberbullied adolescents in a rural environment?

The secondary research question 5 was answered by the qualitative data from the photovoice, focus group discussions and the semi-structure interviews. The three qualitative data findings are synchronised and aligned to answer the research question.

6.4.5.1 Theme: Improving the learning environment of cyberbullied adolescents in a rural community

The theme is centred on possible ways of improving the learning environment of cyberbullied adolescents in rural areas. The discussion from this section and reviewed literature from the theoretical framework would assist in designing a strategy for cyberbullied adolescents in rural ecology.

6.4.5.2 Sub-theme: Enhancing the learning environment of cyberbullied adolescents

Data from photovoice, focus group discussions and semi-structured interviews are synchronised.

6.4.5.3 Adequate enlightenment and awareness against cyber bullying

Reviewed literature in section 2.2.4.5 corroborates the findings of the study (see section 5.10.6., Chapter 5) that most stakeholders, including parents, adolescents, teachers, policymakers, and community members, are not fully aware of the concept of cyberbullying, its nature, forms, extent and impact on adolescents' mental health (also see sub-section 5.10.6.1.1, Chapter 5). While some

stakeholders have basic knowledge of traditional bullying, they could not differentiate between cyberbullying and cyber fraud (see sub-section 5.10.6.1.1, Chapter 5). Hence, participants 2 and 7 (focus group) and participant 7 (semi-structured) call for an adequate campaign and awareness against cyberbullying in the rural learning environment (see sub-section 5.10.6.1.1). His call is also supported by Krešić Ćorić and Kaštelan (2020:271), who suggested that community awareness campaigns against cyberbullying, prevention programs and constant monitoring of the online engagement of adolescents will reduce cyberbullying access to kids and adolescents. Zhu *et al.* (2021:9) confirmed that a cyberbullying-free environment is possible when all stakeholders are well-informed of the risk and prevention procedures.

6.4.5.4 Legislation against cyberbullying and provision of cyberbullying policy in schools

The absence of anti-bully laws and cyberbullying policy in Nigerian schools have been attributed to the prevalence of cyberbullying in rural areas (see section 5.10.6.1.2, Chapter 5). According to Zhong *et al.* (2021:13), preventive approaches include internet monitoring and legislation against cyberbullying. 3 and 7 (focus group) suggested that implementing anti-bully laws in school would reduce cyberbullying and discrimination among adolescents. This assertion is also supported by Wagner (2019:309), who states that legislation against cyberbullying would safeguard victims from cyberbullying detrimental effects. As stated in the literature review, despite the increased rate of cyberbullying among Nigerian youths and adolescents, there are no anti-bully laws or cyberbullying policies in schools (Balogun *et al.*, 2017:103) (section 2.1.3, Chapter 2).

6.4.5.5 Campaign against discrimination in the learning environment

According to Bitto Urbanova *et al.* (2020:2), Seelman and Walker (2018:2301), adolescents misuse the internet to discriminate against and victimise fellow adolescents based on body shape, disability, ethnicity, religion or gender basis. This statement was confirmed by the findings of this study, which identified cyberbullying-based discrimination and stigmatisation in the rural environment based on language barriers, ethnic minorities, and seemingly rich and poor students (see section 5.10.6.1.3, Chapter 5). As stated in the literature (see section 1.3.2, Chapter 1), cyberbullying among adolescents is often triggered by discrimination based on perceived physical disabilities or disadvantages. This finding is also reported by Relia *et al.* (2019:425), who call for

an end to social media-based hate speech and all forms of cyberbullying-based discrimination among adolescents.

6.4.5.6 Reporting cyberbullying incidents

The study's findings (see section 5.10.6.1.4., Chapter 5) suggest that victims of cyberbullying prefer not to report the incidence. This claim agrees with the literature reviewed (see section 2.2.4.6, Chapter 2), stating that victims of cyberbullying prefer to keep quiet or report when it is too late. Victims need to report the act to their significant orders or available cared adults who must take action immediately (Royne *et al.*, 2017:33). Abaido (2020:415) and Connolly (2017:157) opined that perpetrators would continue if not reported; hence, victims need to report and seek for counselling when necessary.

6.4.5.7 Regular inspection, supervision, and monitoring

The study confirms inadequate monitoring and supervision of the learning environment by students' representatives, teachers, and parents (see section 5.10.6.1.5, Chapter 5). Though students cannot operate phones in the classrooms, photovoice evidence indicates otherwise (see section 5.10.6.1.5, Chapter 5). online engagement, including the use of phones in the learning environment, should be monitored and supervised; previous studies also suggest that the lack of parental monitoring is associated with the prevalence of cyberbullying among adolescents (Krešić Ćorić & Kaštelan, 2020:271; Symons *et al.*, 2017:424).

6.4.5.8 Government intervention in providing social amenities

The study implies that the government needs to do more in the rural learning environment, as the collected photovoice data indicated that the community is marginalised and needs more infrastructure facilities (see Fig. 5.28, 5.29 and 5.30). Also, poverty and lack of basic amenities have been associated with discrimination-based cyberbullying (see section 5.10.6.1.6). Therefore, the Government should provide an enabling learning environment to students in the learning environment (Skinner-Thompson, 2022:416). In addition, to protect students and teachers, Piccoli

et al. (2020:270) call on the Government and educational institutions to provide cyber security to the learning environment. There should be measures in place to block abusers and report potential perpetrators to parents or guardians (Giumetti & Kowalski, 2022:4). Also, to safeguard the learning environment, participants suggest that the Government should provide counselling services to all rural schools and organise refresher training for them because findings of the study indicated that counsellors in the rural schools do demonstrate limited knowledge of cyberbullying (see section 5.9.2.6, Chapter 5).

- **Theoretical Application**

Bronfenbrenner's ecological theory of human development (1979:210), inter-setting occurs when there is an active interaction between the participating adolescents and their environment; this interaction could be a one-sided or dual conversation (Higgins & Cherrington, 2017:14). Hence, positive communication between adolescents and parents, adolescents and the school, and parents and school are crucial for enhancing learning environments. Effective family communication has been found to be a determinant factor in adolescents' well-being and mental health (Kocayörük, 2016:4). Additionally, parental communication plays a significant role in character education for adolescents, with parents conveying messages related to various values and traits (Woods *et al.*, 2019:1; Van Den Eijnden *et al.*, 2018:697). Furthermore, the interaction between parents and children in dealing with the impact of technology, such as social media and electronic devices, is important for forming positive character traits and preventing negative influences (Schofield, 2019:21; Espelage, 2014:258). Adolescents with emotional and behavioural disorders may experience school differently, highlighting the need for specially designed programs that emphasise explicit behavioural and academic expectations and social and emotional skill development (Athanasίου *et al.*, 2018:2; Bronfenbrenner, 1979:211).

In addition to Bronfenbrenner's ecological theory of human development, Erikson's theory provides educators with a means to assess the identities of their students and the potential hindrances or advancements that may arise within the collegiate setting (Luke & Carmen, 2018:189). Moreover, Erikson's theory accentuates the simultaneous growth of both the individual and society, an essential component in comprehending the influence of cyberbullying on the development of one's identity (Beck, 2019:16).

Also, Bandura's Social Learning Theory emphasises that learners acquire knowledge and skills through observation and imitation in a social environment (Joan, 2020:69). This theory that adolescents learn social norms by observing the behaviours of others and internalising the associated outcomes (Van Voorhis & Salisbury, 2022:199). Social-emotional learning (SEL) programs are hereby effective in helping adolescents navigate the challenges of adolescence by improving their skills and mindsets and creating respectful learning environments (Yu & Sung, 2022:3853).

6.5 CONCLUSIONS DRAWN FROM THE STUDY

The following conclusions were drawn from the findings of the study.

6.5.1 Secondary Research Question 1

The study affirmed that adolescents in the rural environment browse the internet and are exposed to cyberbullying like their counterparts in the cities (see table 5.1, Chapter 5). In addition, the findings indicated that adolescents demonstrated a significant understanding of the concept and meaning of cyberbullying; however, it seems incomplete none of the participants establish or mention the motives behind cyberbullying, which is repetitive, deliberate and intentional (Akrim & Sulasmi, 2020:324; Wagner, 2019:309). Also, stakeholders misrepresented cyber fraud with cyberbullying; this was a surprise finding, as they could not differentiate between cyberbullying and internet fraud. They repeatedly interchanged cyberbullying for cyber fraud. Thus, both the adolescents and the stakeholders express limited knowledge of the concept of cyberbullying.

6.5.2 Secondary Research Question 2

Based on the secondary research question 2, the following factors are identified as contributing to cyberbullying in the rural learning environment: peer influence, unregulated phone use and social media platforms, discrimination based on physical traits, language barrier and minority ethnic group; non-reporting cases of cyberbullying activities; inadequate monitoring and supervision of the learning environment, inadequate awareness of the concept of cyberbullying and social media platforms, lack of anti-bully laws in schools and poverty (see section 5.10.3, Chapter 5).

6.5.3 Secondary Research Question 3

The quantitative study reveals that participants viewed an enabling learning environment as a friendly, warm, acceptable place for teaching and learning; it is referred to as where every child is warmly received without harassment or intimidation. Also, in line with Ngene *et al.* (2018:3505), the qualitative phase ascertained that it is an enhanced learning environment. In support of (Skinner-Thompson, 2022:416), it was deduced that participants established a good understanding of enabling learning environments and called for Government intervention to furnish their rural learning environment.

6.5.4 Secondary Research Question 4

The study affirmed the presence of physical, psychological, and emotional threats in the rural learning environment of the adolescent child (Cassum & Gul, 2017:108-109; Odeh *et al.*, 2015:4916). Photo evidence showed the deplorable state of the adolescents' learning environment, which is not conducive to teaching and learning (see Fig. 5.28, 5.29 and 5.30).

6.5.5 Secondary Research Question 5

Secondary Research Question 5 is centred on enhancing the learning environment of cyberbullied adolescents in a rural environment. The findings of the study affirmed the need to improve the learning environment of cyberbullied adolescents (see section 5.10.6, Chapter 5) by suggesting the following measures, which include the need for adequate enlightenment and awareness against cyberbullying; this was anticipated because adolescents and stakeholders demonstrated limited knowledge regarding the concept, nature and forms of cyberbullying (see section 6.4.1, Chapter 6). Also, to curb cyberbullying, there is a call for advocacy and legislation against it, a campaign against discrimination, reporting cyberbullying incidents, and ensuring regular inspection, supervision, monitoring, and government intervention programmes (see section 6.4.5, Chapter 6). The suggestions align with the reported literature by Zhong *et al.* (2021:13), Krešić Ćorić *et al.* (2020:271), and Seelman and Walker (2018:2301).

6.6 RECOMMENDATIONS

The following recommendations are suggested based on the findings and conclusions drawn from the study.

6.6.1 Secondary Research Question 1: What do adolescents in a rural environment understand as cyber bullying?

- The findings of the study confirmed that adolescents in a rural environment are prone to cyberbullying attacks, hence there is a need to safeguard their learning environment by providing an enabling learning environment.
- Participants (adolescents and stakeholders) demonstrated limited knowledge of cyberbullying; the findings align with Ibrahim and Vi (2021:4); thus, to eradicate cyberbullying, there should be an adequate campaign against it, with more attention given to rural learning environments.

6.6.2 Secondary Research Question 2: Which factors contribute to adolescents' cyberbullying in a rural environment?

- In secondary research question 2, factors contributing to cyberbullying among rural adolescents are identified as, peer influence, unregulated phone usage in the learning environment, discrimination, non-reporting cases, inadequate monitoring, lack of awareness, and poverty. Hence, the need to design a strategy to enhance the learning environment for cyberbullied adolescents in the rural community.

6.6.3 Secondary Research Question 3: How do adolescents perceive an enabling learning environment?

- The study's findings suggest that participants (adolescents and stakeholders) perceived an enabling learning environment as an enhanced physical, psychological and emotional environment (Cassum & Gul, 2017:108-109). His finding contradicts where the

participants live, which needs to be developed and equipped (see section 5.10.4, Chapter 5). Therefore, for the child to maximise their potential, the learning environment must be conducive and void of harassment or intimidation. Hence, there is a need to eradicate cyberbullying from the learning environment so that each child can learn without fear, intimidation, harassment or molestation. This is important to the child's personal growth and promotes learning in a safe space.

6.6.4 Secondary Research Question 4: What are the threats to enabling the learning environment of cyberbullied adolescents?

- The presence of physical, psychological, and emotional threats was identified in the rural environment of the adolescent child (see section 5.10.5, Chapter 5) (Cassum & Gul, 2017:108-109; Odeh *et al.*, 2015:4916). Thus, there is a need to design a strategy for cyberbullied adolescents in the rural learning environment; this will improve the learning space and enhance adolescents' potential.

6.6.5 Secondary Research Question 5: How can we enhance the learning environment of cyberbullied adolescents in a rural environment?

- The following suggestions were proposed to enhance the learning environment of cyberbullied adolescents in rural learning ecology: adequate enlightenment and awareness against cyberbullying, legislation against cyberbullying and provision of cyberbullying policy in schools, a campaign against discrimination, reporting cyberbullying incidents, regular inspection, supervision, monitoring, and provision of government intervention.

6.7 LIMITATIONS OF THE STUDY

One of the constraints identified was the limited number of rural schools and the deplorable road network in the rural environment. Hence, generalisation may not be possible because of the limited number of selected schools; however, the large number of adolescents that partook in the research is evidence of participants' interest in the study.

6.8 AREAS FOR FURTHER STUDIES

In the course of the study, the following areas were identified for possible elaboration and may be considered for further studies:

- Demystifying cyberbullying-based discrimination in rural high schools: implication for counselling –Mixed methods
- The emergence of cyberbullying incidences in rural high schools: a case study of six selected schools –Mixed methods
- The impact of cyberbullying on adolescents’ mental health in the rural learning environment -Quantitative study
- Relationship between cyberbullying and juvenile delinquency- Quantitative study
- The influence of cyberbullying on adolescents’ academic performance- Mixed methods
- Eradicating cyberbullying through the photovoice approach- Qualitative study

6.9 CONCLUDING SUMMARY

The chapter was guided by secondary research questions 1–5. The key findings were discussed, while research questions 1 and 3 were triangulated. Based on the study's findings, conclusions were drawn, and recommendations were proffered to enhance the learning environment of cyberbullied adolescents. The identified limitations of the study were stated, and areas for further studies were suggested. The next chapter presents the strategy designations, theoretical application, implications of the study, and the contribution to knowledge.

CHAPTER 7

STRATEGY DESIGNATIONS, IMPLICATIONS OF THE STUDY, AND CONTRIBUTION TO KNOWLEDGE

7.1 INTRODUCTION

The previous chapter encompassed the discussion of the findings, conclusions, and recommendations. In this chapter, the proposed strategy designations are presented as an application of the theoretical framework, the implications of the study, the contribution to knowledge and the study synopsis.

7.2 PRIMARY RESEARCH QUESTION

How can a strategy be designed to enhance the learning environment of cyberbullied adolescents in rural ecology?

7.3 AIM OF THE STUDY

This study aims to design a strategy that enhances the learning environment of cyberbullied adolescents in a rural ecology.

7.4 STRATEGY DESIGNATION: A STRATEGY TO ENHANCE THE LEARNING ENVIRONMENT OF CYBERBULLIED ADOLESCENTS IN RURAL LEARNING ENVIRONMENTS USING BRONFENBRENNER'S ECOLOGY SYSTEM THEORY OF DEVELOPMENT

This section presents a critical review of the theoretical framework to answer the primary research question, which is achieved by proposing a strategy to enhance the learning environment of cyberbullied adolescents in rural learning ecology using Bronfenbrenner's ecological system

theory of development (theoretical framework), findings garnered from the study, and relevant literature.

7.5 APPLICATION OF ECOLOGICAL THEORY OF HUMAN DEVELOPMENT (BRONFENBRENNER, 1979)

Bronfenbrenner's ecological system theory of human development is premised on the relationship between a child and the environment and the influence of such environment on the child's development (Oliveira *et al.*, 2020:3; Tudge & Rosa, 2019:1; Rosa & Tudge, 2013:243) (see sections 1.7.1, and 3.3, chapters 1 and 3 respectively). The theory's assumption states that a child (adolescent) does not live in isolation but in an interdependent environment called an ecosystem (Burns *et al.*, 2015:250; Bronfenbrenner, 1979:16). The component of the system consists of a microsystem, mesosystem, exosystem, and macrosystem (Ettetal & Mahoney, 2017:230; Geldenhuis & Wevers, 2013:4).

7.6 THE MICROSYSTEM

As stated in chapters 1 and 3, Bronfenbrenner (1979:22) describes the microsystem as a series of events, actions, roles, functions and interactions experienced by a growing individual in a specific environment. The microsystem components are subdivided into human and non-human elements (Zhang, 2018:1765; Johnson, 2010:34). The human components are the child, parents, siblings, peers, teachers and other immediate persons within the microsystem (Tudge *et al.*, 2017:49). The non-human components are the classroom, school environment and non-living elements that the child interacts with, including electronic devices and hardware (Vélez-Agosto *et al.*, 2017:902) (see section 3.4.1, Chapter 3).

7.6.1 Human components of the microsystem (Application to the study)

7.6.1.1 The Adolescent child

The adolescents represent the child at the centre who interacts with the components of the immediate environment (Vélez-Agosto *et al.*, 2017:901). They are referred to as active participants who engage in a series of activities within the microsystem (Campos-Gil *et al.*, 2020:2). The

study's findings indicated that adolescents' learning environment is infrastructural marginalised and underdeveloped (see section 5.10.1, Chapter 5). To enhance the learning environment of the growing adolescents, there is a need for a well-equipped and improved learning environment.

Another threat noticeable in the rural community was discrimination in the learning environment (see section 5.10.3.1.3, Chapter 5). Some adolescents were victims of cyberbullying-based discrimination because they were in the minority group, non-natives and because they couldn't speak fluent English. Hence, the advantaged who could afford phones use them as a medium to stigmatise the seemingly poor. Discrimination is unhealthy for the adolescent child and the learning environment because it might undermine the steady growth of the adolescent child (see section 5.10.3.1.3, Chapter 5). All forms of discrimination against the adolescent child must be discontinued, and teacher-student and student-student discrimination should be stopped in the learning environment (see section 5.10.3.1.3, Chapter 5). The microsystem, which is the immediate environment of the adolescent child, should be protected and made conducive to teaching and learning (Munongi & Mawila, 2022:4).

7.6.1.2 The Parents

The prevalence of cyberbullying has been associated with a lack of parental supervision and inadequate monitoring of adolescents' cyber activities (Zhong *et al.*, 2021:3). Adolescents spend considerable time on their phones and social media platforms. In contrast, parents spend less time (Symons *et al.*, 2017:423-424). This assertion is supported by Caivano *et al.* (2020:10), stating that most parents are unaware of their children's cyberbullying experience. The finding of the study affirmed these claims as adolescents testified that they do not inform their parents of their cyberbullying experience because they deem it not necessary. In contrast, those who informed their parents stopped because of parental apathy and inaction (Baruah *et al.*, 2017:138) (see section 5.10.3.1.4, Chapter 5).

Two possible ways to improve the learning environment of cyberbullied adolescents: parents could join the same online platforms their children patronise and try not to interfere except when necessary; this will facilitate proper monitoring of their kids' online activities (see section 5.10.6.1.5, Chapter 5). Secondly, they should develop open communication channels with their

kids to reduce non-disclosure incidents and take necessary action when their children report (Royne *et al.*, 2017:33). In support, Hawkins (2019:34) and Darling (2007:209-213) summarised ways parents could combat cyberbullying, which are timely parental intervention, monitoring and supervision, effective leadership styles and gaining knowledge of the adolescents.

7.6.1.3 The Peers

Empirical evidence shows that peer influence is significantly connected to cyberbullying (Yang, Gao & Wang, 2022:2). The study's findings indicated that most cyberbullying instances are usually led or stated by one person (see section 5.10.3.1, Chapter 5). Since adolescents spend the most time with friends and colleagues, parents need to monitor the kind of friends their kids keep (Ibrahim & Vi, 2021:5). In addition, bystanders shouldn't stand on the fence; they should protect victims and report cyberbullying perpetrators to the school authorities or cared adults (Piccoli *et al.*, 2020:262) (also see section 3.4.1.1).

7.6.2. Non-Human components of the microsystem

7.6.2.1 The learning environment

Chapter 3 (see section 3.3.1.2) states that the learning environment is classified into physical and psychological environments (Zhang, 2018:1765). The physical environment includes the instructional materials, the classroom space and school premises (McQuillan, 2016:58). While the psychological environment includes the interaction between staff and students, school policies, school discipline, acceptance, belongingness and the school climate (Hawkins, 2019:37; Nickerson *et al.*, 2014:160).

7.6.2.2 Application to the study

In the study, physical threats were noticed in the learning environment; participants viewed their community infrastructural as a marginalised and undeveloped community which is not conducive for teaching and learning (see section 5.10.5, Chapter 5). According to Cassum and Gul (2017:108-

109), an enabling learning environment is an enhanced psychological and emotional environment. However, findings show that participants experienced psychological and emotional threats in the learning environment (see section 5.10.5, Chapter 5). This is unsuitable for the learners as persistence may hamper the growth of the adolescent child. Studies have linked an unfriendly school climate to cyberbullying behaviours among adolescents (Bartolo *et al.*, 2019:569); therefore, both the physical and the psychological space should be structured to discourage cyberbullying and to promote teaching and learning (Ngene *et al.*, 2018:3505).

7.6.2.3 Electronic Device

Electronic devices like smartphones, tablets, laptops, and computers exist in the child's microsystems and could influence adolescents' growth and social development (Van-Hee *et al.*, 2018:1, Johnson, 2010:34). These devices can be used to improve teachers- learners' interactions and to enhance teaching and learning environment (Herselman *et al.*, 2018:1).

7.6.2 Application to the study

Previous studies confirm that many adolescents operate their own electronic devices and social media platforms without restrictions (Meter & Bauman, 2018:307). These devices can improve teacher-student interactions and enhance teaching and learning if used correctly (Herselman *et al.*, 2018:1). Though most adolescents are addicted to smartphones (Qudah *et al.*, 2019:631). Newlin *et al.* (2019:330) believe smartphones and other electronic devices should enhance teaching and learning.

7.7 THE MESOSYSTEM

The mesosystem involves the interdependency between microsystems, i.e., the flow of relationships between the home, school, peers, and communities (see section 1.7.1). It is the interaction between the adolescent child and the environment (see section 3.3.2, Chapter 3). In summary, the mesosystem is the relationship between the microsystems (Stebbleton *et al.*, 2017:359).

7.7.1 Application to the study

The mesosystem is where adolescents socialise, connect, and interact with friends, families, teachers and colleagues in school and beyond (Espelage, 2014:258). To enhance the learning environment of cyberbullied adolescents in a rural area, cyberbullying must be eradicated from the learning environment; there should be a positive interaction between the adolescent child and the components of the microsystems, the school, peers and the communities (Dishion *et al.*, 2019:42). Secondly, the physical and psychological environment must be enhanced for the adolescent child to maximise her potential (Kocayörük, 2016:4).

7.8 THE EXOSYSTEM

The ecosystem is the social environment, also referred to as the indirect environment of the adolescent child, yet the child is affected by its decisions or actions (Schofield, 2019:21; Onwuegbuzie *et al.*, 2013:5) (also see section 3.3.3, Chapter 3). It involves both the official and unofficial environment, which does not include the growing adolescents directly but is being affected by it (Oliveira *et al.*, 2020:3). The exosystem components are not exclusive to the following: mass media, local politics, social services, neighbours, and industries (Vélez-Agosto *et al.*, 2017:902).

7.8.1 Application to the study

The mass and social media fall under the purview of the exosystem. Both play a significant role in the growing child's world by sharpening the adolescent child's environment (Schofield, 2019:21). The child cannot control what is posted on social media and what is being transmitted on the mass media like television, cable satellite, radio etc.; however, they are influenced by the happenings (Oliveira *et al.*, 2020:3).

In the study, evidence shows that adolescents have access to phones and social media platforms despite living in a rural environment (see section 5.10.2 & Fig. 5.27); by implication, they attest they have been exposed to cyberbullying; hence, it is imperative to enhance the learning environment of the cyberbullied adolescents in the rural community using the tool of mass and

social media to campaign against cyberbullying. This assertion is affirmed in section 6.4.5.2, “enhancing the learning environment of cyberbullied adolescents,” where participants advocate the need for adequate enlightenment and awareness against cyberbullying (see section 6.4.5.3) and campaign against discrimination in the learning environment (see section 6.5.5.5).

7.9 THE MACROSYSTEM

The macrosystem represents the larger society in which the developing child lives (Schofield, 2019:21; Oliveira *et al.*, 2020:4). It signifies the cultural values, norms, beliefs, laws and policies that affect the developing adolescents (Hawkins, 2019:56; Geldenhuys & Wevers, 2013:4; Onwuegbuzie *et al.*, 2013:5).

7.9.1 Theoretical application to the study

In Chapter 5, participants suggested legislation against cyberbullying and implementing cyberbullying policies in schools to enhance cyberbullying adolescents' learning environment in rural learning ecology (see section 5.10.6.1, pages 150-151). In support, Wagner (2019:309) opined that legislation against cyberbullying would safeguard victims from the detrimental effects. Also, in sub-section 5.10.6.1.6, Chapter 5, participants proposed government interventions to provide social amenities to the rural community. The government should provide social services to the learning environment, e.g., counselling services and trained counsellors in all rural schools to support victims of cyberbullying. Skinner-Thompson (2022:416) urges the Government to provide an enabling learning environment to students in the learning environment. In the macrosystem, legislation and implementation of cyberbullying policies and government intervention in providing social amenities to Nigerian rural schools would enhance the learning environment of cyberbullied adolescents and safeguard the learning space.

7.10 SUMMARY OF MODIFICATION MADE TO THE ORIGINAL BRONFENBRENNER

Based on the study's findings, literature and application of the theoretical framework, the following modification was proposed for the strategy.

7.10.1 The microsystem

Microsystem was subdivided into human and non-human components.

7.10.1.1 *The human components*

The relationship among the child, parents and peers is crucial for healthy development.

7.10.1.2 *The non-human components*

The learning environment – physical and psychological environment should be enhanced.

The electronic device – use of smartphones and other devices to enhance learning.

7.10.2 The mesosystem

The mesosystem – the suggestion is that of positive interaction and the need to enhance the physical and psychological environment of the microsystem.

7.10.3 The exosystem

The mass and social media fall under the exosystem and should be used to create adequate awareness and campaign against discrimination.

7.10.4 The macrosystem

Laws and policies are implemented in the macrosystem—a suggestion of legislation against cyberbullying and provision of cyberbullying policy in schools. Secondly, government intervention is necessary to create an enabling learning environment for teaching and learning.

7.11 A PROPOSED STRATEGY TO ENHANCE THE LEARNING ENVIRONMENT OF CYBERBULLIED ADOLESCENTS

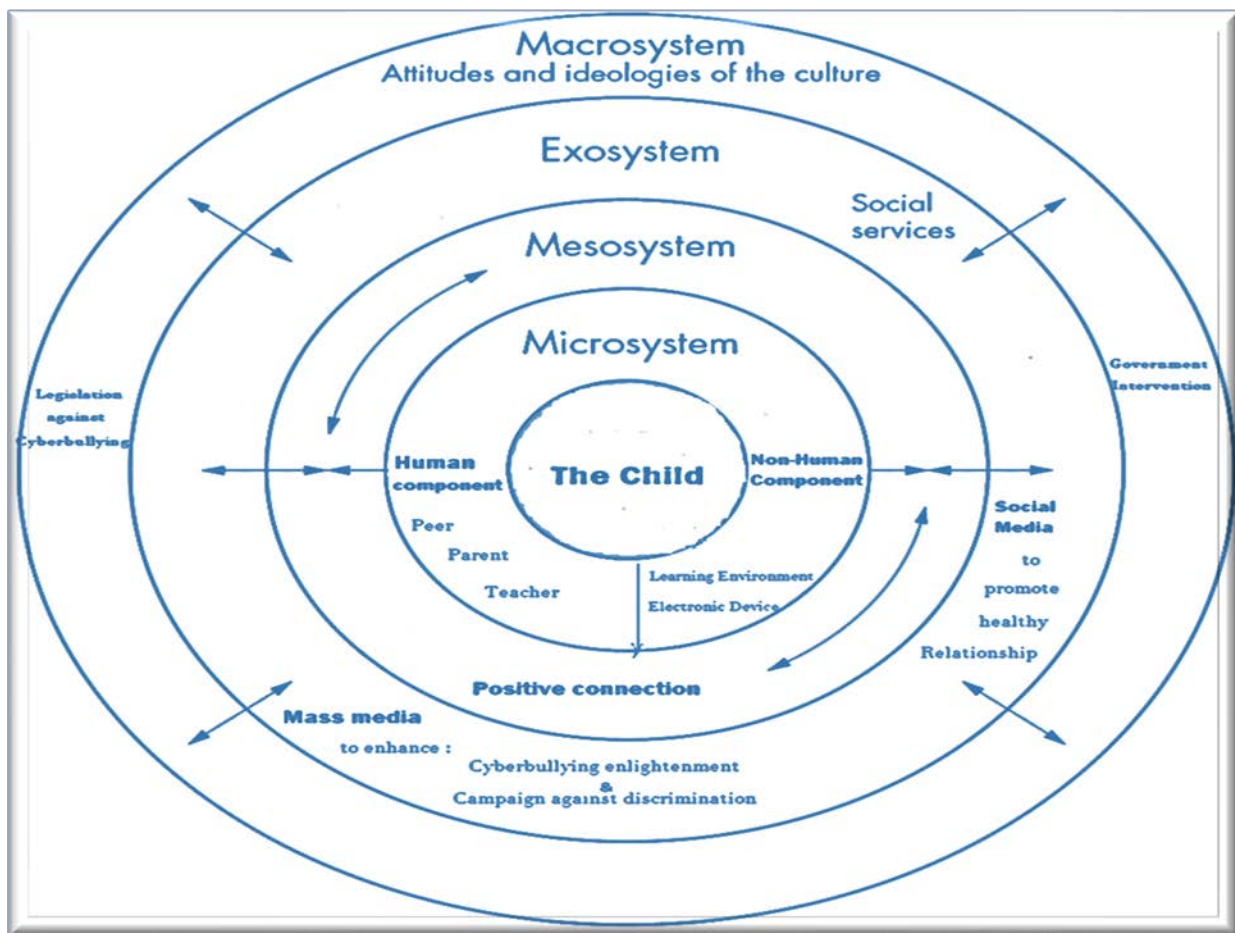


Figure 7.1: Proposed strategy

7.12 SECOND STRATEGY: A STRATEGY TO ENHANCE THE LEARNING ENVIRONMENT OF CYBERBULLIED ADOLESCENTS IN RURAL LEARNING ENVIRONMENTS USING BANDURA'S SOCIAL LEARNING THEORY AND ERIKSON'S PSYCHOSOCIAL THEORY OF DEVELOPMENT

The study aims to design a strategy that enhances the learning environment of cyberbullying adolescents in rural ecology. The theories were introduced in chapter one and discussed further in chapter three. Specifically in chapter three, interrelationships were established between Bandura's social learning theory and Erik Erikson's Psychosocial theory of Development. Bandura's theory underscores the significance of behavior, environmental factors, and personal factors in the process of learning (Chun, Lee & Kim, 2021:1). By incorporating this theory, interventions can concentrate on cultivating supportive relationships, nurturing personal attributes, and the enhancement of awareness regarding online behaviours (Rerung, 2023:45). Similarly, Erikson's theory underscores the importance of resolving the psychosocial conflict between role confusion and ego identity during adolescence (Benson & Bundick, 2020:196). This can be addressed by offering opportunities for self-exploration and skill development, fostering a sense of belonging, and promoting personal accomplishments (Chan, Cheung & Lee, 2021:2). Through the integration of these theoretical frameworks, a comprehensive approach can be formulated to cater for the psychological, social, and educational needs of cyberbullied adolescents, thereby creating a secure and supportive learning environment (Wijaya, 2022:45).

In sum, Bandura's social learning theory is based on the principles of observation, imitation and modelling (Ozoaghuta & Ojukwu, 2022:229). By implication, cyberbullying is an aggressive behaviour which adolescents learn and are exposed to by observing friends, peers, colleagues, and parents from their immediate or virtual environments (Ibrahim & Vi, 2021:5; Powell, Scott, & Henry, 2020:199). The behaviour is enforced through imitation and persists through modelling (Ozoaghuta & Ojukwu, 2022:229). Equally, according to Erik Erikson's Psychosocial theory of Development, adolescents encounter and struggle with role confusion versus identity issues at the adolescence stage of their lives and are exposed to anti-social behaviours. The inability to resolve

this crisis may jeopardise their psychological and emotional growth (Kitchens & Abell, 2020:1254). Hence, cyberbullying should be eradicated from the learning environment to create a conducive learning environment for cyberbullied adolescents, and this can be achieved by implementing the findings of this study to enhance the learning environment (see chapter 5, table 5.12, p.106).

In this study, the learning environment encompasses both the physical and psychological aspects (Zhang, 2018:1765). The physical environment includes instructional materials, classroom space, and school premises (McQuillan, 2016:58). Similarly, the psychological environment includes the interaction between staff and students, school policies, school discipline, acceptance, and the school climate (Hawkins, 2019:37; Nickerson, Singleton, Schnurr & Collen, 2014:160). Both the physical and psychological environment should be organised in a way that discourages the occurrence of cyberbullying. According to Pennell, Campbell, and Tangen (2020:285), addressing cyberbullying in the educational setting involves implementing policies against bullying and fostering a culture of mutual respect among students. Additionally, it is recommended to implement intervention programs within schools to eliminate the prevalence of cyberbullying in the educational environment (Byers, Mishna & Solo, 2019:2; Hawkins, 2019:37). The diagram below shows the interrelationships among the three components of behaviour, personal and environmental factors. Also, it indicates the extended environmental factors implement in the study.

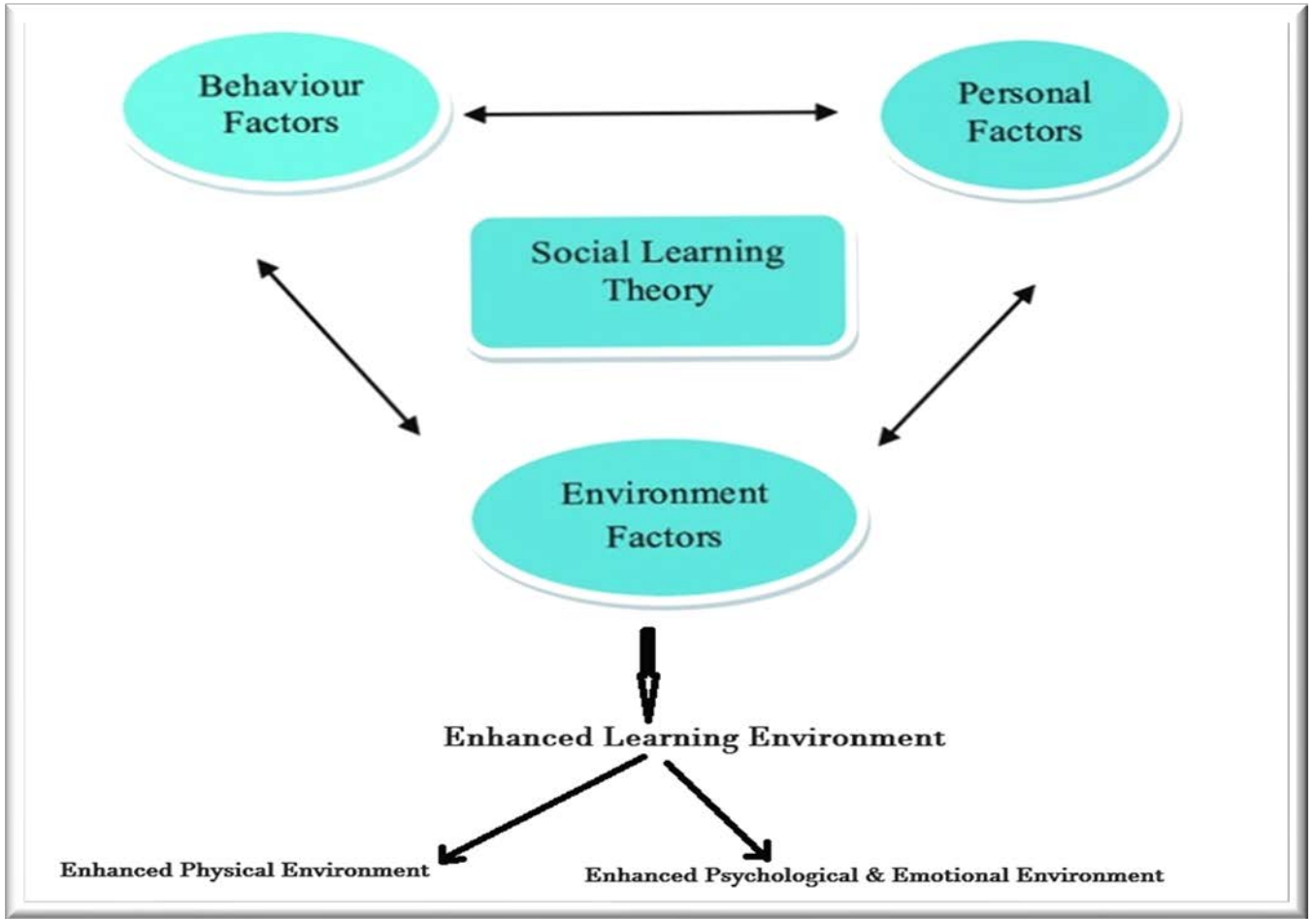


Figure 7.2: Proposed strategy 2

7.13 Interrelatedness and Application of the Three Theories to Study

The integration of Bandura's social learning theory, Erikson's psychosocial development theory, and Bronfenbrenner's ecological systems theory offers a comprehensive approach to understanding and addressing cyberbullying among adolescents in rural areas (Mulisa, 2019:104; Gallo, 2021:11; Chan, et al., 2021:2). Bandura's theory sheds light on how aggressive behaviours are learned and reinforced (Ozoaghuta and Ojukwu, 2022:226), while Erikson's theory emphasises the developmental challenges adolescents encounter, such as the need for identity and belonging (Okunev, 2022:49). Bronfenbrenner's theory complements this by providing a framework to understand the broader environmental influences on behaviour, including family, school, and community factors (Hong, et al., 2018:328). By combining these perspectives, interventions can focus on fostering supportive relationships, promoting positive role models, and addressing environmental factors to meet the psychological, social, and educational needs of cyberbullied adolescents effectively (Zhang, 2018:1765).

7.13.1 Practical Implementation

In this study, to address cyberbullying effectively in the school environment, it is crucial to consider both the physical and psychological aspects of the learning environment (Hawkins, 2019:37). The physical environment should encompass well-designed school premises, adequate instructional materials, and appropriate classroom space to create a conducive setting for learning (Byers, et al., 2019:2). In addition, the psychological environment should focus on fostering positive interactions between staff and students, implementing clear school policies, ensuring effective discipline measures, and cultivating a supportive school climate (Eriksson *et al.* 2018:426; Garbarino, 2017:160; Hawkins, 2019:56). By integrating these suggestions, schools can create a holistic environment that promotes mutual respect, positive school culture, and ultimately addresses cyberbullying by providing a safe and nurturing space for all students (Van Hee *et al.*, 2018:2).

7.14. IMPLICATION OF THE STUDY USING TRANSFORMATIVE PHILOSOPHICAL ASSUMPTIONS

The implication is positioned by the transformative philosophical assumptions of the study. As chapters one and four explain, the transformative paradigm guides the study (see sections 1.8.1 and chapter 4 respectively). According to Mertens (2017:21), the transformative paradigm is centred on the emancipation of the oppressed and the socially marginalised individuals, groups, or communities. It addresses power differences, emphasises social justice, and promotes a democratic research process among the researcher, participants, and relevant stakeholders within a community (Phelps, 2020:1). The implications of the study for policymakers, the research process and the participants are discussed below:

7.14.1 Implications for policymakers

The transformative paradigm suggests the inclusion of stakeholders in the research process to investigate and answer the phenomenon under investigation (Phelps, 2020:1; Mertens, 2017:20). It advocates for programme evaluation, implementation and effective policymaking by engaging stakeholders within the community with a focus on bringing a positive change to society (Diercks *et al.*, 2019:881). There are several policymakers in the education sector. For this study, the following were interviewed to provide a first opinion on how to design a strategy for cyberbullied adolescents; this includes school counsellors, class teachers, students (adolescents), school administrators and parents selected from the school parent-teacher association (PTA); all participants were chosen from the rural environment of the study area (see section 4.4.2, Chapter 4). Implementing the findings by policymakers will enhance the learning environment of marginalised, infrastructural deficit cyberbullied adolescents in rural areas.

7.14.2 Implications for the participants

The participants are primarily adolescents and stakeholders. The transformative paradigm emphasises the engagement and inclusion of stakeholders in the research process (Diercks *et al.*, 2019:881). It calls for the emancipation of the oppressed and the collaboration of relevant stakeholders in the research process (Kivunja & Kuyini, 2017:28).

To create an enabling learning environment for cyberbullied adolescents, the transformative researcher must recognise the voice of the participants and see them as co-researchers (Mertens, 2017:20). The transformative researcher should ensure equity among participants and see participants as enablers and able to solve their problems when guided (Okesina, 2020:59). Also, stakeholders in the community should be involved in decision-making. At the same time, feedback from the findings should be conveyed to the participants. Implementing the study's findings will ensure that marginalised cyberbullied adolescents are liberated and given a voice.

7.14.3 Implications for research

According to the transformative paradigm, research should be done first ethically; second, the findings of the study should be used to promote social change, equity, and transformation of the marginalised community (Phelps, 2020:4). In this study, enhancing the learning environment of cyberbullied adolescents in a rural environment is one way to ensure social justice for marginalised and oppressed adolescents in the rural community (Mertens, 2017:18; 2015:76). Also, to ensure this, the researcher shall publish the outcomes of the findings to the general public and call for policy implementation.

7.15 CONTRIBUTION TO KNOWLEDGE

The following are specific areas of contributions to knowledge.

7.15.1 Empirical Contribution

The study found a gap created by a need for more emphasis on cyberbullying prevalence in rural areas in contrast to previous studies that focused on cyberbullying incidences in urban, cities and metropolitans (Zhu *et al.*, 2021:2; Abaido, 2020:410; Farhangpour *et al.*, 2019:2). In addition, empirical evidence from available literature and the findings of the study confirmed the prevalence of cyberbullying in the rural learning environment (Farhangpour *et al.*, 2019:2; Reason *et al.*, 2016:2331) (also see section 5.5.2).

7.15.2 Theoretical Contribution

The study presented strategies/models for cyberbullied adolescents living in rural communities. The proposed strategies improve Bronfenbrenner's ecological theory based on present and modern realities (see sections 7.4 and 7.5, and Fig. 7.1). Also, Bandura's social learning theory and Erikson's theory of psychosocial development were integrated to enrich the study, if implemented, the models would enhance the learning environment of cyberbullying adolescents in rural areas and curb cyberbullying among adolescents.

7.15.3 Methodological Contribution

The study unravelled the phenomenon under investigation using a photovoice methodology as one of the data collection techniques. Although photovoice started in rural China it has also been used in previous research with great success to enhance different studies (Derr & Simons, 2020:359; Latz, 2017:3). Additionally, Nigeria is a predominantly quantitative research-driven country with less emphasis on qualitative research studies (Umeokafor & Windapo, 2018:198). The application of photovoice research would give marginalised rural adolescents a voice by depicting their community to the world. It will also promote opportunities for change and the emancipation of cyberbullied adolescents in rural communities (Tsang, 2020:136). Photovoice has been found to build trust between researchers and participants by viewing research from participants' points of view and revealing insights that other research methods may overlook (Manasia, 2017:453).

7.16 THE STUDY SYNOPSIS

- The study aims to design a strategy (model) that enhances the learning environment of cyberbullied adolescents in a rural community.
- The study affirmed that cyberbullying threatens the learning environment, especially in rural areas.
- Rural adolescents are also exposed to cyberbullying.
- An enhanced learning environment is not limited to the classroom; it is a conducive, warm, and acceptable place where every learner is received without discrimination or intimidation.
- The rural learning environment of the participating adolescents is marginalised and infrastructurally inadequate.
- Cyberbullying threatens the learning environment, especially in rural areas; hence, cyberbullied adolescents are expected to benefit from the strategy/model.

7.17 CONCLUSION

The study was concluded with the presentation of the strategies designation and a review of the application of theoretical frameworks. The strategies were grounded on three theoretical frameworks: Bronfenbrenner's Ecological Systems Theory of Development, Bandura's Social Learning Theory, and Erik Erikson's Theory of Psychosocial Development. Also, the implications of the study for policymakers, participants, and research purposes were discussed. Additionally, the empirical, theoretical, and methodological contributions of the study are examined. In sum, this study aimed to design a strategy to enhance the learning environment of cyberbullied adolescents in rural ecology. However, based on the findings of the study, strategies were discovered and presented.

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APPENDICES

APPENDIX A: ETHICAL CLEARANCE



GENERAL/HUMAN RESEARCH ETHICS COMMITTEE (GHREC)

03-Nov-2019

Dear Mr Olotu, Olukoya OA

Application Approved

Research Project Title:

A strategy to enhance enabling learning environment for cyberbullied adolescents in a rural ecology

Ethical Clearance number:

UFS-HSD2019/1688

We are pleased to inform you that your application for ethical clearance has been approved. Your ethical clearance is valid for twelve (12) months from the date of issue. We request that any changes that may take place during the course of your study/research project be submitted to the ethics office to ensure ethical transparency. Furthermore, you are requested to submit the final report of your study/research project to the ethics office. Should you require more time to complete this research, please apply for an extension. Thank you for submitting your proposal for ethical clearance; we wish you the best of luck and success with your research.

Yours sincerely

Prof Derek Litthauer

Chairperson: General/Human Research Ethics Committee

Digitally signed
by Derek
Litthauer
Date: 2019.11.03
20:18:27 +02'00'

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**APPENDIX B: PERMISSION LETTER FROM THE MINISTRY OF EDUCATION,
SCIENCE AND TECHNOLOGY**



EKITI STATE OF NIGERIA
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
State Secretariat Complex, Ado-Ekiti, Ekiti State, Nigeria
SCHOOLS DEPARTMENT

Your Ref. No.....

**All Communication should be addressed to
The Permanent Secretary Quoting:
EK/ED/SCHLS/111/92**

CJK
September, 2019.

Olukoya Adewale Olotu,
Faculty of Education,
Ekiti State University,
Ado Ekiti.

APPROVAL TO CONDUCT RESEARCH IN SCHOOLS

I am directed to inform you that the Ministry has approved your request to carry out research in some selected community secondary schools in Ekiti State.

2. In view of this approval, you are advised to liaise with the management of the schools, in order to discuss the modalities necessary for a smooth conduct of the exercise.
3. Please ensure that you do not interrupt planned academic programmes of the schools in the course of your research activities.
4. You are advised to treat data collected with utmost confidentiality, please.

E.A. Daramola
For: Permanent Secretary

APPENDIX C: REQUEST FOR PERMISSION TO CONDUCT RESEARCH – EKITI STATE MINISTRY OF EDUCATION



REQUEST FOR PERMISSION TO CONDUCT RESEARCH

The Permanent Secretary,
Ekiti State Ministry of Education, Secretariat, New Iyin Road, Ado-Ekiti, Nigeria.

I am doing research and would like to request permission to conduct my research at Junior and Senior public secondary schools in a rural community of Ekiti State, Nigeria.

DATE

1st September 2019

TITLE OF THE RESEARCH PROJECT

A strategy to enhance enabling learning environment for cyberbullied adolescents in a rural ecology

PRINCIPLE INVESTIGATOR / RESEARCHER(S) NAME(S) AND CONTACT NUMBER(S):

Ohukoya Adewale Olotu

[Click here to enter text.](#)

FACULTY AND DEPARTMENT:

Faculty of Education
School of Education Studies Department
Specialisation- Psychology of Education

STUDY LEADER(S) NAME AND CONTACT NUMBER:

Dr. C. Beyers

[Click here to enter text.](#)

WHAT IS THE AIM / PURPOSE OF THE STUDY?

The increasing rate of cyberbullying among adolescents' learners in rural ecology calls for urgent attention. Though, attention has been drawn to cyberbullying activities among teenagers in urban learning environments. Lately, there have been reported cases of cyberbullying activities among adolescents in rural learning ecology and this has been on the rise. Hence, this study aims to design a strategy that will enhance an enabling learning environment for cyberbullied adolescents in a rural ecology.



WHO IS DOING THE RESEARCH?

I am a lecturer from Ekiti State University, Faculty of Education, Department of Guidance and Counselling, Ado-Ekiti, Nigeria. I am currently pursuing a PhD in Psychology of Education, at the University of the Free State, South Africa. My passion for adolescents and her enabling learning environment has made me embark on this study which I believe will be of immense benefits to the growing number of Nigerian adolescents.

HAS THE STUDY RECEIVED ETHICAL APPROVAL?

This study has received approval from the Research Ethics Committee of UFS. A copy of the approval letter can be obtained from the researcher.

Approval number: *Insert approval number*

WHY ARE YOUR INSTITUTION/ORGANISATION/COMPANY INVITED TO TAKE PART IN THIS RESEARCH PROJECT?

The Ministry of Education, Ekiti State, Nigeria, is hereby invited to partake in this research project considering her supervision, policy formulation and implementation roles in the Education sector within the state. Since the study shall involve the participation of secondary schools' adolescents and relevant stakeholders in Education, it is therefore imperative to contact the Permanent Secretary in the ministry for necessary approval.

WHAT IS THE NATURE OF PARTICIPATION IN THIS STUDY?


The study is mixed method research, consisting of quantitative and qualitative approaches. The estimate population is 204 participants, comprises of 196 adolescents (target age 12-18) and 8 stakeholders (target age 35-65). To carry out the study, based on a creative system survey software, 196 intending adolescents shall partake in the quantitative strand (The first phase), which shall include the administration of survey questionnaires to prospective adolescents. While the qualitative strand (the second phase), out of the 196, 10 adolescents shall be selected to partake in a focus group and photo voice sessions. In addition, in a separate session, 8 stakeholders shall partake in the semi-structured interview sessions. This shall include 2 principals, 2 counsellors, 2 teachers and 2 parents. The questionnaire session (first phase) shall take approximately 15 minutes to be completed. While the focus group discussion (minimum of two sessions) and photo voice interaction (minimum of two sessions) shall take 120 minutes per session. The expected duration for the semi-structured interview (minimum of two sessions) is intended to be 120 minutes per session. Participants will be asked questions about fostering an enabling learning environment for cyberbullied adolescents. Adolescents not comfortable with any questions raised are allowed to inform their respective parents if they ever experience such and can withdraw at any stage of the research process.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

This study is poised to enhance adolescents' understanding of an enabling learning environment. Also, participants shall be exposed to photovoice data generation techniques which will facilitate a better understanding of enabling learning environment. Participating stakeholders shall gain knowledge on how to create an enabling learning environment for cyberbullied learners within the rural ecology. Primarily, the study shall help the rural community to eliminate cyberbullying activities among adolescents. In addition, the research shall contribute to global knowledge by introducing a new strategy for cyberbullied adolescents. Subject participation shall be strictly kept confidential.

APPENDIX D: APPROVAL FROM THE TEACHING SERVICE COMMISSION - EKITI

E-mail: tescom2010@yahoo.com Tel: 030 250217
P.M.B. 6368



TEACHING SERVICE COMMISSION
EKITI STATE OF NIGERIA
ADO EKITI
PR & S
.....DEPARTMENT

Your Ref No:
All communications should be addressed
to the Permanent Secretary, writing


Our Ref No: EKITSC/PR&S/RI/165/192 *Date: 17th Sept., 2019*

The Principals,
Public Secondary Schools,
Ekiti State.

LETTER OF AUTHORITY

Above matter refers, please.

1. I am directed to introduce to you, Mr Olukoya Adewale Olatu, a post graduate student in the Ekiti State University, Ado Ekiti.
2. Ekiti State Teaching has authorised her to collect data on the strategy to enhance enabling learning environment of cyberbullied adolescents in a rural ecology.
3. Kindly render the required assistance to her, please.


Akinwande Ogunayo
For: Permanent Secretary.

APPENDIX E: REQUEST FOR PERMISSION TO CONDUCT RESEARCH TEACHING SERVICE COMMISSION - EKITI



REQUEST FOR PERMISSION TO CONDUCT RESEARCH

The Permanent Secretary,
Teaching Service Commission, Secretariat, New Iyin Road, Ado-Ekiti, Nigeria.

I am doing research and would like to request permission to conduct my research at Junior and Senior Public Secondary schools in a rural community of Ekiti State, Nigeria.

DATE

1st September, 2019

TITLE OF THE RESEARCH PROJECT

A strategy to enhance enabling learning environment for cyberbullied adolescents in a rural ecology

PRINCIPLE INVESTIGATOR / RESEARCHER(S) NAME(S) AND CONTACT NUMBER(S):

Olukoya Adewale Olotu 2017492915

FACULTY AND DEPARTMENT:

Faculty of Education
School of Education Studies Department
Specialisation- Psychology of Education

STUDY LEADER(S) NAME AND CONTACT NUMBER:

Dr C. Beyers

WHAT IS THE AIM / PURPOSE OF THE STUDY?

The increasing rate of cyberbullying among adolescents learners in rural ecology calls for urgent attention. Though, attention has been drawn to cyberbullying activities among teenagers in urban learning environments. Lately, there have been reported cases of cyberbullying activities among adolescents in rural learning ecology and this has been on the rise. Hence, this study aims to design a strategy that will enhance an enabling learning environment for cyberbullied adolescents in a rural ecology.



WHO IS DOING THE RESEARCH?

I am a lecturer from Ekiti State University, Faculty of Education, Department of Guidance and Counselling, Ado-Ekiti, Nigeria. I am currently pursuing a PhD in Psychology of Education at the University of the Free State, South Africa. My passion for adolescents and her enabling learning environment has made me embark on this study, which I believe will immensely benefit the growing number of Nigerian adolescents.

HAS THE STUDY RECEIVED ETHICAL APPROVAL?

This study has received approval from the Research Ethics Committee of UFS. A copy of the approval letter can be obtained from the researcher.

Approval number: *Insert approval number*

WHY ARE YOUR INSTITUTION/ORGANISATION/COMPANY INVITED TO TAKE PART IN THIS RESEARCH PROJECT?

The Teaching Service Commission, Ekiti State, Nigeria is hereby invited to partake in this research project considering her recruitment, transfer, promotion and implementation roles in the Education sector within the state. Since the study shall involve the participation of secondary schools' adolescents and relevant stakeholders in Education, it is therefore imperative to contact the Permanent Secretary in the ministry for necessary approval.

WHAT IS THE NATURE OF PARTICIPATION IN THIS STUDY?

The study is mixed-method research consisting of quantitative and qualitative approaches. The estimated population is 204 participants, comprises of 196 adolescents (target age 12-18) and 8 stakeholders (target age 35-65). To carry out the study, based on a creative system survey software, 196 intending adolescents shall partake in the quantitative strand (The first phase), which shall include the administration of survey questionnaires to prospective adolescents. While the qualitative strand (the second phase), out of the 196, 10 adolescents shall be selected to partake in a focus group and photo voice sessions. In addition, in a separate session, 8 stakeholders shall partake in the semi-structured interview sessions. This shall include 2 principals, 2 counsellors, 2 teachers and 2 parents. The questionnaire session (first phase) shall take approximately 15 minutes to be completed. While the focus group discussion (minimum of two sessions) and photo voice interaction (minimum of two sessions) shall take 120 minutes per session. The expected duration for the semi-structured interview (minimum of two sessions) is intended to be 120 minutes per session. Participants will be asked questions about fostering an enabling learning environment for cyberbullied adolescents. Adolescents not comfortable with any questions raised are allowed to inform their respective parents if they ever experience such and can withdraw at any stage of the research process.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

This study is poised to enhance adolescents' understanding of an enabling learning environment. Also, participants shall be exposed to photovoice data generation techniques which will facilitate a better understanding of enabling learning environment. Participating stakeholders shall gain knowledge on how to create an enabling learning environment for cyberbullied learners within the rural ecology. Primarily, the study shall help the rural community to eliminate cyberbullying activities among adolescents. In addition, the research shall contribute to global knowledge by introducing a new strategy for cyberbullied adolescents. Subject participation shall be strictly kept confidential.

APPENDIX F: CHILD ASSENT FORM



PARTICIPANT INFORMATION LEAFLET AND ASSENT FORM



TITLE OF THE RESEARCH PROJECT: A strategy to enhance enabling learning environment for cyberbullied adolescents in a rural ecology.

RESEARCHERS NAME(S): MR. OLUKOYA ADEWALE OLOTU

ADDRESS: Department of Guidance & Counselling, Faculty of Education, Ekiti State University, Ado-Ekiti, Nigeria.

CONTACT NUMBER:

What is RESEARCH?

Research is something we do to find new knowledge about the way things and people work. We use research projects or studies to help us find out more about how to improve our environment or ways of life. Research also helps us to find better ways of helping, or treating sick children.

What is this research project all about?

This project is based on helping cyberbullied adolescents in a rural community to understand the meaning of online bullying and how it interferes with their learning. It will go further to proffer suggestions on how to create a good learning environment for cyberbullied adolescents in rural areas.

Why have I been invited to take part in this research project?

You are invited to participate in this project because you are considered a co-project participant. Since learners are stakeholders in education, your participation will help us hear your voice and know your opinion, this will help policy makers make an informed decision.

Who is doing the research?

I am a lecturer from the Department of Guidance and Counselling, Ekiti State University, Ado-Ekiti, Nigeria. I am pursuing a Doctorate degree at the University of the Free State, South Africa. My research interest is adolescent's development and their learning environment.

What will happen to me in this study?

This research is in two phases, and you are considered a co-participant. In the first phase, you are expected to partake in questionnaire activities. The estimated duration is 30 minutes. The second phase however, will consist of 10 selected adolescents who will partake in a 90 minutes (per session) focus group discussion and photo voice sessions.

Can anything bad happen to me?

Nothing bad is likely to happen to you as a result of this study. However, if something unintended happens e.g pain or sickness as a result of the study, kindly inform your parents or guardians. In addition, you are permitted to withdraw at any stage.

Can anything good happen to me?

Yes. The benefits are both immediate and future. You will be taught how to generate data using photo voice techniques. Photo voice involves collection of information through the use of photo interpretation.

Will anyone know I am in the study?

All information provided will be guided with confidentiality. Your name will not be mentioned, nor the answer provided be linked to you; however, your information may be shared with the supervisor. Your participation will be kept confidential.



What if I do not want to do this?

You can refuse to take part even if your parents have agreed to your participation. Also, if you are not comfortable you can stop being in the study at any time without getting in trouble.

Do you understand this research study and are you willing to take part in it?

 YES NO

Has the researcher answered all your questions?

 YES NO

Do you understand that you can pull out of the study at any time?

 YES NO

Signature of Child

Date

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

TITLE OF THE RESEARCH PROJECT: A strategy to enhance enabling learning environment for cyberbullied adolescents in a rural ecology.

REFERENCE NUMBER:

PRINCIPAL INVESTIGATOR: MR. OLUKOYA ADEWALE OLOTU

ADDRESS: Department of Guidance & Counselling, Faculty of Education, Ekiti State University, Ado-Ekiti, Nigeria.

CONTACT NUMBER:

You are being invited to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the study staff any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary**, and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the Research Ethics Committee at the University of the Free State and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

What is this research study all about?

The study aims to design a strategy that will enhance enabling learning environment for cyberbullied adolescents in rural ecology. Hence, the study shall be conducted in rural secondary schools of Ekiti State. It is a mixed method research; consisting of quantitative and qualitative approaches. The estimate population is 204 participants; comprises of 196 adolescents (target age 13-18) and 8 employees (target age 35-65). To carry out the study, based on creative system survey software, 196 intending adolescents shall partake in the quantitative strand (The first phase), which shall include administration of survey questionnaires to prospective adolescents. While the qualitative strand (the second phase), out of the 196, 10 adolescents shall be selected to partake in a focus group and photo voice sessions. In addition, in a separate session, 8 employees shall partake in the semi- structured interview sessions. This shall include 2 principals, 2 counsellors, 2 teachers and 2 working parents. The questionnaire session (first phase) shall take approximately 30 minutes to be completed. While the focus group discussion (minimum of two sessions) and photo voice interaction (minimum of two sessions) shall take 90 minutes per session. The expected duration for the semi-structured interview is intended to be 90 minutes per session. Questions pertaining to fostering an enabling learning environment for cyberbullied adolescents shall be asked participants. Adolescents not comfortable with any questions raised are allowed to inform their respective parents if they ever experience such and can withdraw at any stage of the research process.

Why have you been invited to participate?

You are invited to partake in this study because you are considered as a major stakeholder who is also viewed as co-participant . Your knowledge and contribution shall be of value and enrichment to the study .

What will your responsibilities be?

The study is in two stages. In the first stage , you shall partake in an approximately 30 minutes questionnaire activity, and probably in the second phase (90 minutes per session) which is a photo voice and focus group sessions.

Will you benefit from taking part in this research?

The study will give you a better understanding of an enabling learning environment. More so, you shall be taught cyberbullying coping strategy. Among many, you shall be exposed to photo voice data generation techniques.

Are there in risks involved in your taking part in this research?

Though unlikely, in case of any unforeseen situation, the researcher shall collaborate with the State Ministry of Education to forestall any unforeseeable crisis. Services of professional counsellors shall be engaged when necessary and where is beyond their competence, appropriate referrals shall be made.

Will you be paid to take part in this study and are there any costs involved?

No, you will not be paid to take part in the study but supporting logistics shall be provided. There will be no costs involved for you if you do take part.

APPENDIX G: INFORMED CONSENT – PARENTAL CONSENT



RESEARCH STUDY INFORMATION LEAFLET AND PARENTAL CONSENT FORM

DATE

2nd September, 2019

TITLE OF THE RESEARCH PROJECT

A strategy to enhance enabling learning environment for cyberbullied adolescents in a rural ecology

RESEARCHERS NAME(S) AND CONTACT NUMBER:

Olukoya Adewale Olotu

FACULTY AND DEPARTMENT:

EDUCATION

Guidance & Counselling

STUDY LEADER(S) NAME AND CONTACT NUMBER:

Dr. C. Beyers

Contact number

WHAT IS THIS RESEARCH PROJECT ALL ABOUT?

This project is based on helping cyberbullied adolescents in a rural community to understand the meaning of online bullying and how it interferes with their learning. It will go further to proffer suggestions on how to create a good learning environment for cyberbullied adolescents in rural areas.

WHY HAVE YOUR CHILD BEEN INVITED TO TAKE PART IN THIS RESEARCH PROJECT?

You are invited to participate in this project because you are considered a co-project participant. Since learners are stakeholders in education, your child's participation will help us hear his/her voice and opinion on the subject of study; this will also assist policy makers make informed decisions.

WHO IS DOING THE RESEARCH?

I am Olukoya Adewale Olotu, a lecturer from the Department of Guidance and Counselling, Ekiti State University, Ado-Ekiti, Nigeria. I am pursuing a Doctorate degree at University of the Free State, South Africa. My research interest is adolescent's development and their learning environment.



HAS THE STUDY RECEIVED ETHICAL APPROVAL?

This study has received approval from the Research Ethics Committee of UFS. A copy of the approval letter can be obtained from the researcher.

Approval number: *Insert approval number*

WHAT WILL HAPPEN TO YOUR CHILD IN THIS STUDY?

This research is in two phases and your child is considered a co-participant. In the first phase, your child is expected to partake in a questionnaire session. The estimated duration is 30 minutes. The second phase however, will consist of 10 selected adolescents who will partake in 90 minutes (per session) focus group discussion and photo voice sessions.

CAN ANYTHING BAD HAPPEN TO YOUR CHILD?

Nothing bad is likely to happen to your child as a result of this study. However, if something unintended happens e.g pain or sickness as a result of the study, your child has the right to inform you. In addition, he or she is permitted to withdraw at any stage.

CAN ANYTHING GOOD HAPPEN TO YOUR CHILD?

Yes. The benefits are both immediate and future. Your child will be taught how to generate data using photo voice techniques. Photo voice involves collection of information through the use of photo interpretation. Your child will also be exposed to what constitutes enabling learning environment and how to foster it.

WILL ANYONE KNOW YOUR CHILD IS PART OF THE STUDY?

All information provided will be guided with confidentiality. Your name will not be mentioned nor the answer provided be linked to you, however, your information may be shared with the supervisor. Your participation will be kept confidential.

WHO CAN YOU TALK TO ABOUT THE STUDY?

1. Professor Eunice Osakinle; Counselling Psychologist, Guidance & Counselling Department, Ekiti State University, Ado-Ekiti, Nigeria 2. Professor Olufunke Ogunsanmi, Counselling Psychologist.

WHAT IF YOU DO NOT WANT YOUR CHILD TO DO THIS?

You can refuse your child to participate in the study, or your child also has the right to decline even if you are granted permission to participate. Also, if you are not comfortable, you can stop being in the study at any time without getting in trouble.

PLEASE RETURN

Name of child: _____

Name of Parent: _____

- Do you understand this research study and are you willing to let your child take part in it? Yes No
- Has the researcher answered all your questions? Yes No
- Do you understand that you can withdraw from the study at any time? Yes No
- I give the researcher permission to make use of the data gathered from my child's participation Yes No

Signature of Parent

Date



APPENDIX H: REQUEST FOR PERMISSION TO CONDUCT RESEARCH – STAKEHOLDERS



REQUEST FOR PERMISSION TO CONDUCT RESEARCH

The Stakeholders,
Ekiti State Ministry of Education, New Iyin Road, Ado-Ekiti

I am doing research and would like to request permission to conduct my research at selected rural secondary schools in Ekiti State, Nigeria.

DATE

2nd September 2019

TITLE OF THE RESEARCH PROJECT

A strategy to enhance enabling learning environment for cyberbullied adolescents in a rural ecology

PRINCIPLE INVESTIGATOR / RESEARCHER(S) NAME(S) AND CONTACT NUMBER(S):

Ohukoya Adewale Olotu

FACULTY AND DEPARTMENT:

Faculty of Education
School of Education Studies Department
Specialisation- Psychology of Education

STUDY LEADER(S) NAME AND CONTACT NUMBER:

Dr. C. Beyers

WHAT IS THE AIM / PURPOSE OF THE STUDY?

This study aims to design a strategy that will enhance an enabling learning environment for cyberbullied adolescents in a rural ecology. The increasing rate of cyberbullying among adolescents' learners in rural ecology calls for urgent attention. Though, attention has been drawn to cyberbullying activities among teenagers in urban learning environments. Lately, there have been reported cases of cyberbullying activities in rural learning ecology and this has been on the rise, this thereby underscore the need for the study.



WHO IS DOING THE RESEARCH?

I am a lecturer from Ekiti State University, Faculty of Education, Department of Guidance and Counselling, Ado-Ekiti, Nigeria. I am currently pursuing a PhD in Psychology of Education, at the University of the Free State, South Africa. My passion for adolescents and her enabling learning environment has made me embark on this study which I believe will be of immense benefits to the growing number of Nigerian adolescents.

HAS THE STUDY RECEIVED ETHICAL APPROVAL?

This study has received approval from the Research Ethics Committee of UFS. A copy of the approval letter can be obtained from the researcher.

Approval number: *Insert approval number*

WHY ARE YOUR INSTITUTION/ORGANISATION/COMPANY INVITED TO TAKE PART IN THIS RESEARCH PROJECT?

The Ministry of Education, Ekiti State, Nigeria, is a collaborator and a major stakeholder in education. This is also in line with her supervision, policy formulation and implementation roles in the Education sector. Since the study shall involve the participation of secondary school adolescents and relevant employees/stakeholders of the ministry, it is therefore imperative to contact the Permanent Secretary in the ministry for necessary approval.

WHAT IS THE NATURE OF PARTICIPATION IN THIS STUDY?

The study is mixed method research, consisting of quantitative and qualitative approaches. The estimated population is 204 participants, comprising 196 adolescents (target age 12-18) and 8 stakeholders (target age 35-65). To carry out the study, based on a creative system survey software, 196 intending adolescents shall partake in the quantitative strand (The first phase), which shall include the administration of survey questionnaires to prospective adolescents. While the qualitative strand (the second phase), out of the 196, 10 adolescents shall be selected to partake in a focus group and photo voice sessions. In addition, in a separate session, 8 stakeholders shall partake in the semi-structured interview sessions. This shall include 2 principals, 2 counsellors, 2 teachers and 2 parents. The questionnaire session (first phase) shall take approximately 30 minutes to be completed. While the focus group discussion (minimum of two sessions) and photo voice interaction (minimum of two sessions) shall take 90 minutes per session. The expected duration for the semi-structured interview is intended to be 90 minutes per

session. Participants will be asked questions about fostering an enabling learning environment for cyberbullied adolescents. Adolescents not comfortable with any questions raised are allowed to inform their respective parents if they ever experience such and can withdraw at any stage of the research process.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

The study is poised to enhance adolescents' understanding of an enabling learning environment. Participants shall be introduced to new approach to dealing with cyberbullying. The study's outcome will equally enhance the knowledge of the community and the larger society on how to provide enabling environment for cyberbullied learners.

WHAT ARE THE POTENTIAL RISKS TAKING PART IN THIS STUDY?

Though unlikely, in case of any unforeseen situation, the researcher shall collaborate with the State Ministry of Education and the Teaching Service Commission to forestall any unforeseeable crisis. Services of professional counsellors shall be engaged when necessary and where is beyond their competence, appropriate referrals shall be made.

WILL THE INFORMATION BE KEPT CONFIDENTIAL?

Confidentiality shall be strictly maintained throughout the study. No name will be recorded anywhere, and no one will be able to connect you to the answers you give. Your answers will be given a pseudonym and you will be referred to as such. Anonymity and confidentiality will also be ensured in case of any publications or other research reporting methods, such as conference proceedings. Your answers may be reviewed by people responsible for making sure the research is done properly, including the transcriber, external coder, and members of the Research Ethics Committee. For those that may partake in the focus group discussion, the researcher will make every effort to ensure that you will not be connected to the information you share during the discussion; I cannot guarantee that other participants in the focus group will treat the information confidentially. I shall, however, encourage all participants to do so. For this reason, I advise you not to disclose sensitive personal information in the semi-structure interviews. Kindly note that you are free to opt out of the study at any point if not convenient.

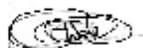
HOW WILL THE INFORMATION BE STORED AND ULTIMATELY DESTROYED?

The researcher will store hard copies of your answers for a period of five years in a locked cupboard for future research or academic purposes, after which they may be destroyed; electronic information will be stored on a password-protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable.

WILL THERE BE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

Participation in this study is completely voluntary, and there will be no remuneration or incentives connected to participating in the study.

Yours sincerely,



Olukoya Adewale Olotu

APPENDIX I: SURVEY QUESTIONNAIRE WITH ADOLESCENTS

QUESTIONNAIRE WITH ADOLESCENTS



Dear Respondent,

This questionnaire is for research purposes and is meant to seek information on how to enhance the learning environment of cyberbullied adolescents in a rural ecology. It has four sections, with 16 items covering background information, adolescents and cyberbullying, rural environment and enabling learning environment. We hereby solicit your support and truthfulness; all information provided shall be treated confidentially. Thanks for your cooperation.
Please, kindly tick as appropriate.

Questionnaire- Cyberbullying Inventory (CBI)

Please, kindly tick as appropriate.

Part 1: Background Information

1. What is your gender?

- Male
- Female

2. Identify your age group

- 10-12
- 13-15
- 16-18
- 18+

3. Indicate your class: Junior Secondary School (JSS); Senior Secondary SSS (SSS)

- JSS1
- JSS2
- JSS3
- SSS1
- SSS2
- SSS3

Part 2: Adolescents & Cyberbullying

1. Have you heard about cyberbullying?

- Yes
- No

2. Cyberbullying is an intentional intimidation

- Yes
- No

3. Cyberbullying constitutes an act of oppression

- Yes
- No

4. Cyberbullying is committed via electronic medium such as text messages, email, online chat rooms or social networking sites

- Yes
- No

5. Do you browse or chat on social media platforms?

- Yes
- No

6. If yes, how many hours do you spend daily?

- Never
- 2hr-4hr
- 4hr-8hr
- 9hr +

7. Which of the following social media platforms do you use?

- Facebook
- Twitter
- YouTube
- Myspace
- Instagram
- All
- None

8. Have you ever had any negative experience with anyone online?

- Yes
- No
- Prefer not to say

9. Have you experienced online bullying?

- Yes
- No
- Prefer not to say

10. Do you know anyone who has been bullied online?

- Yes
- No
- Prefer not to say

Part 3: Rural Environment

1. Rural ecology is a socially marginalised community?
 - Yes
 - No
2. Do you have access to the internet in your area?
 - Yes
 - No
3. Have you heard of cyberbullying in your school?
 - Yes
 - No
4. Are there any reported cases of cyberbullying in your community?
 - Yes
 - No
5. Do you know anyone who has been bullied in your school?
 - Yes
 - No

Part 4: Enabling Learning Environment: Tick as applies

What do you understand as an enabling learning environment?

- A space of positive interaction between a learner and the environment
- A place of acceptance for all learners
- Where learners' potentials can be enhanced
- A friendly environment for teaching and learning
- None of the above

THANK YOU FOR YOUR TIME AND PARTICIPATION

APPENDIX J: PHOTOVOICE INTERACTION WITH ADOLESCENTS

PHOTOVOICE WITH 10 ADOLESCENTS



OUTLINE

1. Welcoming of Participants
2. Ground Rules
 - (a) Mutual respects
 - (b) Freedom of expression- no interruption when a participant is speaking.
 - (c) Anonymity and confidentiality
3. Reflection on key concepts:
 - Cyberbullying
 - Enabling Learning Environment
 - Rural Ecology
 - Adolescence
4. Participants Training –
 - (a) What is Photo Voice?
 - (b) Examples of photo voice activities
 - (c) Usage of camera
 - (d) Improvising with Phones
5. Activities – Taking of photos
6. Group Reflection/Discussion – Deliberations on photos taken
7. Reflections – Individual reflections

ACTIVITIES:

Action: Take a photo or two that best represents the prompts/concepts provided below. Thereafter, write a caption/narrative telling your story and the meaning of the object(s).

NB: Participants' sincere responses to the prompts would be appreciated.

RESEARCH QUESTION 1: What do adolescents in a rural environment understand as cyberbullying?

Take a photo or two that best depicts cyberbullying in your environment.

RESEARCH QUESTION 2: Which factors contribute to adolescents' cyberbullying in a rural environment?

Take a photo or two that best represents the causes of cyberbullying in a rural environment.

RESEARCH QUESTION 3: How do adolescents perceive an enabling learning environment?

Take a photo or two that best represents what you perceive as an enabling learning environment.

RESEARCH QUESTION 4: What are the threats to enabling the learning environment of cyberbullied adolescents?

Take a photo or two that best signifies threats to an enabling learning environment.

RESEARCH QUESTION 5: How can we enhance the learning environment of cyberbullied adolescents in a rural environment?

Take a photo or two that indicates how a learning environment can be enhanced.

Thanks for your time and participation!

APPENDIX K: SURVEY QUESTIONNAIRE WITH ADOLESCENTS

FOCUS GROUP DISCUSSION WITH 10 ADOLESCENTS



Preliminaries

The purpose of this activity is to have a focus group discussion with 10 adolescents in two selected rural secondary schools of Ekiti State Nigeria. The estimated time for the discussion is 1 hour 30 minutes.

OUTLINE

1. Welcoming of Participants
2. Ground Rules
 - (a) Mutual respects
 - (b) Freedom of expression- no interruption when a participant is speaking.
 - (c) Anonymity and confidentiality
3. Discussion / Deliberations
 - (a) **OBJECTIVE 1: What is your understanding of the following concepts?**
 - Cyberbullying
 - Enabling Learning Environment
 - Rural Environment
 - Adolescence

FOCUS GROUP DISCUSSION WITH 10 ADOLESCENTS



Preliminaries

The purpose of this activity is to have a focus group discussion with 10 adolescents in two selected rural secondary schools of Ekiti State Nigeria. The estimated time for the discussion is 1 hour 30 minutes.

OUTLINE

1. Welcoming of Participants
2. Ground Rules
 - (a) Mutual respects
 - (b) Freedom of expression- no interruption when a participant is speaking.
 - (c) Anonymity and confidentiality
3. Discussion / Deliberations
 - (a) **OBJECTIVE 1: What is your understanding of the following concepts?**
 - Cyberbullying
 - Enabling Learning Environment
 - Rural Environment
 - Adolescence

APPENDIX L: SEMI-STRUCTURED INTERVIEW WITH PARENTS, PRINCIPLES, COUNSELLORS & TEACHERS

SEMI-STRUCTURED INTERVIEW WITH PARENTS, PRINCIPALS, COUNSELLORS & TEACHERS

Preliminaries

The purpose of this activity is to have a semi-structured interview with 8 participants (adults) within the rural learning community of Ekiti State, Nigeria. These participants are also direct stakeholders, and they include 2 parents, 2 principals, 2 counsellors, and 2 teachers. The estimated time for the discussion is 1 hour 30 minutes.

OUTLINE

1. Welcoming of Participants
2. Ground Rules
 - (a) Mutual respects
 - (b) Freedom of expression- no interruption when a participant is speaking.
 - (c) Anonymity and confidentiality
3. Discussion / Deliberations
4. Summarizing

RESEARCH QUESTION 1: What is your understanding of the following concepts?

- Cyberbullying
- Enabling Learning Environment
- Rural Ecology
- Adolescence

RESEARCH QUESTION 2: What are the factors that contribute to cyberbullying in a rural community?

- What are the causes of cyberbullying within your learning environment?
- How do these factors affect your learning environment?
- What other factors promote cyberbullying within your community?

RESEARCH QUESTION 3: How do adolescents perceive an enabling learning environment?

- What's enabling learning environment?
- What is your understanding of an enabling learning environment?
- What are the characteristics of an enabling learning environment?

RESEARCH QUESTION 4: What are the threats to enabling learning environment?

- What are the risks to enabling learning environment?
- In what ways do these risks hinder your learning environment?
- Give a detailed explanation with examples

RESEARCH QUESTION 5: How can we improve the learning environment of cyberbullied adolescents?

- What could be done to improve the learning environments of cyberbullied adolescents?
- What do you think needs to be done to enhance the learning environment of cyberbullied adolescents?
- What else can you suggest?

Thank you for your time and participation!

APPENDIX M: ABBREVIATED CURRICULUM VITAE



Abbreviated *Curriculum vitae*

BIOGRAPHICAL SKETCH

PERSONAL AND CURRENT EMPLOYMENT INFORMATION			
Name	OLUKOYA ADEWALE	Surname	OLOTU
Title	MR.	Nationality	NIGERIAN
Department/Division	Guidance & Counselling Department, Faculty of Education, Ekiti State University, Ado-Ekiti, Nigeria.	Position	Lecturer II NOV 2012- FEB 2019
Email address	waglow@gmail.com	Web address	https://scholar.google.com/citations?user=26pDmGYAAAAJ&hl=en
SHORT OVERVIEW OF RESEARCH AND SCIENTIFIC BACKGROUND/EXPERIENCE/TRAINING (Where, in terms of research, have you come from, in what are you interested, and where are you now?)			
I am interested in adolescents' development and their learning environment. At the moment, I am working on two manuscripts ready for publication. Previously, I published six academic articles between 2013-2018 in reputable journals, supervised 12 Honours students' research dissertations, attended and presented papers at local and international conferences.			

RECENT EMPLOYMENT HISTORY

Employer	Position	Period
University of the Free State	Research Assistant	FEB 2021- JUNE 2022.
University of the Free State	Teaching Assistant	FEB-DEC 2020
University of the Free State	Student Assistant	MAR -OCT 2019

HIGHEST ACADEMIC QUALIFICATION(S)

Degree	Field of study	Higher education institution	Year received
M.Ed.	Guidance & Counselling	University of Lagos, Nigeria	2015
B.Ed. Honours	Guidance & Counselling	University of Ado-Ekiti	2006

POST GRADUATE SUPERVISION

Degree	Current number of students	Completed number of students
PhD	-	-
Masters	-	-
Other (specify) Honours	12	12

MEMBERSHIPS TO PROFESSIONAL COUNCILS AND/OR REGISTRATIONS

Tick where applicable	NAME OF COUNCIL / TYPE OF REGISTRATION	PERIOD OF REGISTRATION	MEMBERSHIP/ REGISTRATION NUMBER
	Teacher Registration Council of Nigeria (TRCN)	2009- To date	
	Counselling Association of Nigeria (CASSON)	2016- till date	
	Association of Professional Counsellors in Nigeria (APROCON)	2017- till date	

RESEARCH PUBLICATION OUTPUTS

FULL REFERENCES OF PREVIOUSLY PUBLISHED PEER-REVIEWED ARTICLES

1. Odu, B.K, Falana, B.A, & Olotu, O.A. (2014). Prevalence of Violent Sexual Assault on Southwest Nigeria Girls. *European Scientific Journal*. 10 (7):471- 481(United Kingdom)
2. Odu, B.K., Alokan, F.B., Ibimiluyi, F.O., Ireto -Oscar, O.B., Olotu, O.A. (2015). Influence of Gender and Age on Behavioural Problems and Experience of Child Abuse among Secondary School Students. *British Journal of Education*. 3(10): 22-34(United Kingdom)
3. Ayodele, C.S., Olotu, O.A. & Aina, J.O. (2015). Behavioural Disorder among Secondary School Students in Ado-Ekiti Local Government Area of Ekiti State. *European Journal of Psychological Research* 2(2):60-65 (United Kingdom)
4. Olawole A. & Olotu, O.A. (2018). Learning Style, Time- Management and Academic Achievement of Secondary School Students in Lagos Metropolis. *Journal of Counselling and Applied Psychology*, 4 (2):24-29. (Nigeria)
5. Olotu, O.A. (2018). Incidence of Truancy among Public and Private Secondary School Students in Ekiti State, Nigeria. *Journal of Professional Counsellors in Nigeria*. 1(1):191-197. (Nigeria)

AWARDS

- Leadership award, Housing and Residence Affairs, 2022

The University of the Free State,

- Leadership award, University of the Free State, 2021

Unit for Institutional Change and Social Justice, Department of Student Affairs, Housing and Residence Affairs

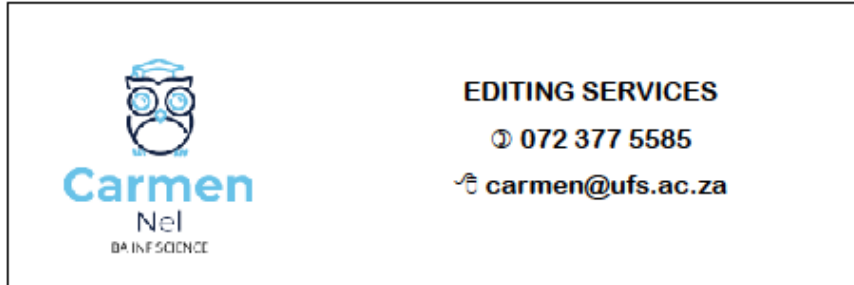
- Best Teaching Assistant, *Centre for Teaching and Learning*, 2020

The University of the Free State

- Best PhD Student, in 3 Minutes Thesis, Faculty of Education, 2020

The University of the Free State

APPENDIX N: LETTER FROM LANGUAGE EDITOR



CERTIFICATE OF LANGUAGE EDITING

This certifies that I have edited the work detailed below for language and styling.

Title:

"A STRATEGY TO ENHANCE ENABLING LEARNING ENVIRONMENT FOR
CYBERBULLIED ADOLESCENTS IN A RURAL ECOLOGY"

by

OLUKOYA ADEWALE OLOTU

STUDENT NUMBER 2017492915

Regards

Carmen Nel

14 December 2023

Professional editing of articles, thesis, dissertations and books

APPENDIX O: TURN IT IN REPORT

A STRATEGY TO ENHANCE ENABLING LEARNING ENVIRONMENT FOR CYBERBULLIED ADOLESCENTS IN A RURAL ECOLOGY

ORIGINALITY REPORT

8%	7%	2%	3%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

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2	repository.up.ac.za Internet Source	<1%
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31	Francis Wardle. "Collaboration With Families and Communities, Second Edition", Zovio Inc, 2021 Publication	<1 %

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33	www.theseus.fi Internet Source	<1 %
34	careersdocbox.com Internet Source	<1 %
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36	Submitted to Adtalem Global Education Student Paper	<1 %
37	Clark, Tom, Foster, Liam, Sloan, Luke. "Bryman's Social Research Methods 6E XE", Bryman's Social Research Methods 6E XE, 2022 Publication	<1 %
38	etd.uwc.ac.za Internet Source	<1 %
39	Michael Jackson. "Chapter 1048 Machiavellian Intelligence Hypothesis", Springer Science and Business Media LLC, 2012 Publication	<1 %
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47	Ndakaitei Chikonzo, Asta Rau, Jan K. Coetzee, Anne Ryen, Florian Elliker, Amanda Young-Hauser. "A Shock to the System: HIV among Older African Women in Zimbabwe", <i>Qualitative Sociology Review</i> , 2019 Publication	<1 %
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APPENDIX P: PHOTOVOICE TRANSCRIPT EXCERPTS

Group Reflection

Reflection/Discussion

Researcher: Considering these photos, please, what do you see here? what's happening here?

Participant-8: These photos (Figures 14 & 15) represent a conducive learning environment. It is a learning environment where students settle down and learn without distractions. It is a quiet place where there is no noise or interruption.

Participant 2: These are examples (Figures 14 & 15) of a good and well-planned learning environment. As we can see from these photos of the school library, It has textbooks, tables, ceiling fans, and fitted asbestos unlike our classrooms, which lack the resources.

Researcher: You meant your classes are not as equipped as the school library?

Participants: Yes! [in affirmation]

Participant: I wish our classes are equipped like the school library.

Researcher: Wow! Do you wish your classrooms are equipped as the school library?

Participant: Yes

Participant 5 (Heritage) : In our classrooms, most times in the afternoon when lectures are going on, we can hardly concentrate because the class is hot, and there is no asbestos to prevent the heat from the sun.

Researcher: Hmm

Researcher: Do we all agree that the photos here are examples of enabling learning environment?

Commented [AO48]: Enabling learning environment - a conducive learning environment

Commented [AO49R48]: An enabling learning environment is a quiet place, a place void of distraction and interruptions

Commented [AO50]: Enabling learning environment

Commented [AO51]: Well equipped classrooms

Commented [AO52]: Unconducive learning environment

Commented [AO53]: Threats to enabling learning environment

Participant 3 (Precious):

We do have class captains for each classroom and prefects that represent the school management; however, they hardly report. In most cases, they don't report when they see their friends using or operating phones in the classrooms.

Researcher: So, in some instances, the class captains and school prefects don't report students operating phones in the classrooms?

Participants: Yes, [Participants affirmation]

Participants 1 (Clement): They don't, especially if the students are their friends

Researcher: Wow! That's something to investigate, non-reporting cases

Researcher: Guys, something just came to mind, remember, cyberbullying is not limited to the classrooms or school environments. It can happen anywhere, even within cyberspace at home. Hence, if we may ask, has anyone experienced bullying at home?

Participant 4 (Treasure): [raises her hand] Sometimes my friends sent me nasty messages when I was at home.

Participant 2 (Smiling A): sometimes, some of our classmates post insulting messages to our group while we are at home.

Researcher: Wow! In these instances, did you guys report or inform your parents or guardians of your experience?

Participant 2 (Smiling A): [Shook his head, NO] I didn't see it necessary because it's something that happens frequently. Evidence of cyberbullying activities at home.

Commented [AO41]: Non-reporting of phone abuse / cyberbullying activities in class

Commented [AO42]: Non-reporting cases of cyber activities

Commented [AO43]: Evidence of cyberbullying at home

Commented [AO44]: Future research: parents not paying enough attention to cyberbullying