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THE OUTCOME OF SOCIETY'S INFLUENCE ON PERSONS WHO ARE FORCED TO
SWITCH THEIR LEFT HANDEDNESS

BY

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INTEGRI PROCEDAMUS

DECLARATION

I **AKORFA AMA AKOTO** hereby declare that this submission is my own work and that it contains no material previously published for an award of any degree in this university or any other university. All references made to other studies have been duly acknowledged.

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Signature: 

Date: 07-12-2022



DEDICATION

I wish to dedicate this work to all left-handed persons facing biases in a right-hand biased society.



ACKNOWLEDGEMENT

I am eternally grateful to the almighty God for blessing me with the gift of life and good health to successfully complete this programme.

I appreciate my supervisor, Dr. Stephen Afranie for all his guidance and supervisory inputs that has shaped my work.

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Finally, to everyone whose support has brought me this far, thank you!



ABSTRACT

The purpose of this study is to understand the outcome of society's influence on natural left handers who are forced to switch to use their right hand in performing activities by exploring these three objectives; to identify the various methods teachers use to force left-handed children to use their right hand; to identify challenges left-handed children encounter in schools in Ghana; and finally to assess the effects of switching from a left-handed to a right-handed person on the life of the person. The study adopted the mixed-methods approach to answer the objectives of the study. Persons who were born natural left handers but forced to switch to use their right hand were purposively sampled and in-depth interviews were conducted to collect extensive data from them. Questionnaires were also distributed to collect data from teachers. The findings further identified the methods teachers in the selected school use to enforce this switch, which include; punishing, caning and verbally abusing natural left-handers. The discomfort of sharing dual desks by a natural lefthander and a right-hander was identified as one of the challenges left-handers encounter in schools. Additionally, the findings revealed that forcefully making natural lefthanders to switch to become right-handed has effects on victims. Some of the identified effects on persons include poor handwriting; nail biting, anger, frustration, poor concentration in class, and timidity. In solving and reducing the prevalence of the phenomenon and its effects, this study recommends that education policies must include training and providing teachers with methods to make the classroom inclusive and conducive for all students including minority groups such as left-handed children; government must do more to supervise schools to implement existing policies that ensure safer classrooms for minority groups; guidance and counselling professionals must be deployed to

primary and Junior High Schools to listen and provide support for left handed children who encounter verbal and physical abuse to switch their hand dominance. In addition, there must be increased education of the public including parents on the importance of allowing persons born left handed to use their more dominant hand to perform activities.

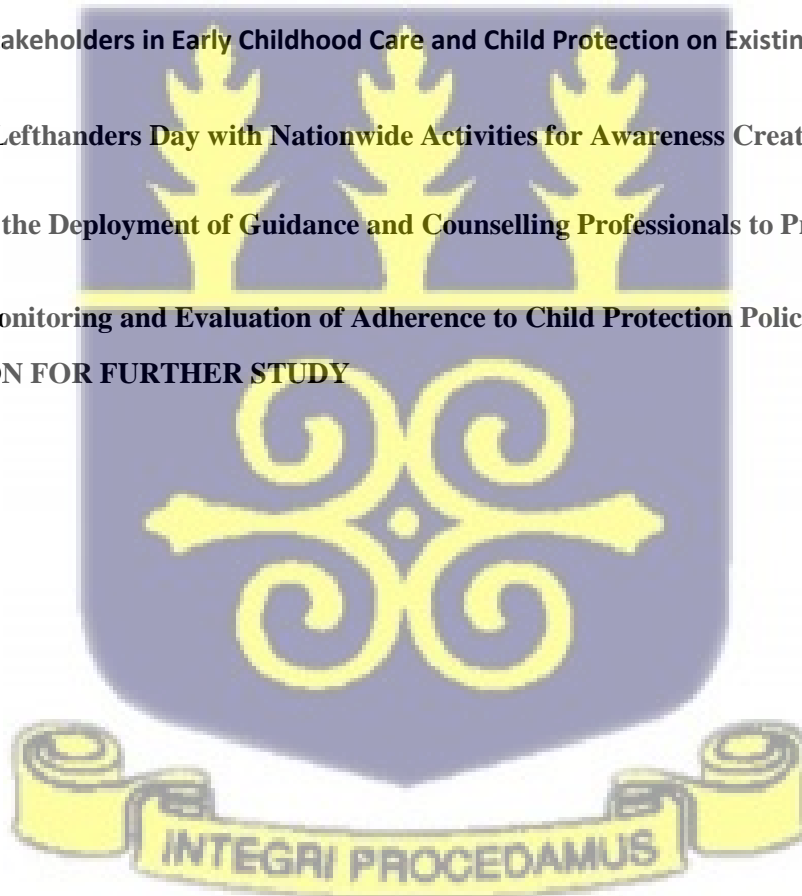


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CSO	Civil Society Organisation
ICT	Information Communication Technology
MGCSP	The Ministry of Gender, Children, and Social Protection
NGO	Non-Governmental Organisation
SPSS	Statistical Package for Social Science
UNICEF	United Nations International Children's Emergency Fund



CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

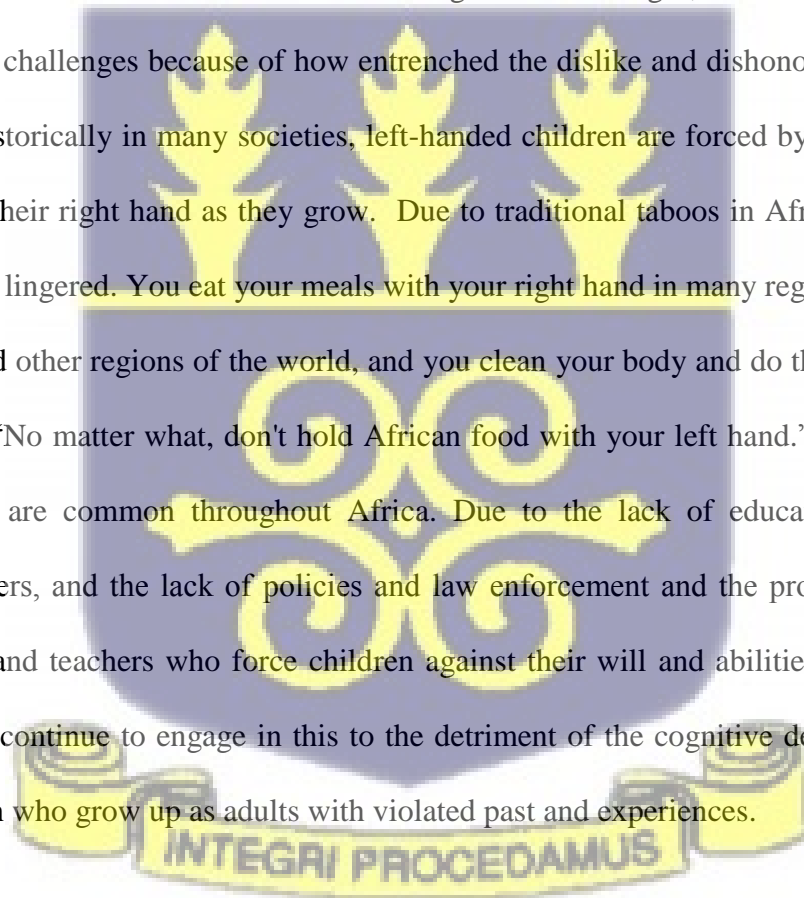
Imagine yourself as a primary school child, seeing all your classmates use their right hand to write while you use your left hand. You see almost everyone is more confident in using their right hand, but you are only able to use your left hand, it feels more comfortable. Your teachers and parents tell you the use of the left hand does not show respect, instead, you should use your right hand. The society in which you are being nurtured, views the use of the left-hand as a taboo. Ten percent of the population, encounter this everyday because they are left-handed (Coates, 1996). Researchers from various disciplines have studied handedness. There have also been recent studies on the impact of handedness on children's cognitive development (Jonhston, Nicholls, Shah, and Shields 2009). It is important to note that, culturally, many languages have words of unfavorable connotations for being left-handed because of the word 'left's negative connotations. The term meaning 'left' in Latin, which is a basis language for many European languages, is sinister. In Spanish, the word 'left' denotes 'cruel' (Coates, 1996). The word 'left' in French denotes sloppy, awkward, and gauche. The word "left" in German also signifies "inconvenient." The Italian word mancino implies "left," "deceitful," or "defective" (Coates, 1996; Trotter, 1974). The Russian word nolevo implies "left" or "sneaky" (Trotter, 1974). Each of these negative implications contributes to a social climate in which being left-handed is stigmatized. People who are left-handed can't read what they've just typed because their hand is covering it because writing is done from left to right. Many left-handed people compensate by keeping their arms in a hooked position, which is troublesome since the arm lacks full range of motion (Hackney, 1997). Being left-handed means that you are more comfortable with doing things with your left hand, such as reaching, throwing,

pointing, and catching. Handedness can be seen early in a person's life. Left-handed means clipped, faulty, equivocal, doubtful, questionable, ill-omened, inauspicious, and illegitimate, according to the Oxford English Dictionary. Eating, giving, receiving, and even pointing with one's left finger are all considered disrespectful and unpleasant in many cultures. Left-handed children endure name calling, discrimination and pressure to use their right hand. Psychological challenges can be considerable for some children, in addition to feelings of guilt, awkwardness, and inadequacy are among them (Bloodsworth, 1993; Coates, 1996; Milsom, 1995). Thompson and Harris (1978) projected that left-handed people are more likely than right-handed people to identify themselves and others by their handedness. They also assert that the social experiences of those who are lefthanded are different. McGuire and McGuire (1980) tested the spontaneous response to the sentence *Tell us about yourself* using college students and public school children. The outcome indicated that left-handed individuals included their hand dominance in the description of themselves. This is an important issue because any emotional or physical influence on an adult resulting from their childhood experience of being pressured by parents, teachers or guardians to use their right hand can help explain past, current and future educational deficiencies. Finally, a number of adults in Ghana live with the experience of being denied the choice to use their dominant left-hand in writing, coloring, drawing, cooking and other daily activities because the use of the left-hand is seen as a taboo or sign of disrespect. Handedness researchers have studied the use of the right and left hand in various cultures, the age of dominance, psychological differences between right and left-handed children. Many researchers have studied left-handedness and stigmatization and the immediate outcome of the abuse left-handed persons suffer during early childhood. However, there is no research in Ghana to identify the outcomes of the pressures left-handed persons endure. This research seeks to identify and understand the outcomes of society's influence

on adults who were forced to abandon their left-handedness during their childhood stage. The outcome of this research seeks to provide necessary research details and information to inform policy orientation towards inclusive early childhood education policies that protect and support the holistic development of left-handed children in Ghana.

1.2 Problem statement

Left-handed children around the world experience feelings of shame, oddity, name-calling, inadequacy, insecurity, and pressure to use their right hand. There have been a few interventions to prevent left-handed children from encountering such challenges, but left-handed children continue to face challenges because of how entrenched the dislike and dishonor for the left hand is in culture. Historically in many societies, left-handed children are forced by their parents and teachers to use their right hand as they grow. Due to traditional taboos in Africa, the stigma of 'dirty' lefties has lingered. You eat your meals with your right hand in many regions in Africa, the Middle East, and other regions of the world, and you clean your body and do the dirty parts with your left hand. “No matter what, don't hold African food with your left hand.” Such beliefs and social practices are common throughout Africa. Due to the lack of education among early childhood teachers, and the lack of policies and law enforcement and the protection of child's rights, parents, and teachers who force children against their will and abilities to use their less dominant hand, continue to engage in this to the detriment of the cognitive development of the violated children who grow up as adults with violated past and experiences.



Harburg, Roeper, Ozgoren, and Feldstein (1981) examined replies to a questionnaire provided by study participants using data from the Tecumseh Community Health Study. Right-handed

respondents said they were less emotional than left-handed respondents, according to the findings. According to a newspaper report in a Ghanaian newspaper, The Chronicle (October 12th, 1998), a cab driver was wrongly treated because he signaled with his left hand to an air force officer, an ‘offense’ which was translated as an insult to the air force office, hence, resulted in physical assault from the officer to the cab driver. It is clear that society has exerted some influence on the nurturing, growth and development of left-handed children and these influences have had a significant outcome on these children as they mature into adults. There have been subtle advocacies against society’s pressure on left-handed children in using their right hand. To support and amplify these ongoing advocacies, this study seeks to identify the outcomes of such societal influences on adults who were forced to abandon their left-handedness to use their right hand.

1.3 Objectives of the Study

The main objective for the study was to understand how teachers and parents’ actions to force lefthanded children to switch to the use of their right hands affect the functioning of the victims

1.3.1 Specific Objectives of the study

1. To identify the various methods teachers use to force left-handed children to use their right hand.
2. To identify challenges left-handed children encounter in schools in Ghana.
3. To assess the effects of switching from left-handedness to right-handedness on the life of the person.

1.4 Research Questions

The following questions guided the study.

1. What methods do teachers use to force left-handed children to use their right hand?
2. What challenges do left-handed children encounter in schools in Ghana?
3. What effects do forceful switching from left-handedness to right-handedness have on the life of the person?

1.5 Significance of the Study

In Ghana, there is limited research on the effects of forcefully changing the hand dominance of children because handedness is not a talked about topic. Also, a majority of Ghanaians downplay the long-term influences on the adults who experience forceful switch of hand dominance from their teachers and parents during their early childhood education. The study will be useful in providing an understanding of how left-handed children describe and see themselves and the role teachers are playing in this regard. Firstly, this study will spark a series of local and global conversations, dialogues and discussions concerning society's view and treatment of left-handed children and adults. This study will also be a reference leading to agenda setting and policy making that will influence early childhood education to protect left-handed children from enduring pressure to use their right hand. In addition, the study will provide a good understanding of how left-handed and right-handed children see themselves which will help teachers in various decision-making regarding children and their handedness. Finally, this research will contribute to the existing literature on handedness.

1.6 Scope and Limitation of the Study

The scope of the study is limited to **the outcome of society's influence on persons who are forced to switch their left-handedness among students and teachers of the Pentecost Preparatory School, Madina** within the 2022 academic year.

The study had two other limitations. First, the study was conducted in only one out of the about 18,000 primary and Junior High Schools in the country. Primary data was gathered in only one school limiting empirical generalization of the study findings.

Secondly, the time frame allowed for the study was brief and did not make it possible for large data collection and analysis. The time allotted for the research was limited due to the time constraints of conducting interviews via recording and transcription. However, these did not affect the outcome of the study as issues raised are of relevance and applicable for a theoretical and empirical generalization.

1.7 Organization of the Study

This thesis is divided into five chapters. Chapter One, which is the introduction, covers the background to the study, statement of the problem, research aim and objectives, research questions, significance of the study, scope and limitation of the study and organisation of the thesis. Chapter Two captures the theoretical and conceptual review as well as the empirical review. Chapter three centers on the methodology. Specifically, it focuses on, profile of the study area, design of research, target population, sampling techniques and procedures, data collecting instrument, instrument validity, data collection techniques, data processing and analysis, and ethical issues.

The results and discussion of the findings are detailed in Chapter Four. The Summary, Key

Findings, Conclusions, Recommendations, and Suggested Areas for Further Research are all included in Chapter Five.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses the literature of the study under the conceptual, theoretical and empirical reviews and conceptual framework. Literature on left-handedness is limited, however, different topics on the phenomenon have been studied by various researchers. This study first reviews literature on the history of left-handedness. There is some research on left-handedness and stigmatization in Africa and difficulties faced by persons whose hand dominance is the left-hand. Difficulties faced by left-handed persons are reviewed, with focus on persons in Africa. Many hand dominance researchers have debated the age of hand dominance and have concluded that there is no fixed age at which children achieve hand dominance.

2.2 Theoretical Review

Several explanations have been proposed to explain the results of switching from left to right handedness. For this study, three theories are used to explain the outcome of changing from lefthandedness to right-handedness and these are: labelling theory, Hertz's theory of handedness, and the theory of socialization.

2.2.1 Labelling Theory

Sociologist George Herbert Mead posited that labeling theory acknowledges that labels are used to categorize people. When a person is given a label, they are regarded as such, which can have a significant impact on and provoke subsequent conduct. Left-handed people have been stigmatized in the past and in other cultures. However, regardless of talent or ability, left-handed athletes may be classified as more skillful or attractive in sports. Many people believe that left-handed people are unconventional, inventive, or artistically gifted. The labeling theory states that an individual

becomes what others have labeled him or her as. As a result, when presented with a societal judgment, the left-hander confirms his or her identity as a left-hander, with everything it entails, resulting in a self-fulfilling prophesy.

2.2.2 Hertz's Theory of Handedness

Robert Hertz should be the starting point for any sociological research of left-handedness. Emile Durkheim and Marcel Mauss' colleague, Hertz wrote an essay titled "The Pre-Eminence of the Right Hand: A Study in Religious Polarity" (1909). Hertz wrote:

Right-handedness is not simply accepted, submitted to, as if it were a natural necessity: it is an ideal to which everyone must aspire, and which society enforces through positive punishments.... Being left-handed is a social fault that invites derision and a less-than-explicit social punishment.... As a result, the value and function of the two sides of our body are incompatible which has all of the features of a social institution. (Translated by Needham, 1973, p. 6).

Hertz came to the conclusion that the higher importance placed on right-handedness was due to all societies' intrinsic dualism or polarity. The left and right were as much a part of the collective conscience as the holy and profane in religion (trans. in Needham 1973).

2.2.3 Theory of Socialization

The concept of socialization is emphasized in another branch of sociology. Socialization, according to Landis (1989), is the "process of learning the expectations, habits, skills, attitudes, beliefs, and other prerequisites essential for effective involvement in social organizations." (441).

We depend on role models during this process. Although left-handed people account for 10% to

15% of the population, over 84 percent of left-handed people have two right-handed parents, and just a small percentage of left-handed people have one left-handed parent (Ponte 1988). The use of our hands is extremely important to us as humans. As a result, left-handed children are socialized without having left-handed role models. This is especially obvious when children begin school and their left-handedness clashes with a world that is predominantly right-handed. The educational system, as well as the desks, scissors, and penmanship, are all designed for the right-handed. Not only are there few role models, but the majority of book illustrations show right-handed children. Children are taught to emulate their teachers, however this needs a reversal or mirror version of the performed behavior for the left-handed child. For left-handed people, the socialization process may be different and more difficult. They must learn a lot of things on their own and adapt in ways that right-handed people are never expected to do. As a result, left-handed people may become outliers or even nonconformists in society. People who are forced to fend for themselves may become resourceful, leading to either positive or negative behavior extremes (e.g. intellectually gifted contributors to society or antisocial criminals). Successful criminals must be adept at adapting to new situations. As previously stated, a disproportionate number of left-handed delinquents and criminals have been detected, but a disproportionate number of left-handed MENSA members have also been uncovered. Joan of Arc, H.G. Wells, and George Burns were all left-handed, as were Jack the Ripper and Charles Manson. George Bush, Bill Clinton, and Ross Perot, the three main presidential candidates in the United States in 1992, were all left-handed.

2.3 Conceptual and Empirical Review

2.3.1 The Concept of Left-handedness

The word left in English comes from the Anglo-Saxon word left, which means weak or broken. In many African cultures, the use of the left-hand is associated with misfortune, inferiority and bad

luck. Across the world, and particularly in Africa, stigma against the use of the left-hand has resulted in using many unpleasant activities to socialize children who possess a left-hand dominance to forcefully shift to the use of their right hand. In enstooling chiefs in some African cultures, candidates for the chieftaincy role could be disqualified if it is found that such a person's hand dominance is the left-hand.

Many cultures have celebrated and accepted left-handedness and celebrated left-handedness, as such as there are notable such as Ronald Reagan, Alexander the Great, Julius Caesar, Leonardo Da Vinci, Albert Einstein, Bill Gates, Warren Buffett, Henry Ford, John Rockefeller, Bill Clinton, Oprah Winfrey, Lady Gaga, Prince William, Angelina Jolie and Barack Obama. Against the happenings in certain African tribes where chieftaincy candidates are disqualified based on lefthandedness, six out of seven former presidents of the United States have been left-handed. Singapore Prime Minister, Lee Hsien is also a left-handed writer. In Africa, Kenya's Uhuru Kenyata , Tanzania's former Foreign Minister, Bernard Bembe , as well as Nigerian's Namadi Sambo, Kashim Shettima, Babatunde Fashola, Oluwarotimi Akeredolu. Liberia's Vice-President are all left-handed.

The usage of the left hand is frowned upon in Ghana. Because school was the first place where the concept of left-handed versus right-handed was introduced, left-handed persons were viewed as rebelling against authority if they used their left hand (Bloodsworth, 1993).

Text Box 1: A Foreigner's Newspaper Question on Left-handedness in Ghana

In a research by Essegbey and Kita (2001), they found an illustration from a newspaper where using the left hand in Ghana was seen as a taboo. In the newspaper, the article titled "Why Not the

Left hand”, a foreigner who recently moved to Ghana raised a question about the left hand. “Why Not the Left Hand” (*Weekly Spectator*, 5th-11th Feb. 2000 issue).

It read:

Dear Nana Abrewa, ...I have however noticed that Ghanaians are very much displeased with the use of the left hand....—Monica XXX

Dear Monica, It is a fundamental part of our culture not to either shake hands, give an item or point by the left hand...

The left-hand taboo is portrayed in this article through this question posed by a foreigner.

In answering the question, Nana Abrewa mentioned the phrase, “a fundamental part of our culture”, which confirms the left-hand taboo is a part of Ghanaian cultural identity.

Text Box 2: A Cultural Clash on Left-handedness

A second article in a Ghanaian newspaper illustrated the importance of the taboo of pointing with the left-hand in the Ghanaian culture. The weekly publication, *The Sun* (18th-24th November, 1996), published a letter from a popular actress from Ghana in the section, “A letter to Maame”. She narrated a cross-cultural clash that occurred during the shooting of a movie in London between one Ghanaian film director and an English director of photography. The story happened when the Ghanaian characters were acting in a film. Although the movie had Ghanaian characters, the director of the movie was the only Ghanaian. The challenge occurred during the shoot of one particular scene where “the little girl Ama sees Sister Mabel on a horse back in the bush, Sister

Mabel points at an object further off with her right hand.” (The actress played Sister Mabel) The English man who was the director of photography was not pleased as the actress did not act according to what he prescribed in the script. According to the English director, looking at the positions of the actors, the actress, Sister Mabel, should be pointing with her left hand. To resolve the misunderstanding, it became necessary for the Ghanaian director together with the actress to teach the crew some lessons on Ghanaian culture. The letter continued after the description of this experience. The letter read, “In Ghana, making gestures or pointing at objects with the left hand is considered highly provocative and culturally disrespectful. Foreign oriented Ghanaians use the left hand with no ill intentions. But then, care must be taken when one is in the midst of culturally oriented Ghanaians or Africans. Such a person sooner finds his/her actions unacceptable, especially when seen on our screens”. According to the letter, there may be some individual differences in the gesture prohibition.

While Malusi et al. (2019) found that left-handers experience a decrease in physical and emotional health, Fisher (2006) identified in her study that left-handers are not negatively affected by the feelings of being different. Although these studies researched on different aspects on lefthandedness, many of these researches focused on the European region, whose culture towards lefthanded children is slightly distinct from the African culture. In addition, studies on left-handedness in Ghana, by (Kita and Essegbey, 2001) focused on how viewing the use of the left-hand as a taboo in Ghana influenced the use of gestures in Ghana. There is not much study in Ghana to understand the effects on persons who are forced to abandon their left-handedness to use their right hand. This study seeks to fill that gap.

2.3.2 Challenges Left-handed Persons Encounter in Schools

(Malusi et al., 2019) found that the modifications left-handed people must make in school and at work in order to operate comfortably often result in hand, back, neck, and shoulder difficulties, which not only reduces their effectiveness but also jeopardizes their physical and emotional wellbeing. According to Coates (1996), hunters in prehistoric times needed to protect their most essential organs, such as their hearts. As a result, they held a shield in their left hand and a sword or knife in their right. As a result, the right hand became more agile, and this trait was handed down through the generations. A child who has not identified his or her hand dominance and often swaps hands when writing can easily experience an impact in their hand writing. At this stage when a dominant hand is not yet determined, children might write alphabets sloping in opposite directions. Also word and letter formation may be incorrect. The children may also be faced with the challenge of alphabet identification which may result in confusing letters such as ‘d’/ ‘b’ or ‘p’/‘q’. Children are also faced with the challenge of incorrectly reading numbers such as ‘12’ as ‘21’ or spelling ‘taught3’ instead of ‘taught’. Many household and school tools such as scissors, chair desks, computer keyboards, and others are designed and crafted to be right-handed. Using these tools to perform tasks may pose some challenges to left-handed persons.

In his study, Milson (1995) indicated that, if a left-handed writer is using a pen, the pen’s nub is pushed instead of being pulled across the paper in the manner it was crafted to perform. This situation may result in erratic ink flow which would allow the writing to be easily smeared. When left-handed persons are forced to write in the socio-culturally acceptable manner, it goes against the natural instincts of how individuals move away from the midline of their body which is from right to left. As a result, children whose hand dominance is their left, experience more stress when they get involved in long periods of writing (Harrison 1981). Left-handed children experience

challenges very early in their childhood. Household items such as toys and clothing are designed with a right-hand bias. Milson (1995) identifies that a part of children's childhood is to explore and identify pragmatic means of making things work for them. This raises concerns to identify the coping mechanisms left-handed children adapt and their effects when they are forced to get comfortable using their right-hand. Left-handed children are not only burdened with abusive nicknames, but they also become subjects of mockery as they adhere to use their most dominant hand. Many children's first experience with hand dominance and preference is at a school, with teachers guiding them as to which hand to use. Children whose hand preference is their left-hand have trouble with school equipment. School equipment like the one desks are usually designed for the use of right-handed students. These writing difficulties may lead to psychological challenges for such persons (Fisher 2006).

Studies from a number of hand researchers have identified that children begin to identify their hand preference at age four, and then at age six, they clearly identify which hand they prefer. Handedness is both genetic and environmental, with 25 percent being genetic and 75 percent environmental, cultural and societal pressures. Ocklenburg (2019). However, because children tend to go to school very early nowadays, hand preference seems to be determined a bit earlier because children would have to engage in many desk top and writing activities earlier than before. During this early childhood education period, some children often swap hand when their pencil gets to the midline of their body since they are still struggling to determine their hand dominance. In this instance, children who have not yet clearly determined their handedness experience difficulties in engaging in writing and desktop activities, not to add the pressure to use a particular hand. Springer and Deutsch (1999) identified that 95 percent of right-handed individuals determine the vital areas of verbal language in their left hemisphere, 5 percent in their right hemisphere. In

addition, 70 percent left-handers process major aspects of verbal language in their left hemisphere, 15 percent in the right and 15 percent left and right. As a result, it is clear that we do not know which hemisphere a specific child processes language. Therefore, it not advisable to force a child to change their dominant hand since we cannot tell what the outcome will be on language, reading and writing. According to Trotter (1974) Left handedness is linked to warlike instincts in the Bible's Book of Judges. According to Bloodsworth (1993), in their first four years, children rotate between their right and left hands. According to Bloodsworth, around 60% of early education learners have inconsistencies in hand dominance. When left-handed persons are forced to write in the socio-culturally acceptable manner, it goes against the natural instincts of how individuals move away from their body's midline which is from right to left. As a result, children whose hand dominance is their left, experience more stress when they get involved in long periods of writing (Harrison 1981).

Left-handed children experience challenges very early in their childhood. Household items such as toys and clothing are designed with a right-hand bias. Milson (1995) identifies that, a part of children's childhood is to explore and identify pragmatic ways of making things work for them. This raises concerns to identify the coping mechanisms left-handed children adapt and their effects when they are forced to get comfortable using their right-hand. Left-handed children are not only burdened with abusive nicknames, but they also become subjects of mockery as they adhere to use their most dominant hand. According to Milson (1995), the majority of left-handed children may feel awkward about the challenges they encounter and rather blame themselves instead of the household or school equipment they are using. This explains why some children change or shift to use their less dominant hand in order to align with socially accepted norms. Teaching left-handed children was first acknowledged in 1915, according to Bloodsworth (1993). The author of the

study argued that left-handed persons were disregarded and given inadequate guidance, and that if both left-handed and right-handed children's learning capacities were equal, it would be difficult for left-handed children to overcome the bad training and succeed. Furthermore, because most teaching methods are biasedly intended for right-handed learners, early childhood educators are not provided formal training on acceptable training approaches to give left-handed children (Harrison, 1981; Milson, 1995). It is worthy to note that teachers are not the only persons guilty of trying to force left-handed children to use their right-hand but parents also do this. According to Kee et al. (1987) and Tan (1985), consistency in hand dominance during infancy and the preschool years is crucial for intellectual development and helps predict language asymmetries; children who can establish this are more coordinated than those who establish their hand preference later or never. Children who couldn't tell which hand was their dominant one had poor motor skills (Tan, 1985).

This raises questions regarding previous studies that suggested that hand dominance does not occur until about the age of ten. Fisher (2006) found that thoughts of being different have no detrimental impact on left-handed students; in fact, left-handed students have a greater self-concept than righthanded students.

Children whose parents were less educated were more likely to be compelled to change handedness, according to Ling-fu. Furthermore, the rate of handedness conversion was lower in younger children than in older children. Many handedness researchers have made comparisons between Left-handed people's growth and abilities. Banham (1983) found that left-handed children developed speech and language abilities at a slower rate than right-handed children. Left-handed children, on the other hand, were able to catch up to right-handed children's growth and verbal development with the right instructions. Bower (1985) found that children with exceptional

Lefthanded people are more likely to be gifted in verbal or mathematical abilities, however, mixed-sided children have more difficulties reading, according to DeYoung et al. (1998). Lewis and colleagues (1986) discovered that gifted left-handed and right-handed people had similar motor, language, pre-reading, and quantitative ability. However, there are significant disparities between the left- and right-handed groups in language, memory, spatial, and motor ability, with the righthanded group performing better. Tan (1985) could not discover any material to corroborate the findings of older studies that stated that left-handed children had poor coordination and that righthanded children had superior motor skills and capacities. From his findings, Tan concluded that it is possible that left-handed persons were examined as less skillful because their manner of action and performance seemed different from the accepted norm of the right-handed majority. In their study on elementary students' intellectual ability, motivation, academic accomplishment, and socioeconomic status are all factors to consider. Hardyck, Petrinovich, and Goldman (1976) discovered no differences in handedness and further recommended left-handed groups as the ideal group for researching cerebral organization. According to (Hicks & Beveridge 1978), studying college students discovered differences in fluid intelligence between left-handed and right-handed students seen as inferior. Another study by Hardyck (1977) discovered that left-handed children can be at both the upper end of ability and the lower end of ability. Further research by Orme (1970) concluded that handedness was not linked to intellectual ability. In other findings, Bemporad (1986) discovered that left-handed individuals were the least performing group with regards to all academic tests while mixed-handed groups were among the highest performing group. However, Bemporad clarified that, even though left-handed persons recorded lower academic performance, the comparisons were not statistically significant.

2.3.3 Methods Used By Teachers to Force Left-Handed Children to Use Their Right Hand

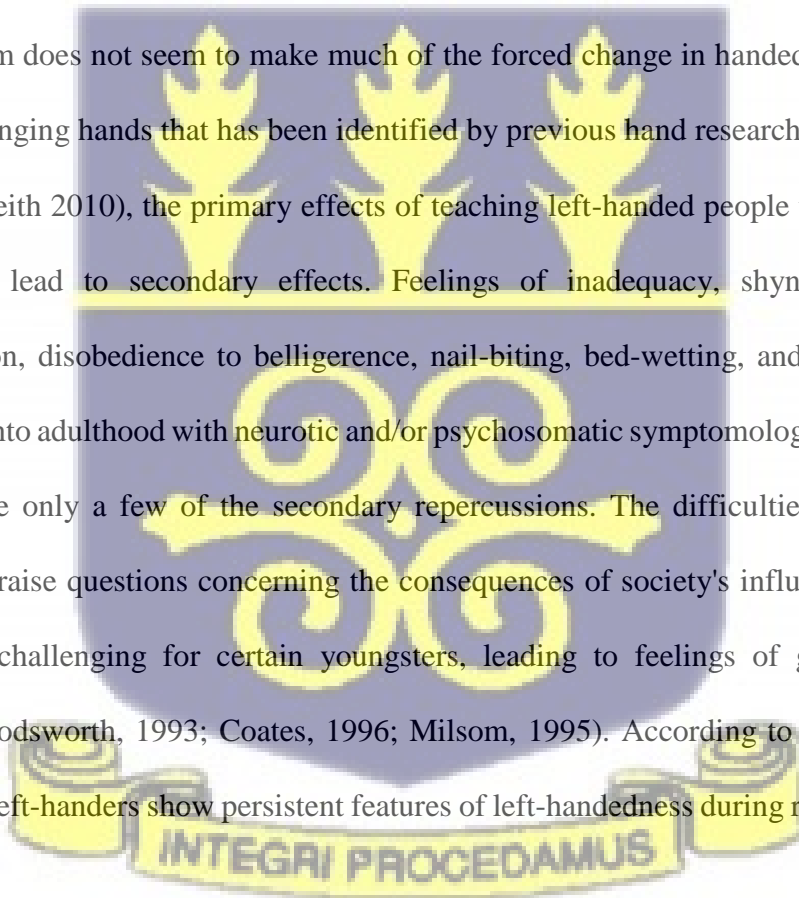
In former times, it was reported that teachers rapped the knuckles of children who attempted to use their left-hand to perform writing or any other desktop activities. These teachers tied the left arm of the child, behind the child's back in order for the right hand to remain the only usable hand (Milson 1995). Respect for adults is highly esteemed in African tribes and left-handed children who attempted resisting change were seen as rebellious and disrespectful to authority since the

The concept of left-handed versus right-handed was first introduced in schools (Bloodsworth, 1993). As a result, left-handed children experienced emotions of inadequacy and abnormality as a result of these interventions (Bloodsworth, 1993; Coates, 1996; Milson, 1995). In a comment on an article on switching from left-hand to write with the right hand, Mike (2021) wrote: "I couldn't switch voluntarily. I kept using the other hand. So they kept tying down my right hand with a thick rope to the desk every day. When I look back at that I just think what a bunch of morons." In a study, (Keith 2010) identified how parents of a left-handed person tied her left hand to the chair and forced her to eat with the right hand. Other means identified in switching from left hand to right hand included scolding and slapping. In an online survey conducted by (Keith 2010), some of the methods teachers and parents used in forcing left-handed persons to use their right hand include flogging, punishing students who used their left-hand to write, slapping fingers of lefthanders with a ruler, tying the left-hand behind their back, and removing the pencil from their lefthand to their right hand as many times as teachers found the students use it.

2.3.4 Negative Effects of Switching From Left Hand to Right Hand

In many cultures, children whose dominant hand is the left-hand are faced with the unpleasant experience of switching to use their less dominant hand. In many African societies, the use of the left-hand for handshakes is rejected, receiving an item with the left-hand is seen as impolite and

even though, eating with the hand is the norm in Africa, it is restricted to only the use of the righthand. The effects of the force parents and teachers use to make children with left-hand preference switch to right-hand preference are numerous. Nail biting, shyness, and isolation are some of the effects of people who were forced to change their writing hand as youngsters. Other effects include lousy handwriting, low memory, poor concentration, spelling problems, reading difficulties, stuttering, bedwetting, and physical exhaustion (Keith 2010). In the film called “The King's Speech” about UK Monarch George VI (King from 1936 to 1952 and father of Queen Elizabeth II), starring Colin Firth and Helena Bonham Carter. The King was a natural left-hander but was forced to write with his right and grew up as a nervous child with a pronounced stammer. Although the film does not seem to make much of the forced change in handedness, stuttering is one effect of changing hands that has been identified by previous hand researchers (Keith 2010). According to (Keith 2010), the primary effects of teaching left-handed people to write with their right hand can lead to secondary effects. Feelings of inadequacy, shyness, introversion, overcompensation, disobedience to belligerence, nail-biting, bed-wetting, and emotional issues that can endure into adulthood with neurotic and/or psychosomatic symptomology; and personality abnormalities are only a few of the secondary repercussions. The difficulties that left-handed people confront raise questions concerning the consequences of society's influence. Adapting to change can be challenging for certain youngsters, leading to feelings of guilt, oddity, and inadequacy (Bloodsworth, 1993; Coates, 1996; Milsom, 1995). According to Neurosci. (2002), adult converted left-handers show persistent features of left-handedness during right-hand writing.



Left-handed children developed speech and language abilities at a slower rate than right-handed children, according to Banham (1983), but with the correct instruction, left-handed children might

eventually catch up to right-handed children in linguistic development. Bower (1985) discovered that children with superior verbal or mathematical abilities were more likely to be left-handed. Mixed-sided children have more difficulties reading, according to DeYoung et al. (1998). For example, Lewis et al. (1986) discovered that gifted left- and right-handed adults performed equally well in motor, vocabulary, pre-reading, and quantitative skills. However, differences in language, memory, spatial, and motor skills were discovered when typical left- and right-handed groups were compared, with the right-handed group outperforming the left-handed group. Tan (1985) found no evidence to back up claims made by instructors and found in older literature that left-handed children are less coordinated and have lower motor ability than right-handed youngsters. Tan speculated that left-handed people may be judged as less skilled simply because their actions differ from those of the right-handed majority. Hardyck (1977) found that left-handed children are just as likely to be at the top of an ability distribution as they are at the bottom. Orme (1970) discovered that handedness has nothing to do with intellectual aptitude. The left-handed individuals in Bemporad's (1986) dissertation were the least performing group on all academic achievement assessments, whereas the mixed left-handed group was one of the highest performing groups. Despite the fact that the left-handed group performed poorly on the vast majority of cognitive assessments (including verbal and spatial), Bemporad explains that there was no statistical significance in any of the comparisons. Jakobsen (1983) investigated whether handedness has an impact on personality in terms of locus of control and ambiguity tolerance. A total of 102 graduate students from statistics, research, psychology, and speech pathology classes were enrolled in the study, with nine of them being left-handed. According to the study, there were no significant variations in the means of any of the handedness groups. The minimal number of left-handed respondents, according to Jakobsen, may have influenced the statistical analyses' precision. Hicks

and Pellegrini (1978b) used an adult sample to find that both left- and right-handed people scored significantly higher than mixed-handed people on locus of control constructs in terms of being more externally controlled.

2.4 Conclusion of the Chapter

Although literature on handedness is limited, many researchers who study hand preference have concluded that hand dominance is both genetic and environmental. In addition, researchers in Europe have identified flogging, punishment, and tying the left-hand to a chair as some methods parents and teachers use when forcing left-handed persons to switch to use their right hand. Additionally, some literature has identified difficulties in spelling, bed-wetting, inferiority and nail biting as some effects persons who are forced to switch from using their left-hand to their right suffer. Although there have been studies on various aspects of handedness, there is not much study in Ghana to understand the effect persons who are forced to switch their left-handedness to use their right hand. The literature has enabled me to reach the current stage of the study.



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In research, methodology is important since it outlines the researcher's strategy to ensuring the validity of the study's conclusions. According to Silverman (2005), methodology involves the choices made about cases to study, methods used for gathering data and data analysis process. These methods can be in the form of quantitative techniques or qualitative techniques based on the research problems. This chapter presents and explains the methods and procedures used to conduct the research. It highlights the research design of the study, target population and sampling techniques. The chapter also explains the sources of data collection including analytical tools and techniques of data analysis and presentation.

3.2 Data Sources and Data Types

The study incorporated both primary and available sources of information. Primary data is typically defined as information acquired from a source that has not been analyzed before being used in the current investigation. The study team collects primary data directly from the target population through field activities (Marshall, 2005). The most popular ways of acquiring primary data are face-to-face interviews or discussions with members of the target group, but phone interviews, radio communication, email exchange, and direct observation can be employed. Secondary sources of information are information gathered by researchers who are not involved in the current study and has been subjected to at least one layer of analysis before being included in it (ACAPS, 2012). Available sources of information or literature includes research that has been published, internet resources, media reports, and data that has been cleansed, processed, and

collected for a purpose other than the current study, such as academic research or agency or sector-specific monitoring reports. In regards to this study, the primary data was collected from respondents. In addition, other available sources of information from published and unpublished documents, internet materials, media reports, etc. were utilised in the study.

Data acquired directly by the researcher from the study subject at hand is referred to as primary data. The primary data for this study was gathered through the distribution of questionnaires and interview guides to the selected groups. The researcher was able to formulate questions that addressed the study problem by collecting primary data in reference to the theoretical framework.

Information obtained for purposes other than the conclusion of a research study is referred to as secondary data. While obtaining data on the case under investigation, the researcher had access to a range of secondary information sources. To get a better understanding of the research problem, secondary data was also used. Secondary data is classed according to whether it came from an internal or external source. Internal data, often known as in-house data, is secondary information gathered within the research company. Secondary data collected from outside sources is referred to as external secondary data. There were both external and internal sources employed. Time and money are two significant benefits of incorporating secondary data in a study. The secondary data was used to improve the study's validity and reliability. Among the available sources of data employed in this study were published journal papers, published books, and company websites, among others. The researcher saved time and money by using secondary data because all he had to do was go to the library and find and use the sources.

3.3 Research Design

The study adopted a mixed-method sequential explanatory design. In this type of study design, both quantitative and qualitative data are collected, analysed and mixed or integrated at

some point of the research process (Tashakkori & Teddlie, 2003; Creswell & Creswell, 2005). Six commonly used designs have been identified and subdivided into three concurrent and three sequential designs (Creswell, Plano Clark, Gutmann, & Hanson, 2003). Among these designs is the mixed-methods sequential explanatory design. With the mixed-methods sequential explanatory design, quantitative data collection precedes qualitative data collection (Creswell et al., 2003).

The implication is that the researcher collects and analyse quantitative data (numeric) first and then follows it up with qualitative data (text) to elaborate on the finding obtained (Tashakkori, Teddlie, & Teddlie, 1998; Creswell, 2005; Creswell et al. 2003). Whereas quantitative data gives a general understanding of the problem, qualitative at the other end of the scale offers the opportunity to explore the voices and participants' explanations behind the statistical data. Thus, the sequential explanatory design offers a robust analysis.

The strengths and weaknesses of this mixed-methods design have been widely discussed in the literature (Creswell, Goodchild, & Turner, 1996; Creswell, 2005; Moghaddam, Walker, & Harre, 2003). Its advantages include straightforwardness and opportunities for the exploration of the quantitative results in more detail. This design can be especially useful when unexpected results arise from a quantitative study (Morse, 1991). The limitations of this design are lengthy time and feasibility of resources to collect and analyse both types of data.

The quantitative approach was used to identify the methods teachers use to force natural left-handed students to switch to use their right-hand, as well as challenges left-handed children encounter in schools and effects of forcing natural left-handers to switch to become right-handers using data collected from questionnaires.

When collecting culturally relevant information regarding the beliefs, behaviors, and social circumstances of distinct people, qualitative research is highly recommended (Denzin & Lincoln, 2000). This approach was preferred because it encourages an in-depth enquiry technique of understanding a social phenomenon including the focus of this study and it also gives elaborate views and experiences of informants from their natural environment through observation, in-depth interviews and key informant interviews.

The researcher in terms of dealing with the issue of ethics submitted an introductory letter to the management of the selected school, which enabled the head to convene a short meeting to seek for teachers and the needed students' cooperation. Researcher assured respondents of their confidentiality and anonymity and therefore asked respondents to be honest in answering the questions since this is purely for academic work. The researcher alerted respondents to read carefully the instructions before answering the questions.

3.4 Research Approach

The research approach includes the strategies and philosophies that were used to obtain information for research (Arya, 2007). Therefore, in this study a mixed method approach was used to obtain the best results for a deeper understanding and analysis of the research objectives set. The study achieved this purpose with interviews and questionnaires. In an attempt to comprehend and **assess the outcome of Society's influence on persons who are forced to switch their left-handedness**, one must first gain an understanding of the methods, challenges and effects lived persons with left-handedness forced to change to right handedness experience.

This approach is commonly regarded as the third major research paradigm or strategy, as well as the third significant work or model (Johnson, Onwuegbuzie and Turner, 2007). A mixed-methods

approach was used in this investigation. The advantages of qualitative and quantitative methodologies are combined in the mixed-modal approach. The essential principle of this strategy is the commonality of a shared experience among a group of people. The major goal of this strategy is to put an end to a description of a phenomenon's nature (Creswell, 2013). Interviews are typically conducted with individuals who have direct knowledge of a topic, event, or experience. Two basic questions are addressed in the interview(s): What has your own experience been with the phenomenon? What kinds of situations or contexts have caused you to modify your mind about the phenomenon? (Source: Creswell, 2013). The quantitative method used is the survey in which a representative sample was selected from the population and questionnaires are administered to the sample for their views while the qualitative approach comprises individual in-depth interviews to stimulate in-depth information.

Through this approach, the researcher may construct the general outcome **of society's influence on persons who are forced to switch their left handedness** in order to be able to understand the phenomenon.

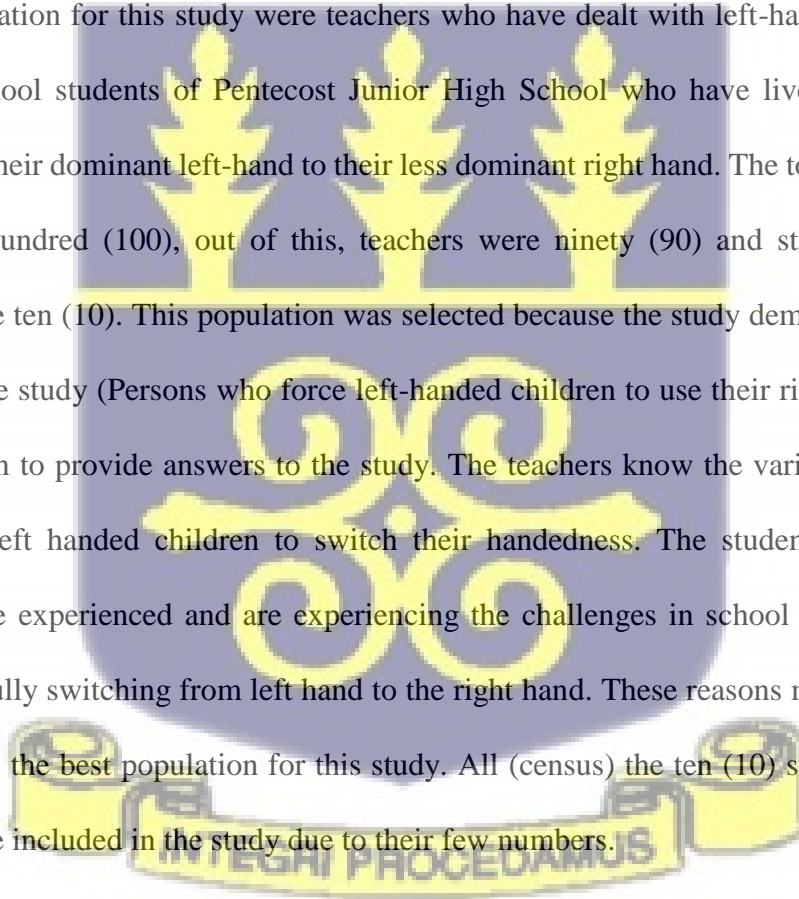
3.5 Study Area

The research was carried out at Pentecost Preparatory School, Madina. Pentecost Junior High School in Madina officially opened in 1955 with 36 students. The school started off with just one stream, but by 1967, it had expanded to two, three, and four. The Junior High School was added to the school in 1986 as part of educational reforms, with an initial enrolment of 68 students. However, some of these students, uncertain about the system's future, left for traditional secondary school's year after year, leaving only 45 students in form 3. The 'Gallant 45,' or the 45 who finished despite the odds, became known as the 'Gallant 45.' Many of them were among the first set of SSS graduates to enrol in universities. From its humble beginnings with 36 students, the school has

grown to 2,221 students with a staff of 153 people, including three administrators and 130 fulltime teachers of which the basic education department has 115 staff and the early childhood department has 15 staff and 20 non-teaching staff. The school's purpose statement is to develop highly motivated children with attitudes of excellence in diligence, honesty, and integrity, and its vision statement is to become the chosen Basic Education institution. This area was selected because it is accessible to the researcher in terms of proximity. No study with regards to my study has been conducted in the selected school.

3.6 Population

The target population for this study were teachers who have dealt with left-handed students and Junior High School students of Pentecost Junior High School who have lived experiences of switching from their dominant left-hand to their less dominant right hand. The total population for the study was hundred (100), out of this, teachers were ninety (90) and students with lived experiences were ten (10). This population was selected because the study demands stakeholders in the field of the study (Persons who force left-handed children to use their right-hand) to be in the good position to provide answers to the study. The teachers know the various methods they adopt to force left handed children to switch their handedness. The students with the lived experiences have experienced and are experiencing the challenges in school in addition to the effects of forcefully switching from left hand to the right hand. These reasons made it imperative to select them as the best population for this study. All (census) the ten (10) students with lived experiences were included in the study due to their few numbers.

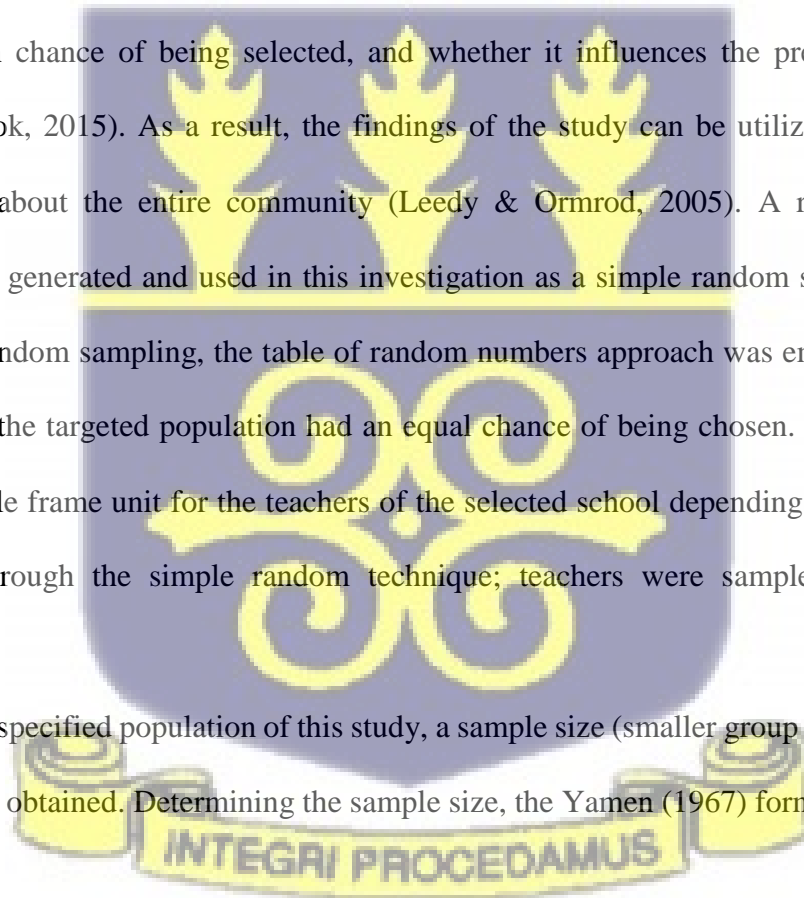


3.7 Sampling, Sampling Techniques and Sample Size Determination

Glicken (2003) and Sharma (2017) describe sampling as "the method of selecting a smaller sample of individuals to reflect essentially what a bigger population might express if every member of the larger population were asked the identical questions." The desire to make inferences about a large population from a subset of that group is a researcher's primary concern. As a result, the researcher must use sample selection processes that account for bias and data distortion to ensure that the sample truly represents the population (Leedy & Ormrod, 2005). The sample frame [individuals who have a chance of being selected among those chosen in a sample selection procedure] (Fowler, 2009) corresponds to the description of the chosen population, the sampling procedure giving each person a known chance of being selected, and whether it influences the precision of sample estimates (Adwok, 2015). As a result, the findings of the study can be utilized to make broad generalizations about the entire community (Leedy & Ormrod, 2005). A reliable list of all participants was generated and used in this investigation as a simple random sampling strategy. Under simple random sampling, the table of random numbers approach was employed to ensure that all units of the targeted population had an equal chance of being chosen. This was done by defining a sample frame unit for the teachers of the selected school depending on the number of teachers and through the simple random technique; teachers were sampled to answer the questionnaire.

Drawn from the specified population of this study, a sample size (smaller group of elements) of 90 respondents was obtained. Determining the sample size, the Yamen (1967) formula was adopted

$$n = \frac{N}{1 + Ne^2}$$



Where n = sample size,

N = population size e =

error margin,

$$n = \frac{100}{1 + 100(0.05)^2}$$

$n = 90$.

Sampling procedure is the appropriate method used in selecting a sample, Kumekpor (2002). Considering the research approach adopted in the study, probability and non-probability sampling techniques were employed. In probability sampling, each unit or element stands an equal opportunity or chance of being included in the sample. This sampling indicates that the selected sample is a true representative of the targeted population. However, non-probability sampling is a non-parametric sampling that uses non-randomized methods to determine the sample.

The study adhered to the use of a simple random technique to recruit respondents for the study. Given that the total number of teachers who have had contacts with left-handed children equalled 100, this formed the sample frame for the selection. Upon ensuring that the sample is complete, fully inclusive and up to date, a list of all participants was generated and used and this formed the sample frame for the study. With a comprehensive and accurate list in hand, numbers were assigned to each respondent in the list. Respondents were then selected randomly without replacement (lottery).

The study also adopted the purposive sampling to select key participants for the study. In total, ten key participants were selected from Pentecost Junior High School. Key participants selected to participate in the study consisted of all ten (10) students with lived experiences were included in the study due to their few numbers.

3.8 DATA COLLECTION TOOLS

3.8.1 Questionnaire

Data collection instruments are viewed as strategies for fact-finding, which may include questionnaire, interview, observation and reading (Annum, 2016). This study adopted the use of a questionnaire, and an interview guide to gather data. The questionnaire was used to gather information on the questions; what methods do teachers use to force left-handed children to use their right hand; what effects do forceful switching from left-handedness to right-handedness have on the life of the person and what challenges do left-handed children encounter in schools in Ghana? The questionnaire was designed to consist of four sections. Section A; sought to gather information on respondents' characteristics. Section B, C and D contained questions that seek to answer and tackle key issues such as the effects of forceful switching from left-handedness to right-handedness; methods employed by teachers to use to force left-handed children and the challenges left-handed children encounter in schools.

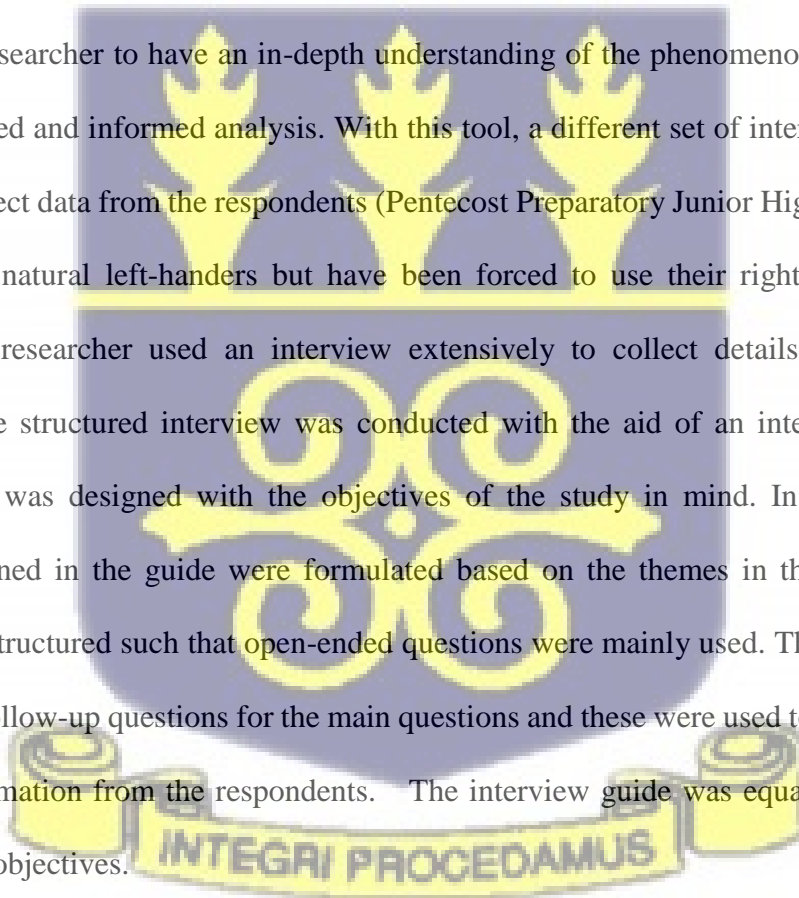
Using the quantitative method for this study, data was collected from primary sources with the use of questionnaires. The data collection method was a survey. The instrument and method for data collection are detailed below;

Questionnaire was used for data collection as one instrument for data collection for this study. This is because of its known benefits of establishing good understanding, creating a relaxed and healthy environment in which respondents easily cooperate, answer questions, and guarantees a higher level of anonymity on the part of the respondents. In addition, the survey permitted the respondents to complete them at their own convenient time and in addition offer them privacy, which guaranteed the researcher a high degree of reliability. Economic wise, it was inexpensive and less time consuming. In addition, there were also uniformity of questions, which were answered by the

respondents, and clear misunderstanding about any aspect of a study (Kumekpor, 2002 as cited in Mensah, 2010). The questionnaire was structured and comprised of close-ended questions and themed based on the demographics background of respondents and the specific objectives of the study. Questionnaires were distributed to potential respondents (teachers of the Pentecost Junior High School, Madina) for the purposes of this study and all ninety (90) responses were received. This represented a response rate of 100%.

3.8.2 Interviews

In this research, interviews are conducted to solicit information. It is one of the few effective approaches used in data collection. This is very relevant if the correct questions are asked. It allowed the researcher to have an in-depth understanding of the phenomenon under study and thus made detailed and informed analysis. With this tool, a different set of interview guides were used to help collect data from the respondents (Pentecost Preparatory Junior High School students who were born natural left-handers but have been forced to use their right hand to perform activities). The researcher used an interview extensively to collect details of the views of respondents. The structured interview was conducted with the aid of an interview guide. The interview guide was designed with the objectives of the study in mind. In other words, the questions contained in the guide were formulated based on the themes in the objectives. The questions were structured such that open-ended questions were mainly used. The interview guide also contained follow-up questions for the main questions and these were used to elicit further and supporting information from the respondents. The interview guide was equally used to gather data on the said objectives.



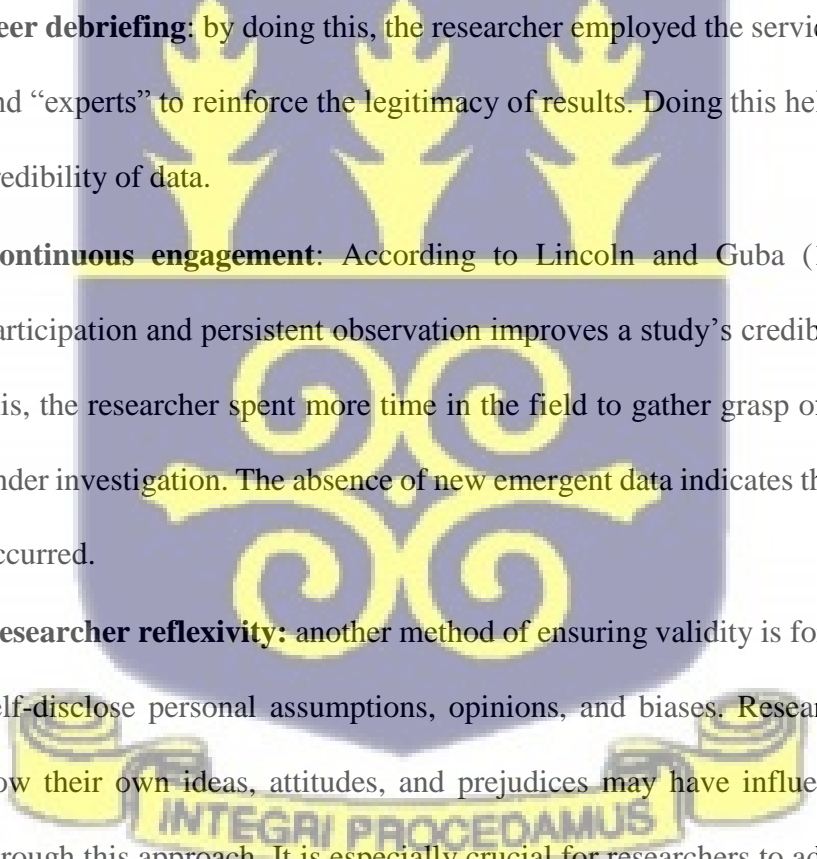
3.8.3 Data Collection Procedures

A letter of introduction was obtained from the department of study. The letter of introduction stated the aims and purpose of the study and the need for the respondents to give their consent and cooperation. This letter was sent to the head of the selected institution in order to gain access to the respondents to facilitate the study. The researcher then administered the questionnaire to the selected respondents with the help of teachers using google forms and waited for responses. The researcher conducted virtual interviews (phone call and zoom) with respondents and sought their consent for the use of a tape recorder to record the proceedings. Teachers did identification of participants and this made it easier to locate such participants. Respondents were asked to answer all interview questions with honesty with an average interview duration lasting 30 minutes. Field notebook was also used as a back up for the recorder.

3.8.4 Research Validity and Reliability

The accuracy with which the data collection methods measure what is supposed to be measured determines the validity of the results (Saunders et. al., 2009). External validity and internal validity are the two main types. To assure the study's validity, a number of actions were done. Data was gathered from both trustworthy sources and stated respondents. Cronbach's alpha was employed to test the internal consistency of the result measurements. Reliability of construct means internal consistency of measurement. In addition, internal consistency can be evaluated by Cronbach's Alpha and composite reliability (Hair, Hult, Ringle & Sarstedt, 2017). Using Cronbach's Alpha gives an estimate for the reliability depending on indicator inter-correlations. All values exceeded the proposed cut-off point of .070 according to Henseler, Ringle & Sinkovic (2009)

Qualitative research is an artistic endeavour that necessitates a sensitive and creative method to judging its worth (Tesch 1990, Sandelowski 1993), as noted by (Houghton et al., 2013). The most popular criteria used to assess the rigor of qualitative research are those established by Lincoln and Guba (1985): credibility, dependability, confirmability, and transferability. According to Lincoln and Guba (1985), credibility in qualitative study is achieved when the results match the meanings provided by the participants as nearly as feasible. According to Padgett (1998, p. 92), trustworthiness does not arise spontaneously; rather, it is the consequence of 'rigorous scholarship' that includes the application of well-defined techniques. To ensure trustworthiness of qualitative instrument used for the study, the following measures were ensured.

- 
- The logo of the University of Ghana is a watermark in the background. It features a shield with three golden flames at the top and a golden scroll at the bottom containing the Latin motto "INTEGRI PROCEDAMUS".
- **Peer debriefing:** by doing this, the researcher employed the services of colleagues and “experts” to reinforce the legitimacy of results. Doing this helped increase the credibility of data.
 - **Continuous engagement:** According to Lincoln and Guba (1985), sustained participation and persistent observation improves a study’s credibility. To achieve this, the researcher spent more time in the field to gather grasp of the phenomena under investigation. The absence of new emergent data indicates that saturation has occurred.
 - **Researcher reflexivity:** another method of ensuring validity is for investigators to self-disclose personal assumptions, opinions, and biases. Researchers reflect on how their own ideas, attitudes, and prejudices may have influenced their study through this approach. It is especially crucial for researchers to admit and disclose their initial ideas and prejudices to help people better comprehend their viewpoints, and then to bracket or suppress any personal bias as the investigation progresses.

3.9 Ethical Consideration

Ethics refers to the appropriateness of a researcher's conduct about the rights of the individuals who becomes the subject of the work or are affected by it (Saunders et al, 2009). According to Bryman and Bell (2007), voluntary participation of respondents is essential. Likewise, participants have the right to pull out from the study at any period if they wish to do so, without any form of threats or intimidations. Full consent was obtained from the participants before the study. Respondents participated based on informed consent. The principle of informed consent comprises researchers giving adequate information and guarantees to individuals about taking part in the study to allow the individuals to understand the consequences of participation and to reach a fully informed, considered and freely given decision, without the use of pressure or coercion (Sunders and Thornhill, 2012). The researcher obtained informed consent from all respondents including the teachers and children. Ethical considerations are very important for every research adventure or study. As such, the purpose of the study and the nature of the questionnaire and interview were made known to the respondents and participants. Participation in the study was solely on the basis of willingness of individuals to participate. Anonymity and confidentiality of respondents were employed in that forms of identification including names, addresses and telephone numbers of respondents were avoided to establish a high level of confidentiality. As stated earlier, the consent of teachers were sought before children were allowed to participate in the data collection process. All other ethical protocols were observed at each stage of the study.

Data Processes and Analysis

The findings from the research were presented using frequencies, percentages and tables. Data obtained from interviews was first transcribed verbatim after which it was coded using MaxQDA a qualitative tool. The Statistical Package for Social Sciences (SPSS) version 26 was

used to perform both descriptive analysis and Cronbach's Alpha to test reliability and internal consistency.

The data collected was cross checked and cleaned immediately after the end of the data collection phase to avoid mistakes in the responses. For the purpose of analysis, the responses from the questionnaire were edited, coded and entered into the version 26 of Statistical Package for Social Science (SPSS). Keywords in each question of the questionnaire were given exclusive name and number assigned to them as codes. Codes were also assigned to the response categories in the scale before data inputs. The data were screened to ensure that every information was entered accurately. The other questions that were open-ended were analysed by listing all the essential response given by the respondents. They were then considered based on their significance to the research. The analysis included descriptive statistics, frequencies, percentages, and standard deviations, mean and were presented in tables and charts accordingly to aid the interpretation of data. The data was analysed and interpreted with descriptive statistics such as mean, frequency count and percentages (Pallant, 2005). Test of reliability was also conducted to determine the internal consistency of the items in the questionnaire and data.

Following the examples of prior research (Atiso & Kammer, 2018; Jamil & Appiah-Adjei, 2019), this study employed a qualitative method of in-depth interviews to address the research questions. Babbie (2004) and Sarantakos (2005) argued that with data collected by the use of interview guides, researcher ought to be guided by an analytical procedure, which creates flexibility for qualitative studies. Similarly, Hawe, King, Noort, Jordens and Lloyd (2000) asserted that, since qualitative research is non-numeric, its analysis and findings are done in textual and narrative form. Data from the interview guide was transcribed and analysed according to themes.

Thematic analysis aids in the classification of data into relevant themes so that the many features of the study issue can be interpreted (Boyatzis, 1998; Braun & Clarke, 2008). The themes extracted from the research questions guided the analysis of the interview data. The qualitative meaning and interpretation of the topics were then investigated. To make sense of the text, these motifs were juxtaposed against the study's aims. The identities of the participants were not hidden since the issues talked about were not controversial or sensitive matters that required non-disclosures of persons involved. The consent of the respondents was sought before disclosure of their identities made as part of the analysis of data. In the process of transcribing the interview data, the researcher ensured that grammatical errors were corrected and punctuations appropriately used.

4.0 Chapter Summary

The study adopted the descriptive research design, specifically, cross sectional with the mixed approach, thus, both qualitative and quantitative research designs. The study considered questionnaires and interview guides as the data collection instruments. The study also employed the simple random sampling technique, specifically, the table of random numbers. The study had a total population of one hundred (100) and a sample size of ninety (90) for teachers of the Pentecost Junior High School, Madina. All the ten (10) respondents (students lived with experiences) from the Pentecost Junior High School, Madina were included in the study. Data collected from the interview were coded and analysed based on thematic content analysis. Data from questionnaire employed descriptive statistics, frequencies, percentages, standard deviations, mean and were presented in tables and charts accordingly through the SPSS v 25.0

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the findings and discussions from the analysis, presentation and discussion of findings of the study. The qualitative data gathered were simplified into various themes to ensure easy analysis and interpretations. In addition, the outcome for the qualitative data are presented in tables and verbatim quotations from research participants. The section covers the socio-demographic characteristics of respondents and the specific objectives. All participants interviewed were Junior High School students with lived experiences of being forced to switch from the use of the left hand to the right hand. The following were the codes for each participant: P1 (Participant 1), P2 (Participant 2), P3 (Participant 3) P4 (Participant 4), P5 (Participant 5), P6 (Participant 6), P7 (Participant 7), P8 (Participant 8), P9 (Participant 9) and to P10 (Participant 10).

4.2 Socio-Demographic Characteristics of Respondents

This section presents the background data of the respondents. The socio-demographic variables covered in this section include respondents' age, gender and educational qualification. From Table 1 below, males represent the dominant gender of the sample accounting for 72.0%, whereas females account for 28.0% of the sample. The implication is that more males are involved in the teaching profession in the Pentecost Preparatory School, Accra. The results revealed a male dominance among the teachers in the school of the study. In Ghana, more males enter tertiary institutions as compared to females (King, 1999). This confirms the findings of Fako (2019) that, more males are engaged in the teaching profession than females. On the age distribution of the respondents their ages range from 20-50 years, majority (50.0%) was between the ages of 20-30

years. Respondents found between the age brackets of 31-40 years account for 40.0%, and 10.0% for ages 41-50. Respondents were in the youth active age category, according to the findings. This backs up Kpessa-(2018) Whyte's assertion that Ghana's population is predominantly young, with youth aged 18 to 40 years old dominating the Ghanaian labour force and market.

Respondents' educational qualification were also assessed. The findings revealed that 78.0 % had obtained diploma in basic education/early childhood, 22.0% had also obtained degree in basic education/early childhood education. Individuals' horizons are broadened and their capacity to better understand and analyze issues, as well as communicate opinions for societal integrity, is enhanced through education. In that instance, a person's ability to fulfill certain functions would be limited by their level of education. According to the Ghana Education Service (2010), the least qualification for teaching at the Junior High School or Kindergarten is diploma in basic education/early childhood education.

In the case of the qualitative data, 10 students from the Junior High Secondary level were interviewed, comprising seven (7) males and three (3) females. Their ages ranged from 10 to 14.

See Table 1.0 below.

Table 1.0: Demographic Characteristics of Respondents

Variable	Description	Frequency	Percentage
Gender	Male	65	72.0
	Female	25	28.0

Age	20-30	50	50.0
	31-40	30	40.0
	41-50	10	10.0

Qualification	Diploma in Basic Education/Diploma in Early Childhood	70	78.0
	Degree in Basic Education/Diploma in Early Childhood	20	22.0
	Diploma in Basic Education/Diploma in Early Childhood	0	0.0

N= 90

Source: Field Survey, 2022

4.3: Methods used by Teachers to Force Left-Handed Children to Use their Right Hand

Research question: What are the various methods that teachers use to force left-handed children to use their right hand?

This objective was set to find the various methods teachers use to force left-handed children to use their right hand.

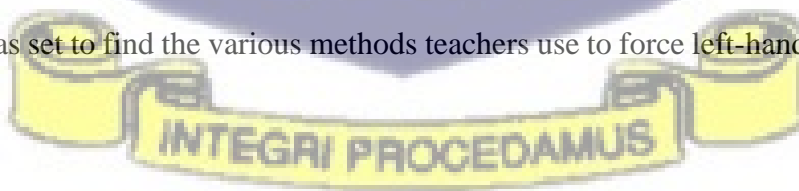


Table 2.0: Methods Teachers Use to Force Left-Handed Children to Use their Right Hand

Methods	M	SD
Tying the left-hand to the back	2.80	0.809
Making the student feel disrespectful	2.65	0.906
Beating or punishing student	2.40	0.618
Removing the pencil from the left hand to the right hand as many times seen	2.70	0.891

Note: The Mean value, Strongly Agree (SA) = 3.00-2.50, Agree (A) = 2.49-2.00, Disagree (D) = 1.99-1.50 and Strongly Disagree (SD) = 1.49-1.00. M =Mean, SD = Standard Deviation

Table 2.0 shows that the method majority of teachers use to force left-handed children switch to use their right-hand is tying the left-hand to the back (M=2.80, SD=0.809). Followed by removing the pencil from the left-hand to the right-hand as many times seen (M= 2.70, SD=0.891). Followed by making the student feel disrespectful (m=2.65, SD=0.906), followed by beating or punishing the student (M=2.40, SD=0.618).

Participants were interviewed on same objective stated above and outcomes are quoted below: The analysis of data on methods teachers use to force left-handed children to use their right hand brought out two broad themes. These were punishment and advice.

4.3.1 Types of Punishment

Punishment is one method teachers use to force natural left-handed children to use their right-hand. Some of the punishments teachers use include caning students, asking students to stand behind the class, punishing students to raise their left hands up while writing with the right-hand and even giving knocks to students on their heads. This assertion was affirmed by the survey results. Majority of the research participants mentioned punishment as one method teachers used to force them to use their right-hand. They described and mentioned the types of punishment.

The following are statements from some research participants;

The first participant noted that:

“My kindergarten teacher used various means to force me to use my right hand even though I was more comfortable with my left hand. I remember I would cry trying to grip the pencil to write with my right hand. She would beat me and punish me to stand up throughout her class whenever I tried using my left hand”. (P1)

Another participant had this to say;

“I was born left-handed but when I started learning how to write, my teachers forced me to write and try performing all other activities with my right hand. They will let me raise my left hand while they insisted I wrote with my right hand”. (P4)

Confirming the above assertion, another participant had this to say;

“My primary 1 teacher forced me to switch. She would hit my fingers with a cane.

At other times, she will cane me anytime she spotted me using my left hand”. (P5)

“Whether I was writing, receiving a gift from someone or lifting an item, my teacher forced me to use my right hand. I was punished each time I used my left hand for any of such activities. I either get knocked or asked to stand at the back of the class”. (P7)

“My teacher asked me to raise my hands whenever he caught me use my left hand to write. He gave me low marks in my classwork and assignments”. (P8)

The ninth and tenth participants added that:

“I was asked to stand up and write each time my teacher found me writing with my left hand. If she gives me an item and I receive it with my left hand, the punishment is doubled and I will stand up behind the class for long hours”. (P9)

“When I was in primary 1, my teacher forced me to write with my right hand. He will make me use the ‘My First Copy Book’, to practice writing with my right hand as punishment”. (P10)

4.3.2 Advice

The use of words of advice is another method teachers use to force left-handed children to use their right hand. This is because offering words of advice is one-way teachers’ correct unaccepted behaviour. The following are statements from some research participants; the second participant added that:

“My mother was my primary 4 teacher. My mother will not permit me to use my left hand to hold anything. She said it was against our culture. She always gave me the side eye and insisted I use my right hand only to perform all tasks. I was 7. I was not happy but I did as I was told”. (P2)

The third participant said that:

“My teachers were also forcing me to use my right hand. I remember one teacher said to me, “Why won’t you just use your right hand and be comfortable?” I started using my right hand from that day”. (P3)

The sixth participant added that:

“My teacher prevented me from writing or taking anything with my left. According to her, her students were not allowed to use their left hand in writing, giving items to people, catching or throwing a ball”. (P6)

These results mean that, there are various methods teachers use to force left-handed children to use their right hand. The study revealed that, most of the methods teachers use to influence natural left-handers to switch to become right-handed is either through punishment or words of advice. Thus, teachers apply force or pressure to influence left-handed students to switch to become right-handed. To support these findings: Milson (1995) revealed that teachers tied the left arm of the child behind the child’s back in order for the right hand to remain the only usable hand. Respect for adults is highly esteemed in African cultures and left-handed children who attempted resisting change were seen as rebellious and disrespectful to authority since the first place the idea of left-handed versus right-handed started was in schools (Bloodsworth, 1993). Consequently, such treatments made left-handed children endure feelings of inadequacy and abnormality (Bloodsworth, 1993; Coates, 1996; Milson, 1995). In an online survey conducted by (Keith 2010), some of the methods teachers and parents used in forcing left-handed persons to use their right hand include flogging, punishing students who used their left-hand to write, slapping fingers of left-

handlers with a ruler, tying the left-hand behind their back, and removing the pencil from their left-hand to their right hand as many times as teachers found the students use it.

4.4 Challenges Left-Handed Children Encounter in Schools

There are various challenges left-handed children encounter in schools. This is due to the fact that most norms, habits and equipment in schools are right-hand biased.

Research question: What are the challenges left-handed children encounter in schools in Ghana?

This objective was set to find the challenges left-handed children encounter in schools in Ghana.

Table 3.0: Challenges Left-Handed Children Encounter in Schools

Challenges	M	SD
Left-handed students:		
Difficulty when writing	2.80	0.809
Faces Stigmatization	2.65	0.906
Difficulties in identifying some numbers and alphabets	1.50	0.618
Feels worried and abandoned	2.70	0.891

Source: Field Survey, 2022

Note: The Mean value, Strongly Agree (SA) = 3.00-2.50, Agree (A) = 2.49-2.00, Disagree (D)

=1.99-1.50 and Strongly Disagree (SD) = 1.49-1.00. M =Mean, SD = Standard Deviation

Table 3.0 shows that majority (M=2.80, SD= 0.809) of respondents reported difficulty when writing as a challenge left-handed children encounter in schools. Followed by feeling worried and abandoned (M=2.70, SD= 0.891), followed by stigmatization (M=2.65, SD = 0.906), followed by difficulties in identifying some numbers and alphabets (M=1.50, SD=0.618).

Participants were interviewed on the same objective stated above and outcomes are quoted below:

The analysis of data on challenges left-handed children encounter in schools in Ghana brought out three themes. These were handwriting, Feeling worried and abandoned and difficulties in identifying numbers and alphabets.

4.4.1 Handwriting

According to the participants, left-handed students have challenges in writing which also affects their handwriting. The following are statements from some research participants;

The first participant noted that:

“It was always a struggle sitting by a right handed person. Our hands always hit each other when writing”. (P1)

The third participant said that:

“As a natural left hander, I struggled to use my right hand to write. But my teachers insisted. I was in primary 1. We had a teacher for each subject. I remember all my teachers had a problem with me using my left hand to write. I was also sharing a dual desk with a classmate. I struggled especially when we both had to use the ruler in the Math class. I also

struggled when writing because my desk mate was writing with his right hand and I was using my left hand. Our hands will often hit each other when writing”. (P3)

The fifth participant noted that:

“I struggled to write well with my right hand. My handwriting was not clear enough and my teacher complained about it”. (P5)

The seventh participant added that:

“As a natural left hander, I couldn’t have a good grip with the pen using my right hand until primary 4. My classmates were privileged to transition from using pencils to pens in primary 3. My handwriting was illegible so my teacher insisted I wait until I got it right with my right hand. I started using a pen officially later in primary 4. The waiting period was traumatic. My friends laughed at me and said I wasn’t using the pen because I wasn’t brilliant enough”. (P7)

4.4.2 Emotional Challenge

According to the participants, left handed students feel worried and abandoned. The following are statements from some research participants;

The second participant added that:

“I remember in class two (2) at the ICT lab, my classmates used to watch me use the keyboard with my left dominating. They said I was different and strange. With time, I struggled and learned to adjust to their acceptable way”. (P2)

The fourth participant revealed that:

“My classmates laughed and talked about me each time my teacher punished me for using my left hand. I disliked school for that”. (P4)

The sixth participant added that:

“I was always seen as going against the norm because I was naturally left handed. I think I was the only left handed in my class. It wasn't a good feeling. You feel left out”. (P6)

The eighth participant added that:

“My teacher said writing with my left hand was disrespectful”. (P8)

The ninth participant added that:

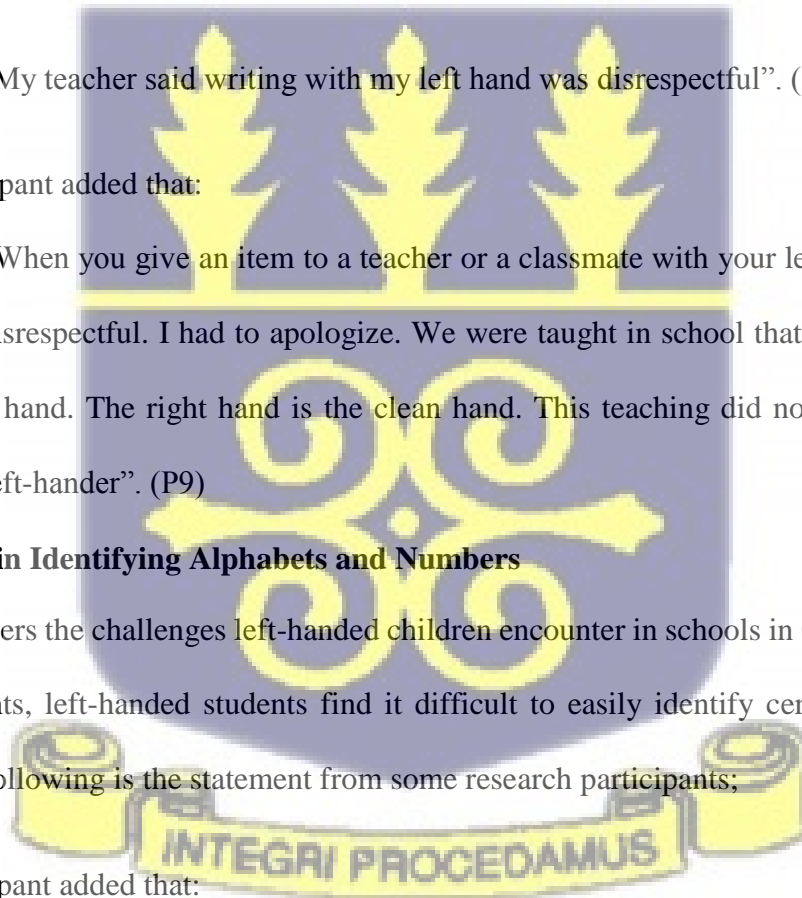
“When you give an item to a teacher or a classmate with your left hand, you were tagged disrespectful. I had to apologize. We were taught in school that the left hand was the dirty hand. The right hand is the clean hand. This teaching did not favour me as a natural left-hander”. (P9)

4.4.3 Difficulty in Identifying Alphabets and Numbers

This theme answers the challenges left-handed children encounter in schools in Ghana. According to the participants, left-handed students find it difficult to easily identify certain numbers and alphabets. The following is the statement from some research participants;

The tenth participant added that:

“My teacher said I was a slow learner because when he started forcing me to write with my right, my brain started reading some letters and words backwards”. (P10)



The study revealed that, there are some challenges associated with forcing a person to change from left to right handedness. These cases were expressed in relation to the question what are the challenges left-handed children encounter in schools in Ghana. In doing all this, one pays attention to how other writers have presented the same information to make up his or her own judgement about the genuineness of the information. These were in agreement with Milson (1995), who revealed that, at the early stage when a dominant hand is not yet determined, children might write alphabets sloping in opposite directions. In addition, word and letter formation may be incorrect. The children may also be faced with the challenge of alphabet identification which may result in confusing letters such as 'd'/'b' or 'p'/'q'. Children are also faced with the challenge of incorrectly reading numbers such as '12' as '21' or spelling 'thought' instead of 'taught'. According to (Harrison 1981), Left-handed children are not only burdened with abusive nicknames, but they also become subjects of mockery as they adhere to use their most dominant hand. Children whose hand preference is their left-hand have trouble with school equipment. School equipment like the one desks are usually designed for the use of right-handed students. These writing difficulties may lead to psychological challenges for such persons (Fisher 2006).

4.5 Effects of Changing from Left-Handedness to Right-Handedness on the Life of the Person

Research question: What are the effects of changing from left-handedness to right-handedness on the life of the person? This objective was set to find the effects of changing from left-handedness to right-handedness on the life of the person.

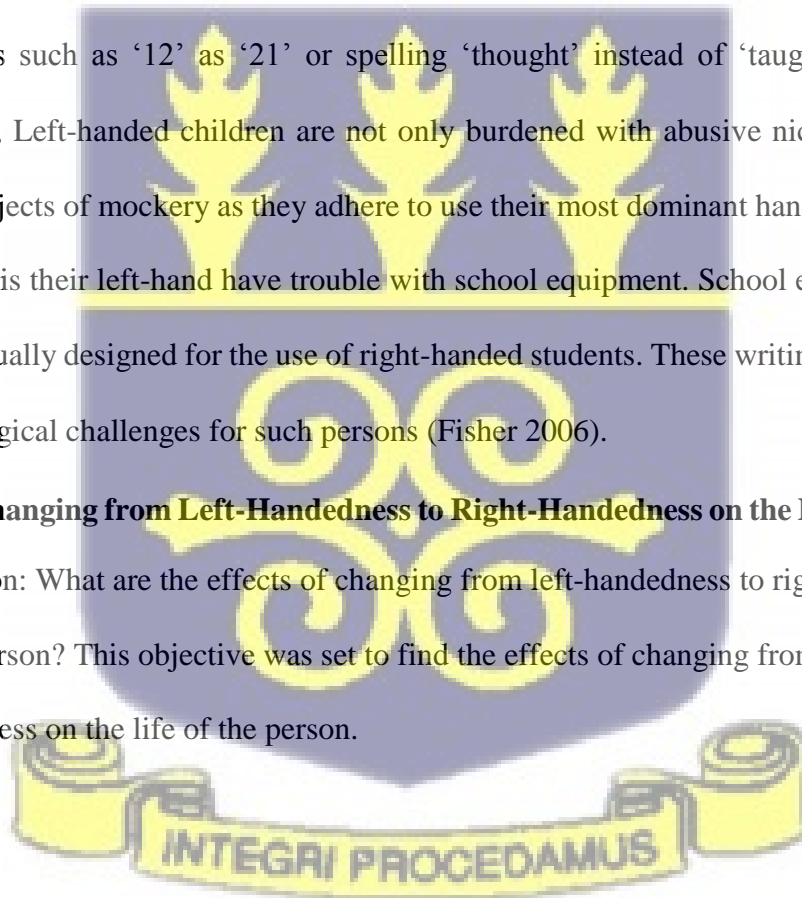
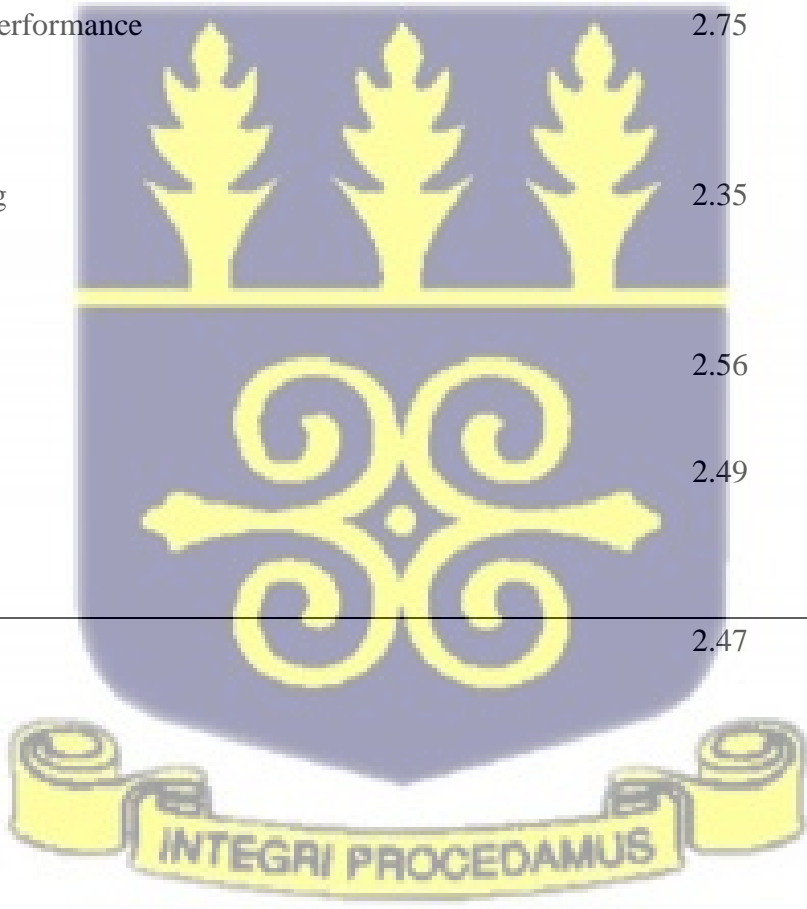


Table 4.0: Effects of Changing from Left-Handedness to Right-Handedness on the Life of the Person

Effects	M	SD
Nail biting	2.57	0.190
Poor academic performance	2.75	0.092
Poor handwriting	2.35	0.671
Feeling inferior	2.56	0.652
Shyness	2.49	0.891
Stuttering	2.47	0.745



Source: Field Survey, 2022

Note: The Mean value, Strongly Agree (SA) = 3.00-2.50, Agree (A) = 2.49-2.00, Disagree (D) = 1.99-1.50 and Strongly Disagree (SD) = 1.49-1.00. M =Mean, SD = Standard Deviation

Table 4.0 shows that poor academic performance is a more prevalent effect of forcing left-handed children to switch to become right-handed majority (M=2.75, SD= 0.092). Followed by nail biting (M=2.57, SD= 0.190). Followed by feeling inferior (M=2.56, SD=0.652), followed by shyness (M=2.49, SD=0.891). Followed by stuttering (M=2.47, SD= 0.745), followed by poor handwriting (M=2.35, SD=0.671).

Participants were interviewed on same objective stated above and outcomes are quoted below: The analysis of data on effects of changing from left-handedness to right-handedness on the life of the person brought out three themes. These were academic effects, emotional effects and physical effects.

4.5.1 Academic Performance

This theme answers the effects of changing from left-handedness to right-handedness on the life of the person. The following are statements from some research participants;

The second participant added that:

“I felt alone and different in so many activities both in school and at home. Now, I hold the knife with my left hand to cut food in the kitchen. I’m able to use my right hand to cut too. So I’m good with both hands in the kitchen. That makes me happy. But for writing, I can only write with my right hand. The change made me confused at a point. My speed in writing was reduced and my concentration in class also reduced. I used to be good at drawing in primary 1 but I haven’t been able to draw very well since I started writing with my right hand”. (P2)

The fourth participant opined that:

“Firmly holding the pencil, eraser and ruler was a struggle. After a while, I started scoring low marks in reading and comprehension. My concentration became poor. With the poor concentration, I managed to overcome it 3 years ago in my final year in high school”. (P4) The

tenth participant added that:

“My concentration in class and after school is poor. I get tired easily when working on one thing for a while. I’m unable to focus after some time in class”. (P10)

4.5.2 Emotional Effects

This theme answers effects of changing from left-handedness to right-handedness on the life of the person. The following are statements from some research participants;

The first participant noted that:

“The once outspoken girl became shy and withdrawn. It’s been over 6 years now and I’m still reading a lot of books and attending seminars to become bold and outspoken once again. Now when I see people write, throw and perform other activities with their left hand comfortably, I say to myself quietly, that could have been me”. (P1)

The fifth participant noted that:

“I’m in my JHS 3 today, but the memories make me sad each time I remember. It affected my handwriting. I became withdrawn too, maybe because of the constant caning”.

(P5)

The eighth participant added that:

“I became a frustrated and angry child. I am 12 years now and I am still that frustrated and angry child”. (P8)

The ninth participant added that:

“I was always confused. Why is my most dominant hand seen as dirty? I write with my right now but I perform other activities like throwing with my left. My handwriting is bad and now I’m confused whether I can call myself right handed or left-handed”. (P9)

4.5.3 Physical Effects

This theme answers effects of changing from left-handedness to right-handedness on the life of the person. The following is the statement from some research participants;

The third participant said that:

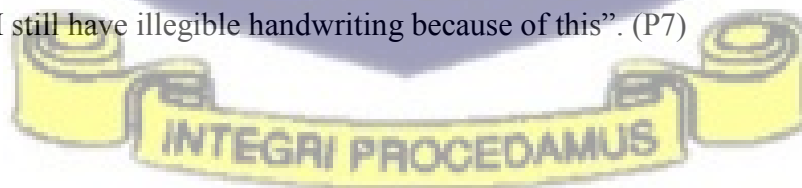
“I have poor handwriting. If I had maintained using my left hand, I wouldn’t have bad handwriting today”. (P3)

The sixth participant added that:

“I still bite my nails”. (P6)

The seventh participant added that:

“I still have illegible handwriting because of this”. (P7)



These results mean that, forcing a left handed person to become a right hand person has some effects on the life of the person. In support of these findings, according to (Keith 2010), primary

consequences of changing left-handers to write with their right hand can go on and transform into secondary consequences. Some of these secondary consequences include feelings of inferiority, shyness; introversion; overcompensation, defiance to belligerence, nail-biting, bed-wetting and emotional problems that can last into adulthood with neurotic and/or psychosomatic symptomatology; and personality disturbances. He further revealed that, some of the effects persons who have been forced to change their writing hand as children include nail biting, shyness and being withdrawn, bad handwriting, bad memory and poor concentration, problems with spelling, reading difficulties, stuttering, bed-wetting and physical tiredness. For some children, adapting to change can be difficult and bring feelings of shame, abnormality, and inadequacy (Bloodsworth, 1993; Coates, 1996; Milsom, 1995). According to Neurosci. (2002), adult converted left-handers show persistent features of left-handedness during right-hand writing.



CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter includes a summary of the study as well as the key findings. The conclusions and recommendations based on the study's findings are also included in this chapter. This chapter also includes a suggestion for further research based on the study's findings.

5.2 SUMMARY OF THE STUDY

The primary objective for this study was to **assess the outcome of society's influence on persons who are forced to switch their left-handedness**. Specifically, the study sought to:

1. Identify the various methods teachers use to force left-handed children to use their right hand.
2. Identify challenges left-handed children encounter in schools in Ghana.
3. Assess the effects of changing from left-handedness to right-handedness on the life of the person.

Although literature on handedness is limited, many researchers who study hand preference have concluded that, hand dominance is both genetic and environmental. In addition, researchers in Europe have identified flogging, punishment, and tying the left-hand to a chair as some methods parents and teachers use when forcing left-handed persons to switch to use their right hand. Additionally, some literature has identified difficulties in spelling, bed-wetting, inferiority and nail biting as some effects persons who are forced to switch from using their left-hand to their right suffer. Although there have been studies on various aspects of handedness, there is not much study in Ghana to understand the effect persons who are forced to switch their left-handedness to use their right hand. The literature has enabled me to reach the current stage of the study. The study

adopted the mixed approach, thus, both qualitative and quantitative research designs. Questionnaires and interview guides were used as the data collection instruments, and the simple random sampling technique was used. The study population of one hundred and ten (100) included a sample size of ninety (90) for respondents who are teachers and ten (10) natural left-handed students of the Pentecost Preparatory School, Madina.

5.3 KEY FINDINGS OF THE STUDY

This section explores the key findings of the study with regards to assessing the outcome of society's influence on persons who are forced to switch their left-handedness. The summary of the findings are grouped into various sections such as demographic characteristics, methods teachers use to force left-handed children to use their right, challenges left-handed children encounter in schools, and the effects of changing from left-handedness to right-handedness on the life of the person.

First of all, on the methods teachers use to force left-handed children to use their right hand, the following findings were made:

The main method teachers use to force left-handed students to use their right-hand is punishment. However, it was revealed that the teachers use different types of punishment at various times. Some of punishments used by the teachers range from raising the left-hand while writing with the right-hand, standing behind the class, tying the left-hand to the back and caning natural left-handed students who insist on using their left-hand to write. For students, the study found that, 75% out of 10 sampled students were forced to switch to use their right-hand when they were in lower primary, primary one to three. While 25% out of the 10 sampled students were forced to switch their

handedness when they were in kindergarten. The age at which children in the study started being pressured to use their right-hand ranges between 4 to 8 years. The study revealed that majority of natural left-handed students started being pressured to write with their right-hand during these age brackets.

The findings of the study revealed that left-handed children encounter a number of challenges in schools. While some of the challenges are because most of the school norms and equipment are right-hand biased, teachers inflict other challenges on students. The challenges range from; discomfort of sharing dual desks by a natural lefthander and a right hander, to stigmatization of left-handers, to left-handers feeling worried and abandoned, to left-handers using the right-hand biased computer keyboards. One reason given was that that majority, who are right-handed do not encounter these challenges, authorities seem not to be providing solutions to these challenges. On the existence of these challenges for decades, a student mentioned that they were taught each hand had a designated societal role; hence, it was inappropriate for such roles to be changed because of a few individuals (left-handed persons).

On the effects of changing from left-handedness to right-handedness on the life of the person, the findings revealed that forcefully making persons who are born left handed to switch to become right handed has a number of short-term and long-term effects. The most prevalent effect on persons is poor and illegible handwriting. This was followed by nail biting, being angry with themselves and the teachers, frustration, poor concentration in class, as well as timidity.

Finally, to address the issue of forcefully making left-handed children use their right in performing activities, the findings showed education and training of teachers against the practice. This rightly

informs the teachers to desist from the practice. An additional means of addressing the issue is to have public education and awareness creation in the community including parents, teachers and guardians, on the topic.

5.4 CONCLUSIONS OF THE STUDY

Early childhood care ensures a safe and holistic development and protection of every child.

However, children spend most of their childhood in schools, where teachers are major stakeholders in upholding safe and protective early childhood care while parents go out to work. It's worth noting that pressuring naturally left-handed children to use their right hand isn't in their best interests. The practice also not conform the Children's Act, 1998, Act (560) which states that "no person shall subject a child to torture or other cruel, inhuman or degrading treatment or punishment including any cultural practice which dehumanizes or is injurious to the physical and mental wellbeing of a child". The punishments meted out to children who insist on writing with their left hand are unjustified, as the Children's Act 1998, Act (560) states, "no correction of a child is justifiable which is unreasonable in kind or degree according to the child's age, physical and mental condition, and no correction is justifiable if the child is incapable of understanding the purpose of the correction by reason of tender age or otherwise." The study found that teachers' ignorance of children's rights motivated them to compel natural lefthanded children to use their right hand.

From the findings of this study, the following conclusions were made:

First of all, the study concludes that, punishment and words of advice are some methods teachers use to force left-handed children to use their right hand.

Also, the study concludes that, students who have been forced to change from being left-handed to become right-handed tend to have poor and illegible handwriting.

Lastly, the study concludes that, forcing students to change from being left-handed to become right-handed affects students' academic performance negatively and causes students to become timid, angry and frustrated.

Policy recommendations have been made to address the practice of forcing left-handed children to use their right. These policies include educating stakeholders in early childhood care and child protection namely teachers, parents and the general public to desist from the practice. Also, Departments, Agencies and Ministries must step up their advocacy and awareness creation against the practice. The deployment of guidance and counselling professionals to primary and Junior High Schools must also be made compulsory.

5.5 RECOMMENDATIONS FOR THE STUDY

The following recommendations were made based on the study's results and conclusions:

5.5.1 Educating Stakeholders in Early Childhood Care and Child Protection on Existing Child Protection Policies.

Firstly, teachers who are major stakeholders in child protection in school must be educated on the guiding principles of the Children's Act 1998, Act (560) and Ghana's Child and Family Welfare Policy which encourages non-discrimination against children and activities in the best interest of the child. The Government of Ghana through the Ministry of Gender, Children and Social Protection (MGCSP) must ensure that there is increased partnership and collaboration between the Social Welfare Department, Civil Society Organisations (CSOs), and Non-Governmental Organisations (NGOs) to ensure that the life of every Ghanaian child, especially those belonging to minority groups such as left handed children, is free from abuse, neglect, violence and exploitation. Early Childhood Care Givers especially teachers must ensure that no child should be discriminated against because they use their left hand to write. There must be nationwide

awareness creation on the existing Early Childhood Care and Development Policy initiated by the former Ministry of Women and Children's affairs. Creches, Day Care Centres, Nurseries, and Kindergartens who provide early childhood care must be monitored by agencies and departments under the Ministry of Gender, Children and Social Protection and the Ministry of Education.

5.5.2 Observing Lefthanders Day with Nationwide Activities for Awareness Creation and Advocacy

The Ministry of Gender, Children, and Social Protection (MGCSP) should join the international community to observe the annual celebration of International Lefthanders Day marked every 13th August worldwide. The Ministry can use the day to organise events to raise awareness on issues faced by left-handed children in homes and schools.

5.5.3 Facilitating the Deployment of Guidance and Counselling Professionals to Primary and Junior High Schools

Policy makers must ensure that the deployment of guidance and counselling professionals to primary and Junior High Schools is compulsory. The availability of guidance and counselling professionals in primary and Junior High Schools will provide counselling support for left handed children who encounter verbal and physical abuse to switch their hand dominance.

5.5.4 Intensify Monitoring and Evaluation of Adherence to Child Protection Policies

Policy makers through the Ministry of Gender, Children, and Social Protection, with support from non-state actors like the United Nations International Children's Emergency Fund (UNICEF) and Plan International Ghana must create an urgent need for monitoring and evaluation to measure the adherence to Child Protection policies including the Child and family Welfare Act of 2015.

Regular monitoring and evaluation of these institutional public and private early childhood development caregivers will help protect more left-handed children against stigmatisation and the forceful change of hand dominance.

5.6 SUGGESTION FOR FURTHER STUDY

A more comprehensive study on the same topic should be conducted on a larger sample size across different schools so that the findings can be generalised for the whole country.



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APPENDIX Appendix A: Questionnaire for Teachers

UNIVERSITY OF GHANA

CENTER FOR SOCIAL POLICY STUDIES

TITLE OF THE STUDY: THE OUTCOME OF SOCIETY'S INFLUENCE ON PERSONS WHO ARE FORCED TO SWITCH THEIR LEFT HANDEDNESS

Introduction

I am Akorfa Ama Akoto, a student of the Center for Social Policy Studies, offering a Master of Arts in Social Policy. I am carrying out this study in partial fulfillment of a Master of Arts degree.

This study looks at the outcome of society's influence on persons who are forced to switch their left-handedness.

I seek your participation in this research and any information gathered will be solely used for academic purposes. Information provided would be treated with confidentiality. Thank You.

SECTION A

Demographic Data

Instruction: (Tick [✓] the applicable option)

1. Gender

a. Male []

b. Female []

2. Age

a. 20-30 []

b. 31-40 []

c. 41-50 []



d. 51 and Above []

3. Highest Level of Education

a. Diploma in Basic Education/Diploma in Early Childhood []

b. Degree in in Basic Education/Diploma in Early Childhood []

SECTION B
VARIOUS METHODS TEACHERS USE TO FORCE LEFT-HANDED CHILDREN TO
USE THEIR RIGHT HAND

Instruction: Please tick (✓) in the appropriate column to indicate whether you strongly

disagree, disagree, agree or strongly agree.

	Methods	SD	D	A	SA
1	Tying the left-hand to the back				
2	Making the student feel disrespectful				
3	Beating or punishing student				
4	Removing the pencil from the left hand to the right hand as many times seen				



SECTION C

CHALLENGES LEFT-HANDED CHILDREN ENCOUNTER IN SCHOOLS IN GHANA

Instruction: Please tick (✓) in the appropriate column to indicate whether you strongly disagree, disagree, agree or strongly agree.

	Challenges	SD	D	A	SA
	Left-handed students:				
1	Difficulty when writing				
2	Faces stigmatization				
3	have difficulties in identifying some numbers and alphabets				
4	Feels worried and abandoned				



SECTION D

EFFECTS OF CHANGING FROM LEFT-HANDEDNESS TO RIGHT-HANDEDNESS

ON THE LIFE OF THE PERSON

Instruction: Please tick (√) in the appropriate column to indicate whether you strongly disagree, disagree, agree or strongly agree.

	Variables	SD	D	A	SA
1	Nail biting				
2	Poor academic performance				
3	Poor handwriting				
4	Feeling inferior				
5	Shyness				
6	Stuttering				



APPENDIX B: Interview Guide for Students

UNIVERSITY OF GHANA

CENTER FOR SOCIAL POLICY STUDIES

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SECTION A: Demographic Characteristics

1. Please tell me about yourself.

Probe on age, religion, ethnicity, class, kindergarten and lower primary schools attended, when you started schooling in this school.

SECTION B: Methods Teachers Use to Force Left-handed Children Use their Right-hand

1. Can you remember when you started learning how to write?

2. What methods do teachers use to force left-handed children to use their right hand?

3. Can you give an example of methods your teacher used to force you to use your right hand?

SECTION C: Challenges Left-handed Children Encounter In Schools

1. What are some of the challenges you encounter in school?
2. What are some of the specific instruments or equipment left-handed children find it difficult using in this school?
3. What efforts have your teachers made to address the challenges you encounter in school?

SECTION D: Negative Effects of Forcing Left-handed Children to Use their Right-hand

1. To what extent do you think the forceful switching from using your left-hand to your right-hand affects you?
2. Since you started writing with your right-hand, have you ever tried writing with your left-hand again?
3. What other effects did the forceful switching from using your left-hand to your right-hand have on you?

SECTION E: RECOMMENDATIONS

What measures can be taken to address or minimize forcing left-handed children to switch to use their right-hand?

What measures can be put in place to ensure left-handed children are protected in school?

