

**THE IMPACT OF MOBILE READING DEVICES ON THE READING HABITS  
OF A GROUP OF ADOLESCENT LEARNERS IN ZIMBABWE**

by

**IVAN BACHISI**

Submitted in accordance with the requirements for the degree of

**DOCTOR OF PHILOSOPHY**

in

**CURRICULUM AND INSTRUCTIONAL STUDIES**

at the

**UNIVERSITY OF SOUTH AFRICA**

**SUPERVISOR: PROF A J HUGO**

**FEBRUARY 2021**

**DECLARATION**

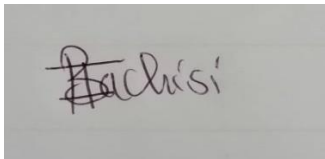
Name: Bachisi Ivan

Student number: 3456-055-6

Degree: PhD (EDUCATION)

**THE IMPACT OF MOBILE READING DEVICES ON THE READING HABITS  
OF A GROUP OF ADOLESCENT LEARNERS IN ZIMBABWE**

I declare that the above thesis is my work and that all the sources that I have used or quoted have been indicated and acknowledged using complete references.

A rectangular box containing a handwritten signature in black ink. The signature appears to be 'Bachisi' written in a cursive style.

SIGNATURE

FEBRUARY 2021

DATE: 26/02/21

## **DEDICATION**

This thesis is dedicated to:

- My beautiful wife, Tafadzwa Patience Mupeti and my children, Takundiswa Bachisi and Matifadza Bachisi.
- My beloved mother, Ms Rudo Muchemenyi, for all the words of encouragement, support and inspiration throughout my academic journey.

## **ACKNOWLEDGEMENTS**

The compilation of this thesis has been an inspiring and challenging experience. I would like to express my sincere gratitude to all the people who either contributed to the successful completion of this study:

- **God the Almighty**, for giving me life, strength, wisdom and patience to complete this thesis; you deserve all the praise and glory.
- Professor Anna Hugo, my supervisor, thank you for your professional guidance, patience, advice, encouragement and valuable suggestions during every stage of this thesis.
- To the principal, staff and learners of Forward in Faith Christian College, I appreciate your willingness, passion and interest in sharing your experiences with me.
- My wife, Tafadzwa Patience Mupeti, thank you for your patience, love, understanding and encouragement throughout this arduous journey.
- Takundiswa Bachisi and Natasha Chiriga, thank you for the help with data capturing.
- To Dr Kufakunesu Zano, for the assistance for editing and proofreading of this thesis.

## **ABSTRACT**

### **THE IMPACT OF MOBILE READING DEVICES ON THE READING HABITS OF A GROUP OF ADOLESCENT LEARNERS IN ZIMBABWE**

The pace of technological advancement and growth in the twenty-first century continues to soar at unprecedented levels and beyond human imagination. As the fourth industrial revolution unfolds, it has become increasingly difficult to predict the direction technological innovation will take in the not too distant future. Digital technologies have become an integral part of every aspect of human existence (work, play, schooling and personal relationships). The purpose of this study was to explore the various ways mobile technological gadgets like cell phones, tablets and laptops could be leveraged to promote a culture of leisure reading amongst a group of Zimbabwean adolescent learners. Data was collected using the literacy practices interview, mobile reading diaries, focus group interviews and the researcher's personal field notes. Theoretically, the study was guided primarily by Urie Bronfenbrenner's Bioecological systems theory. Also, the study was supported by Guthrie and Wigfield's reader engagement model and Turner and Hicks' connected reader model. The empirical data collected through the data collection instruments were analysed inductively. The findings revealed that adolescent learners are a digital generation whose reading needs are ever growing and expectations are ever changing. The adolescent participants expect their reading to be like the rest of their digital lives, which is quick, uninterrupted, personalised and smart. It was found that the adolescent participants like to read on their terms, as they dislike being told when to read or what to read. Three reader identities were revealed namely; the eager reader, the 'fifty-fifty' reader and the non-reader. The adolescent participants who were not already mobile readers readily accepted and adopted mobile reading as it afforded them vast reading opportunities. Besides, the findings of the study revealed that participants encountered many challenges, which in some instances militated against their mobile reading endeavours. These challenges were because of mobile phone use restrictions in schools, prohibitive data costs, a strong emphasis on academic reading as opposed to leisure reading and internet connectivity problems amongst other issues. In this study, the recommendations and guidelines outlined provide a framework with which schools, parents, mobile reading application developers and policymakers can adopt to support a robust mobile reading culture amongst Zimbabwean adolescent learners. The researcher concluded that mobile reading devices are a novel, noble and credible means through which they can foster positive leisure literacy practices amongst Zimbabwean adolescents.

Key terms: mobile reading; mobile reading device; mobile reading intervention; adolescent learners; literacy practices; Bronfenbrenner's Bioecological systems theory; engaged reader model; connected reader model; Wattpad; Worldreader.

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## LIST OF ABBREVIATIONS AND ACRONYMS

BYOD	Bring your own device
CALL	Computer-assisted language learning
CEIET	Commission of inquiry into education and training
DoE	Department of education
e-book	Electronic book
EMIS	Education management information system
e-reader	Electronic reader
ERI	Early reading intervention
ESL	English as a second language
FGD	Focus group discussion
FIF	Forward in Faith Christian College
GSMA	Global system for mobile communications association
ICTs	Information communication technologies
iOS	iPhone operating system
MALL	Mobile assisted language learning
m-comics	m-comics
M4R	Mobiles for reading
m-novel	Mobile novel
m-learning	Mobile learning
MoPSE	Ministry of primary and secondary education
m-reading	Mobile reading
MRD	Mobile reading devices
MRJ	Mobile reading journal
LPI	Literacy practices interview
RFN	Researcher's field notes
STEM	Science technology engineering and mathematics
UNECA	United nations economic commission for Africa
UNICEF	United nations children's education fund
UNESCO	United nations scientific and cultural organization
USAID	United States agency for international development
ZIMSEC	Zimbabwe schools examination council

## **CHAPTER 1: INTRODUCTION AND BACKGROUND**

### **1 Introduction**

One of the most exciting technological innovations of modern times has probably been the invention of mobile phones and handheld mobile devices also referred to as cell phones. Their portability has led to their popularity and as such the population of active mobile sim card connections at a staggering total of 8 billion subscribers globally, is testimony to how mobile handheld devices have outgrown the population of humankind (GSMA 2020:6). Whether individually or collectively owned, mobiles have significantly connected the world's people, transforming the world into one big global community. Indeed, a whole new cyber society has been created. Mobiles transcend space and time, enabling communities that were previously considered being unreachable, to access information communication technologies and be digitally included, untangling the digital divide between people (GSMA 2015:30; Rugara 2013:37).

Originally intended to be used primarily as oral communication devices, mobile device use has also extended to support many other non-core functions that promote the development of literacy skills like reading and writing text and multimedia messages. Besides, mobile devices promote literacy development through interaction over social networks, composing emails and surfing on the information superhighway or worldwide web (Belalcázar 2015:27). The seemingly inconsequential subsidiary functions of handheld mobile technological gadgets like mobile phones and tablets have generally created intense curiosity and interest into the inquiry of the educational worth of mobile devices as tools that support and promote the development of literacy skills amongst learners.

Today one contemporary view in education upholds the belief that embedding mobile devices into the learners' schooling environment creates limitless prospects for enriching their classroom and out-of-classroom learning experiences. The envisaged likely didactic value of portable mobile gadgets resides in the natural in-built product features these devices have. Mobile devices can enrich the educational experiences of learners as they can be tailored to meet individual learners' needs as they promote natural spur-of-the-moment learning, encourage informal learning and learning can take place anytime and anywhere (Miangah & Nezarat 2012: 309). Thus, mobile devices have created immense prospects for reading and literacy development, which seem to have extended and

unlocked a niche of empirical inquiry into the usefulness of mobile devices as media for teaching reading and literacy development (Long 2014:2; Walters 2012:10; Kaleebu, Gee, Jones & Watson 2013:53). The research literature is filled with findings and examples on the various literacy development opportunities that mobile devices can afford learners. This study focused on how handheld mobile devices could be used as platforms to inspire a healthy leisure reading culture among a group of young Zimbabwean learners.

In this chapter, the researcher will discuss the growth and application of mobile phones in the various facets of human life. Moreover, the popularity of mobile phones among young people will be included. Furthermore, this chapter will introduce the central problem and questions of the study. The key concepts such as Mobile Reading Devices (MRDs) and Mobile Reading (m-reading) will be defined. Also, the context of the study will be outlined and it shall provide a justification of the study and problem statement. The research questions, aims of the study and research methods are also stated in this chapter. The chapter also provides a conceptual framework of key terms used in the study and the division of the study into six chapters.

## **1.2 Mobile Reading Devices (MRDS), Mobiles for Reading (M4R) and Mobile Reading (m-reading)**

Two concepts are very pivotal to the study. It is vital at this stage to create a working definition and establish a common understanding of these two key elements used in the study. These two concepts are MRDs and m-reading. MRDs are defined by USAID (2014:12) as:

*.... portable, typically battery-powered and ... may be connected to cellular networks and/or the Internet ... [these devices] help children/ [learners] to learn to read, practice reading (reading to learn) and acquire a broader range of learning skills that support participation in a literate society*

An elaborate and simple definition of the concept of m-reading is advanced by Rochester (2015:1) who considers m-reading to be;

*the act of reading and consuming digital content on mobile devices such as cell phones, tablets, personal computers, e-readers, etc, which covers e-books, e-newspapers, [m-novels], mobile cartoons.*

Another definition of m-reading is offered by Ciampa (2014:8) who views 'mobile eBook reading [as] the reading of digitised books... that is done on mobile technical devices or tablet computers (i.e. iPads)'.

The foregoing explanations of m-reading are sufficient for this study as they share convergent features. First, both definitions acknowledge that the key features of the instrument used for performing m-reading which makes it suited to the act are its portability and ubiquity. Furthermore, texts or transcripts to be read are presented digitally, permitting them to be saved and recovered from the mobile gadget at the reader's expediency. In both formal and informal learning environments, reading using mobile gadgets can also take place.

Principally, m-reading has achieved recognition as a discipline of scholarly investigation because of the 'mobiles for reading' (M4R) initiative inaugurated by UNESCO (2014). The refrain 'mobiles for reading' enunciates the world body's global agenda to campaign for the widespread use of the mobile phone as a tool for advancing literacy, particularly, in less economically developed countries, which are often impoverished in terms of books but are richly endowed with mobile devices (Traxler & Vosloo 2014:17). Consequently, MRDs and M4R can be equated to a double-edged sword when considered in conversations surrounding m-reading. Also, MRDs and m-reading are interrelated and mutually dependent on each other. It is considering the foregoing rationale that this research effort adopted a school-based m-reading initiative to investigate the degree that a group of juvenile learners in Zimbabwe were attuned and geared to utilise their mobile phones to advance their literacy practices and lifelong learning skills.

Characteristically, mobile devices know no age and are common amongst the youth. Undoubtedly, the adoption of mobile devices by the youth of Southern Africa is on the rise and this presented the researcher with an opportunity to investigate how mobile devices can enhance literacy skills amongst the adolescent population of Zimbabwe.

### **1.3. The Zimbabwean Context of the study**

Zimbabwe is a southern African country and has an estimated population of around fourteen million. It boasts a very high literacy rate with over 90 percent of the population having gained basic functional literacy skills such as reading, writing and numeracy (UNECA 2018:23). However, despite her success in equipping her citizenry with basic literacy skills, there are significant concerns that this success in basic literacy acquisition

has not translated into a robust and healthy reading culture amongst the general populace. The major concerns revolve around the seemingly poor leisure reading culture of the adolescent population in the country, which seems to die with each passing generation.

### **1.3.1 The decline of reading for leisure in Zimbabwe.**

Several factors have been identified as likely contributing to the dwindling culture of reading for leisure amongst the Zimbabwean populace, especially amongst the youth. The major factor is the distraction of technology and the irony lies in the low cost of technological devices to the ever-increasing costs of books in Zimbabwe (Nkomo 2015:2). Other reasons for the decline of reading in Zimbabwe include economic hardships, which coupled with the high cost of printed books, limit access to printed materials, the lack of intriguing works of literature and the emphasis on an academic study at the expense of reading for leisure (Makaudze 2015: 4-13).

When interviewed about the current state of literature in Zimbabwe by the Sentinel Literary Quarterly (2011:1), Christopher Mlalazi, a Zimbabwean-born writer based in the United Kingdom, bemoans how video games and the DVD player have replaced the love for reading amongst Zimbabwean youth. Mlalazi, as a creative writer, laments how his and other writers' products (books) are finding no consumers as their audience is preoccupied elsewhere. According to Mlalazi (2011; 1), the novel is no longer being regarded as social recreation but read-only for educational purposes when it is the prescribed school set book. Also, he makes another important observation about the failing reading culture in Zimbabwe. He notes how technology has stolen the hearts of would-be readers. In contrast to Mlalazi's views, Ignatius Mabasa, another Zimbabwean writer, feels that the solution to this problem lies in taking advantage of the prospects provided by MRDs, to get Zimbabweans reading again (Herald 2014:1). New technologies like mobile devices can be a double-edged sword for promoting a positive reading culture amongst Zimbabwe's adolescent learners. They have the potential to take away would-be readers from the printed pages while creating vast opportunities for m-reading at the same time (Zimbabwe Reads 2011:7). This study introduced a group of adolescent learners to the use of MRDs in a structured manner to see how they responded to such a reading intervention that leveraged mobile technological devices as the premium reading media.

Apart from technological distraction and disruption being cited as the major reasons for the decline of a reading culture in Zimbabwe, they have advanced even economic reasons

as accounting for the death of a vibrant reading culture among Zimbabwe's adult and young generations. Reading for leisure has for a long time been considered a luxury by many people in Zimbabwe. The prohibitive cost of books, especially novels, has often been perceived as the reason why Zimbabweans lack a healthy reading culture. Chairperson of the Zimbabwe International Book Fair (ZIBF) at the time in 2014, Musaemura Zimunya, attributes the lack of a reading culture in Zimbabwe to the economic woes bedevilling the country (News Day: 2014:1). Books have become out of reach for many Zimbabweans, especially adolescent learners who rely on their parents for financial support. Therefore, this implies that adolescent learners lack access to wide-ranging and quality reading materials, which can support their literacy development.

Other reasons such as poor or no reading promotion in the home, school and nation at large have also been identified as contributing to the poor reading habits of Zimbabweans. Zimbabwean literature has often been described as suffering from a dearth of serious creative works of literature that offer intrigue and illuminate life (Makaudze 2015:12; News Day 2013:1). Further, this phenomenon is described by Vambe (2012:1) as the propagated and excruciating absence of art faculty in Zimbabwean literature. They have accused Zimbabwean literature both in English and indigenous languages of recycling the age-old theme of the war of liberation, which has lost its appeal and currency among readers of the younger generations. However, Zimbabwean literature, though relevant, does not make up the only literary genre available for reading as literature from all over the world is readily available to young readers.

### **1.3.2 The use of mobile phones by young people in Zimbabwe**

Today mobile phones have become so widespread and commonplace amongst Zimbabwe's adolescent population that everybody has become accustomed to them. Zimbabwe has a total of twelve million active mobile phone subscribers out of an estimated total population of fourteen million and a mobile penetration rate of 90% (POTRAZ 2015:1). Although no age disaggregated data on mobile phone ownership in Zimbabwe is available, it can be inferred from the statistics that mobile phones are firmly placed in the hands of Zimbabwe's urban youth.

The utility of mobile devices to the youth has been the subject of many studies around the world and one common thread emerging from the literature is that the world of the youth now revolves around their mobiles. Lowering device costs with sophisticated functional

features, low data costs and the provision of mobile applications are some reasons which have spurred the youth to own mobiles (Sambira 2013:1). Mobile devices have penetrated the lives of the youth in a multi-functional way. The multiple functionality of mobile devices in the lives of young people can be analysed under four broad themes namely the communicative, economic, educative and social functions of a mobile devices.

The primary use of mobile phones amongst the young is to communicate through voice calls, messaging through short message service (SMS) and chatting on data-enabled message applications like WhatsApp, Instagram, Mixit, Twitter and Facebook. In a comparative study of children's use of mobiles in five countries namely Indonesia, India, Japan, Chile and Egypt, Livingstone (2013:10) notes that children as young as twelve prefer calling people using their mobiles and this inclination changes to messaging as they grow older. In Botswana, the oral communication function of mobiles is dominant among younger adolescents because parents want to constantly stay in touch with their children to ensure their safety (Lesitaokana 2014:31). In a study of two hundred University of Zimbabwe students, Khari (2011:7) found that seventy-five percent always texted or exchanged SMS messages while only thirty-seven percent of the respondents always called using their mobiles. Voice call-tariffs in Zimbabwe are slightly higher than other nation-states in the Southern African Development Community (SADC) region, hence the preference to use messenger services over voice calls.

The economic worth of mobile phones amongst the youth can neither be overstated nor understated, while certain mobile phone brands automatically lend themselves to being status symbols. Mobiles have also enabled young people to take part in the economic development of their countries. They are a fashion statement and source of recognition for Zimbabwean youth (Njeru2014: iv). According to Sambira (2013:1), teenagers in rural Namibia are adopting mobiles as a platform to market and sell their farm produce like mushrooms. Besides, mobiles have led to the creation of employment in Africa and Zimbabwe in particular (Aker & Mbiti 2010: 219). The mobile phone industry offers direct employment for some individuals who are employed in various capacities by different telecommunications service providers. Subsequently, the growth of the mobile phone industry has also resulted in the emergence of other supporting businesses which have created informal trade opportunities for the unemployed youth in Zimbabwe resulting in the growth of mobile entrepreneurship. These include airtime distributorship businesses, airtime vending on the street, buying and selling of mobile phone handsets and



accessories, mobile application development and mobile phone repairing businesses. Another feature of mobile telephony that has made the youth economic participants in their countries is the introduction of mobile money services such as M-PESA in Kenya and Ecocash in Zimbabwe (Aker & Mbiti 2010:220; Kufandirimbwa, Zanamwe, Hapanyengwi & Kabanda 2013:94). Using mobile money, the youth can purchase airtime, receive money from parents or relatives in the diaspora and make bill payments. Apart from this, the advent of mobile money in Zimbabwe has also further created more business opportunities for the formal and informal sectors in Zimbabwe and the youth by an extension (Kufandirimbwa et al 2013:94). In 2014, UNESCO launched the 'Youth Mobile' initiative, a global plan, whose stated purpose is to ease persistent youth unemployment through the support of digital entrepreneurship in the form of Mobile application development and selling (UNESCO 2016:5). Such initiatives allude to the potential benefits Zimbabwean youths can derive from being part of the growing mobile economy.

Furthermore, mobile devices have led not only to the digital inclusion of youth in Zimbabwe but have provided avenues for their social inclusion as well. This is achieved through increased social interaction, cooperation and engagement in socio-political issues which shape their lives daily (Avis 2015: 2). Aptly, UNESCO (2016:2) captures the impact mobiles have on the lives of the young when it asserts that:

*...for millions of young people, the Smartphone in their pocket is a very powerful computer and probably their only computer used for nearly every aspect of their lives: communicating, learning, taking pictures, and playing games.*

Accordingly, Zimbabwean youth also use their mobile phones for accessing and chatting on social media, exchanging pictures and videos over various social media platforms. Besides, they are accessing the internet for study material and news features and listening to music on their devices. Reading is also another function that young learners can actively engage in on their mobile phones.

The literature reveals that the application of mobile phones to educational contexts has had a positive impact on teaching and learning. High school youth in three sub-Saharan countries namely Malawi, South Africa and Ghana reported that they used their mobile phones for accessing learning content directly related to the school syllabus from the internet (Porter et al 2016: 25). In Zimbabwe, students also use their mobiles for study purposes such as searching for information on the internet, submitting assignments,

reading course notes, file sharing, interacting with peers and academic staff (Gröbhiel & Pimmer 2014:1; Kahari 2011:8 ; Sibanda & Musungwini 2015:124).

### **1.3.3 The importance of reading**

Reading is a key skill in the linguistic and intellectual development of learners. This study focused on reading in the English language as English is the official language (medium) of instruction at the secondary school level in Zimbabwe (Gora 2013:124; Muchenje, Goronga & Bondai 2013:501). Research on literacy development in Africa has shown that early grade learners on the continent are failing to make the all-important transition from learning to read to reading to learn (Worldreader 2014:10). The primary emphasis in the learning to read stage (grades 1-3), is on the mechanical aspects of reading itself. This is the elementary stage where the key emphasis is placed upon the development of basic literacy skills amongst learners. During this phase, learners learn how to sound out phonics, combine sounds to form words and interlace those words together to form sentences. The reading to learn phase (grade 4 upwards), on the other hand, is where reading should have become natural to they expect the learner to absorb the information being read and not focus on the sounds of language. It is necessary for a proficient reader who reads with understanding to have gained the key aspects involved in reading which are phonemic awareness, phonics, word recognition, fluency, vocabulary and comprehension (Nel & Nel 2016:105).

Moreover, reading is fundamental to academic study as it forms the gateway to knowledge across disciplines. Hence, it becomes imperative for adolescent learners to develop a culture of reading so that they develop lifelong literacy skills and create for themselves endless possibilities and opportunities to gain knowledge. This will require reading for lifelong learning and not just reading for examination purposes. Taking this background into consideration, it became essential for this study to commission an m-reading initiative that leveraged the use of MRDs as a potentially game-changing innovation that could be used to rebuild the dying reading culture amongst Zimbabwe's adolescent learners. Therefore, this study set out to introduce m-reading in a structured manner to a group of adolescent learners to find out how they responded to such a reading intervention programme using mobile phones.

The motivation of this qualitative action research inquiry was to explore the connections between reading using handheld technological devices (also known as mobile reading

devices-MRDs), smartphones, iPads and android tablets in the promotion of a reading culture amid a group of teenage learners in Zimbabwe.

#### **1.3.4 The use of mobile phones in Zimbabwean schools**

Zimbabwe, like in most African countries, has adopted an indifferent attitude towards mobile phone use in schools. Resultantly, mobiles are outlawed in Zimbabwean schools and colleges. Learners simply may not bring or use mobile phones at school. The current position stems from the widely held belief that mobiles are a distraction and disruptive to learning. The non-believers in using mobile phones maintain that introducing mobile devices into formal teaching and learning situations might create chaos to otherwise already harmonious teaching and learning environment, which should ideally prevail in schools (Porter et al. 2016:23). However, experience has shown that learners are smuggling mobile devices into the schools in various ways and for various reasons. For some, it is cool to defy the school rules and for others; it is out of a genuine desire to communicate with their parents later in the school day so that they can perform family assigned tasks and chores on their way from school. It is only when a device is reported stolen or rings unexpectedly in the presence of a school official that the practice of mobile device smuggling into the school becomes apparent.

It is considering the foregoing observations that it is clear why the acceptance and adoption of mobile devices within Zimbabwe's schools has sparked a heated debate amongst education stakeholders. The then minister of Primary and Secondary education, Dr Lazarus Dokora, torched a storm in February 2015 when he stated that we should allow learners to carry mobile devices to school. While the minister's position was premised on the argument that mobiles are twenty-first-century devices, therefore, ideal tools for enhancing learning in the mobile learning dispensation. They dismissed his views as outrageous as they threatened the current status quo. Consequently, no official policy guidelines have been communicated by Ministry of Primary and Secondary Education (MoPSE) in Zimbabwe on the incorporation and usage of mobile devices to promote school teaching and learning (Elleston & Burgess 2015: 130).

Concerning mobile reading in Zimbabwe, diverse schools of thought emerge. Some stakeholders view technology as most likely contributing to the possible decline and in turn eventual disappearance of Zimbabwe's leisure reading culture.

Then, others realise the potential mobile technologies may have in reviving the reading culture among the youth in Zimbabwe (Herald 2014; Standard 2013; UNESCO 2014). Hubbard (2009:9) views technology use in language teaching and learning as contradictory in itself. According to Hubbard, this irony leads to an exciting and yet challenging pedagogical scenario in the language classroom. Excitement arises from the fact that technology offers unbridled opportunities for reading and literacy development and the challenge lies in that the technological environment is constantly in a state of flux and it might be difficult to keep abreast with changes. As a result, this study made use of a pedagogical intervention that took advantage of the inherent qualities of MRDs and investigates the impact these had on the literacy development and practices of a group of juvenile learners in Zimbabwe.

### **1.3.5 Mobile reading devices and the Bioecological of adolescent literacy development**

The Ecological systems theory (1977) propounded by Urie Bronfenbrenner, which he later updated to become the Bioecological systems theory (2003), is widely revered in the field of human development. Bronfenbrenner proposed that human development alludes to the biological, cognitive, social and spiritual changes an individual undergoes in response to environmental contexts. This ecology of human development as he called it, comprises complex interdependent systems that influence development transformations in a becoming individual's life course (Agosto, Soto-Crespo, Vizcarrondo-Opppenheimer, Vega-Molina & Coll 2017:900). However, this time-honoured conception of human development is being challenged by a new mobile technological dispensation that seems to redefine traditional environmental contexts within which individuals are growing up.

Bronfenbrenner suggested an ecological system made up of four nested environmental systems within which human development takes place. He named them the microsystem, mesosystem, exosystem and macrosystem. It is within these environmental systems that Bronfenbrenner identified engines of growth or forces with which the developing individual interacted and transacted with known as proximal processes (Ettelkal & Mahoney 2017:5). Mobile technologies have undoubtedly added a more dynamic and fluid dimension to these previously static human developmental contexts as they seem to have a cross-cutting influence on the proximal processes shaping human development.

The implications mobile devices have on adolescent development are immense. The literacy development possibilities offered by these mobile reading technologies seem phenomenal. Bronfenbrenner's bioecological systems theory offered an ideal lens through which adolescent mobile literacy development to other human development facets was investigated (see section 3.3.1). Bronfenbrenner's theory of human development has also been extrapolated elsewhere by Jaeger (2016) to account for the literacy development of the growing individual (Rojas-Drummond 2016:188). This study also adopted a bioecological approach to review the influence the different environmental systems had on adolescent literacy development and more importantly, how these might shape adolescent literacy development in the mobile age.

#### **1.4 Motivation of the study**

Technology has become so important in the lives of the twenty-first-century learner that it would be folly by language teachers and reading specialists in particular to ignore the implications it could have on the literacy development of adolescent learners. This includes the adolescent learners at Forward in Faith Christian College, where the study was conducted. The researcher's experience as an English language teacher for eighteen years, in both rural and urban secondary schools in Zimbabwe, has shown a lack of enthusiasm by adolescent learners to read for leisure.

Furthermore, UNESCO (2011:4) notes with great optimism the potential of information communication technologies in transforming nations' educational systems the world over. After a study on Mobiles for reading (M4R) in seven countries in Africa and Asia had been conducted, UNESCO (2014:83) concluded that a 'reading revolution' has dawned across the developing world because of mobile reading technologies. It is from this standpoint that this study embarked to broaden the empirical knowledge base about the different forms of mobile technologies and the role they can play in enhancing adolescent literacy development in Africa. While UNESCO's study is a snapshot survey of the extent of use of MRDs in the developing world and it touts a reading revolution, this revolution is meaningless if reading practitioners are not equipped with adequate knowledge on how to deploy these technologies within their various instructional contexts. This particular study, therefore, focused on how MRDs can be used to develop positive and desirable reading behaviour among a cohort of adolescent learners in Zimbabwe.

Literacy professionals in Africa and Zimbabwe stand to benefit immensely from a study of this nature. The research aimed to understand thoroughly how the teaching and learning of reading and the literacy development of teenage learners could be enriched through the use of mobile reading technologies. The cyber society is now a reality; classrooms are becoming 'smarter' (i.e. smart classrooms and e-classrooms) and Zimbabwean teachers can no longer afford to continue to cast a blind eye towards these trends and developments. This study is, therefore, relevant because it attempts to empirically validate the effectiveness of information communication technologies in the advancement and development of a viable adolescent reading culture in Zimbabwe. The study further attempted to move the Zimbabwean English Language teaching profession within reach of technological developments taking place in reading instruction within the 21<sup>st</sup> century.

USAID (2014:1) acknowledges that the mobile for the reading arena is a relatively new research focus area, with a dearth need of empirical studies to validate mainly donor-funded projects or initiatives being run in low to medium income countries around the African and Asian countries. It is further noted with grave concern how the research parameters within the space of mobiles for reading are often donor-defined and not practitioner-defined. Hence, very little empirical evidence exists on how MRDs can be used for the optimal literacy development of the learner within the context of developing countries. This study is, thus, a direct response to these observations as it is both practitioner-initiated and empirically-based within the qualitative research tradition. Hopefully, the findings from this research will act as a point of reference, which can be used to guide and assist in the formulation of policy and decision-making on the use of MRDs in Southern African schools.

It is hoped that insights obtained from this study will lead to the generation of a framework to support the integration of mobile reading technologies into the reading classroom for the optimal benefit of adolescent learners in Zimbabwe and other African countries. The framework may be used in part for identifying necessary key ICT competencies essential for language learners and teachers in Zimbabwe and how these competencies can be developed and inculcated into the school and language teacher education curricula.

Also, the researcher hopes to act as a possible change agent, attempting to bridge not only the digital divide between the classroom in the developed world and the Zimbabwean classroom but to provide a bridge between traditional and modern pedagogical approaches

to the teaching of reading in Zimbabwe. Such a stance is justified by the observations made by Tatira, Sithole, Manayrara and Gora (2009:90) who report the distressingly low uptake and pedagogical use of Information Communication Technologies (ICTs) in Zimbabwe's primary and secondary schools. They go on to attribute this low uptake of ICTs to teachers' attitudes namely conservatism and perhaps technophobia. It is, therefore, anticipated that this study will stimulate interest among teachers and researchers about mobile device use for reading promotion amongst language learners in Zimbabwe. This will lead to increased scholarly output and academic discourse on the subject among teachers and researchers.

Last, the study will make recommendations and lay a foundation for other studies that could aim to investigate the intersection between mobile devices and other language skills in the Zimbabwean and the Southern African context.

### **1.5 Statement of the problem**

The researcher has been teaching the English Language in both rural and urban high schools in Zimbabwe for eighteen years. Throughout his eighteen-year career, the researcher has noted with concern a growing unwillingness and most times an inability by adolescent learners to read. It seems many adolescent learners in Zimbabwe's secondary schools have regressed to a state of semi literacy or complete illiteracy. The literature reviewed in the introductory section of this study affirms this deficiency of a vibrant culture of reading for leisure among the adolescent generation in Zimbabwe (Herald 2014; Standard 2013). A contradiction endures amidst Zimbabwe's lofty literacy rates at one end and a very run-down reading culture (Makaudze, 2015). Teenagers in Zimbabwe appear to have ceased to read for leisure. Nevertheless, it is unmistakable that these adolescents are 'digital natives' and twenty-first-century learners (Prensky 2001:2). This implies that they have been born into a technological environment in which mobile technological gadgets play an integral and yet fundamental part in the social and academic lives of these teenagers. Resultantly, this could be one of the many plausible explanations they find it challenging and untenable to interact with reading media that is printed on paper. Thus, this inquiry intended to explore how a mobile reading project that exploited the intrinsic characteristic features of MRDs could be used to encourage adolescent learners in Zimbabwe to read for pleasure and self-enrichment.

## **1.6 Research questions**

### **1.6.1 Main Research question**

The following key research question was asked to objectively analyse the effect of the mobile reading programme on the reading habits of a group of adolescent learners in Zimbabwe:

- To what extent are a group of Zimbabwean adolescent learners willing to use their mobile devices like phones and tablets to read for leisure ahead of other gratifying utilities offered by their mobile devices?

### **1.6.2 Sub-research questions**

Sub-questions that arose from the fundamental question were as follows;

1. What are the current literacy practices and reading habits of a group of adolescent learners in Zimbabwe?
2. What are the current attitudes and perceptions of a group of adolescent learners in Zimbabwe towards reading for pleasure and self-enrichment?
3. In what ways can mobile reading devices (MRDs) be used to change the reading habits of a group of adolescent learners in Zimbabwe?
4. How does the use of mobile reading devices (MRDs) influence the attitudes and perceptions of Zimbabwean adolescent learners towards reading for self-enrichment?

## **1.7 Aims of the study**

### **1.7.1 Main research aim:**

This study sought to:

To explore ways in which MRDs such as mobile phones and tablets can be used to sustain and promote a lifelong culture of reading for leisure among a group of adolescent learners in Zimbabwe.

### **1.7.2 Sub-research aims**

The following sub-research aims arose from the main research aim:

- To determine the current literacy practices and reading habits amongst a group of adolescent learners in Zimbabwe.



- To identify the existing attitudes and perceptions of Zimbabwean adolescent learners towards reading for pleasure and self-enrichment.
- To investigate ways in which mobile technologies can be used to change the reading habits of a group of Zimbabwean adolescent learners.
- To assess the impact of mobile reading devices (MRDs) on the attitudes and perceptions of a group of adolescent learners in Zimbabwe towards reading for self-enrichment.

### **1.8 Research methods and design**

This thesis followed the tradition of qualitative analysis. Qualitative research is an interpretive approach that captures the diversity of people's everyday lives (Yin 2011:4). Qualitative analysis involves:

*the study of the various phenomena in their natural setting with the goal directed at attempting to making sense of or interpreting the phenomena in terms of the meanings people bring to them* (Denzin & Lincoln 2011:3).

The qualitative approach was chosen for this research study as it provided an adequate means through which it could address the central question of the research enquiry. The fundamental goal of this study was to comprehend how a reading intervention that leveraged the innate features of MRDs can be adopted to spur a group of teenage learners in Zimbabwe to read for delight, self-indulgence and self-enrichment. Moreover, the qualitative research tradition rendered itself appropriate to suit the goals of this study as it afforded the researcher a unique opportunity to connect and reach out to the participants as they uncovered narratives of their mobile reading experiences. These chronicles of mobile reading echoed how the adolescent learners journeyed with MRDs and affected their personal reading lives and reading practices daily.

This inquiry was rooted within the constructivist paradigm. Essentially, constructivism allowed the researcher to create a common understanding through mutually crafted and co-constructed meaning from their collaborative discourses and interpretations of mobile reading (Ritchie, Lewis, Nicholls & Ormston 2013:13). The researcher dug deep and tap into the digital reading habits of Zimbabwe's adolescent cyber generation to probe the different ways in which the young learners interacted with MRDs in their lives and the meaning they ascribed to these omnipresent reading media. Whereas the participants endeavoured to create an understanding of the role MRDs played in their lives as readers, the researcher also went to painstaking lengths to unearth the significance of MRDs for

the promotion of a vibrant culture of reading among a group of teenage learners in Zimbabwe.

The researcher adopted Action research as the overall research design for this mobile reading study. Conceptually, action research is described by Burns (2010:5) as *[a] small scale intervention in the functioning of the real world and a close examination of the effects of such [an] intervention*. Here, MRDs were a novel innovation that also served as an intervention meant to stimulate desire amongst the participants to alter their literacy practices for the better. The action was directed towards empowering the participants on their journey of becoming mobile and lifelong readers. The preceding contention is appropriately encapsulated by the principal goal of the research which entailed investigating the connections emerging between MRDs and the reading habits of a group of Zimbabwean adolescent learners.

The researcher chose the action research design for this mobile reading research. Thus, it presented the researcher with ample opportunity to scrutinise what is and envision what might be imagined as far as adolescent mobile reading is concerned (Klein 2012:3). As noted in the literature survey, MRDs will revolutionise reading pedagogy in the developing world. This study did not merely seek to confirm this but through action, interrogated the limitless opportunities which MRDs offered pubescent learners in reading and literacy education in Zimbabwe.

On the whole, the qualitative action research strategy implemented in this study facilitated the use of an interpretive approach that supported a self-reflexive and self-critical perspective to mobile reading. In addition, action research helped the researcher to step closer to linger, connect, recognise and rediscover the complexities and nuances of practice (Bresler 2006:56).

### **1.8.1 Study population and selection of participants**

The research site for this qualitative action research study was Forward in Faith Christian College, an independent school located in Harare, the capital city of Zimbabwe. Forward in Faith Christian College is a registered private co-educational college. The school is registered in terms of Zimbabwe's education act. Forward in Faith Christian College formerly called Christ for Zimbabwe College opened its doors in 2007. It rebranded in 2016 in a bid to appeal to a new group of clientele. The school offers the Cambridge international curriculum as its main academic course of study. Forward in Faith Christian

College enrolls secondary school students from Forms one to six. It is a middle-income level fee-paying private international school with a total enrolment of one hundred and twenty-seven learners in 2018.

The population for the study comprised twenty-three learners, conveniently chosen from the Forms 2, 3 and 4 classes at Forward in Faith Christian College. Convenience sampling involves picking data collection subjects because they are readily and easily available (Yin 2011:88). The three classes had a combined enrolment of fifty-seven learners. Twenty-three of these learners were conveniently picked by volunteering to take part in the study. These twenty-three learners, whose average age was fifteen, were chosen to take part in this study as their demographic characteristics best reflected the average age, interests and situation of the typical Zimbabwean adolescent. Zimbabwean urban adolescent learners are typically techno-savvy, always crazy about the latest mobile phone or tablet model and greatly influenced by media, popular culture and fashion trends.

### **1.8.2 Instrumentation and data collection techniques**

Data collection proceeded in three parts, which matched with the stages of the action research process. The first phase was the pre-mobile reading phase followed by the during-mobile reading phase and then the after-mobile reading phase.

#### *(i) Pre-mobile reading phase*

The pre-mobile reading stage of this action research study was the 'reconnaissance' stage (Tripp 2005:452). Reconnaissance can best be described as the point of entry to data collection in action research. The objective, at this stage, was to carry out a pre-mobile reading intervention appraisal of the state of reading affairs on the ground. The thrust was to obtain an understanding and appreciation of the status quo, which comprised the research environment, participants and their literacy practices. With this particular study, the researcher carried out the situational audit out using a modified version of the 'literacy practices interview' (Moje & Tysvaer, 2010:31). This data collection method was intended to prompt the adolescent participants to share information on their attitudes and perception towards reading and the kind of texts (print, digital and oral) they enjoyed reading, have read and would like to read in the future. All twenty-three participants were interviewed independently using the literacy practices interview to unearth their attitude towards reading. The instrument also elicited data that answered and addressed the first research

question in which the analysis sought to define the current reading views, attitudes and practices of adolescent learners in Zimbabwe.

*(ii) During mobile reading*

The researcher introduced the concept of m-reading and MRDs. Using the Bring Your Own Device model (BYDO), the participants' mobile devices were preloaded with reading material from Worldreader's free mobile application which is compatible with all android and iOS operating systems. The mobile reading initiative was rolled out as a 'mobile reading book club', which ran fourteen weeks from 9 February 2018 to 11 May 2018. During this part of the study, data was gathered through mobile reading diaries which the participants kept and recorded their unconstrained and unrestrained feelings, pleasures, sorrow and experiences during their journeys of becoming mobile readers. During this phase of the study, the participants also discovered their preferred mobile reading application called 'Wattpad. This application was incorporated into the study because of its popularity amongst the participants. The researcher maintained a 'reflective journal' to record the reactions, reflections, insights, feelings and beliefs of the participants throughout the weekly mobile reading book club meetings and any other related meetings or conversations held over this period (Burns 2010:90). Journals and diaries were tremendously valuable to the researcher and participants in that they enabled the capturing of important reflections and events in an ongoing manner (Burns 2010:89).

This segment of the data-gathering process addressed the second and third research questions of the study that endeavoured to establish how mobile reading technologies could be exploited to alter the reading habits of adolescent learners and the impact these reading technologies may have on adolescent learners in Zimbabwe, respectively.

*(iii) Post-mobile reading*

At the end of the mobile-reading period, which lasted fourteen weeks, an evaluative task-based focus group activity was conducted. The twenty-three participants were mandated to author a letter to a close friend relating their mobile reading experiences. This was an appropriate and ideal data collection technique as the letter enabled the participants to convey their inmost thoughts and intimate feelings about reading for self-enrichment using MRDs. The focus group, as a data collection strategy, provided a secure environment that insulated the participants from the anxieties often associated with the individual interview

(Onwuegbuzie, Leech & Collins 2010:711). Besides, the data collected from the 'literacy practices interviews' became very beneficial in this stage of the data collection process. It offered a baseline for the comparison and re-examination of the participants' reading habits after they had been subjected to the mobile reading intervention.

The post-mobile reading phase of the data collection process answered the fourth research question. This question examined the influence of the mobile reading initiative on the attitudes and perceptions of Zimbabwean adolescent learners towards reading for self-enrichment.

### **1.8.3 Data analysis and interpretation**

The analysis of data is a very vital stage in the qualitative research process. Hatch (2002:148 cited in Leech & Onwuegbuzie, 2007:564) expressively describes data analysis as:

*... a systematic search for meaning. It is a way to process qualitative data so that what has been learned can be communicated to others. Analysis means organising and interrogating data in ways that allow researchers to see patterns, identify themes, discover relationships, develop explanations, make interpretations, mount critiques, or generate theories. It often involves synthesis, evaluation, interpretation, categorisation, hypothesising, comparison and pattern finding.*

An inductive approach to data analysis was adopted to deduce common recurring issues and emergent themes about the reading habits of Zimbabwean adolescent learners using MRDs. The raw data collected from the literary practice interviews, the participant's diaries, researcher's journal and task-based focus group activities, were organised, sifted and reduced to manageable units. The data were analysed manually, coded and then categorised according to the emergent themes.

### **1.8.4 Reliability and validity/credibility and trustworthiness**

To lend credence to the results of this study, the researcher used triangulation, member checking and audit trail. These strategies helped to legitimise the results of the study.

Triangulation is one strategy that can be used to increase the validity of research findings. It is a quality assurance technique in research that entails the use of a plurality of methods, multiple data sources, numerous investigators and multiple theories to overcome the

inherent biases or flaws associated with a study, which makes use of a single method, observer or theory (Merriam 2009:215; Yeasmin & Rahman 2012:154). In this study, multiple data collection techniques like the literacy practices interviews, participant diaries, researcher's journal and a task-based focus group discussion were used to maximise the credibility of the findings. The findings from the data of the various instruments were compared for convergent themes to further strengthen the validity of the findings.

The audit trail is the study's indelible footprint, proof or lack thereof, of a rigorous and systematic process in the quest for knowledge, is necessary. The methods, procedures and materials used in this study, will be elaborately documented (Gall, Gall & Borg, 2007), making it possible for any would-be follower to retrace the qualitative action research journey undertaken in this study. In this study, the researcher kept a journal in which formal and casual interactions with participants were recorded. Also, milestones in the study, decisions, methods and procedures are illuminated in the researcher's journal.

### **1.8.5 Research ethics**

Research ethics are premised on the idea of protecting human participants from harm and conducting research in a responsible and morally acceptable manner (Medicins Sans Frontiers, 2007:5). The ethical framework adopted in this study is guided but not confined to the three basic ethical principles of informed consent, confidentiality and voluntary participation.

Permission to research at Forward in Faith Christian College was sought from the Principal of the school (See Appendix E). Additionally, permission was sought from Worldreader to use their free mobile reading application for research purposes (See Appendix C).

Burns (2010:35) notes that the process of obtaining informed consent and assent involves giving 'sufficient information to the participants on the procedures, purpose and effects of the study on them.' Firstly, the researcher took the time to fully explain to the participants how they would be involved in the mobile reading study and what their participation implied (See Appendix G for participant information guide). By providing as much information to the participants as possible, the researcher undertook the responsibility not to deceive his participants. Since the participants in this qualitative action research study were all school-going learners under the age of eighteen, written consent for their

participation in this study had to be obtained from the learners' parents (See Appendix G for parental consent letter). Once informed consent was obtained from the parents, the learners signed assent forms (See Appendix H for participant informed consent letter). Further to this, the participants were assured of the confidentiality with which their identity and responses would be treated with.

Kamhieh (2012:70) observes how the 'researcher-participant fiduciary relationship' presents an ethical challenge where the teacher is acting as a 'double agent' already possessing authority over the student. In this case, the teacher or researcher should be partial and honest enough to respect the participants' right to voluntary participation and right to withdrawal at any stage of the study. Thus, the teacher or researcher faces the same ethical dilemma, where the research participants are also his students. The researcher informed the participants of their rights to voluntary participation and withdrawal right at the onset of the research. Also, the researcher obtained ethical clearance from the Ethics Committee in the College of Education at UNISA (see appendix A for ethical clearance certificate).

### **1.9 Definition of terms**

The key terms used in this study are defined in the following section:

**Mobile learning** - Learning mediated and supported through portable wireless technological devices that can be pocketed and operated anywhere the learner's device can receive uninterrupted transmission signals (Attewell & Savill-Smith, 2005 cited in EL Hussein & Cronje 2010:12)'.

**Mobile reading** - The deed of deciphering and consuming content written in digital format using mobile devices such as phones, tablets, personal computers, e-readers, etc. Digital content that can be read on mobile devices covers e-books, e-newspapers, mobile cartoons (Rochester 2015:1).

**Mobile reading devices (MRDs) and Mobiles for reading (M4R).** These two concepts are synonymous and they refer to information communication technology gadgets that are compact, light and can be easily held in the hand. These gadgets are characteristically battery-operated and may be connected to mobile phone networks and/or the Internet. They can support learners as they learn to read, practice reading (reading to learn) and

gain wide-ranging competencies that promote their involvement in a knowledgeable and literate society (USAID, 2014:2).

**Reading habits-** Predispositions which make it possible that individuals will read on every occasion an opportunity presents itself. Their selection of reading materials is directed by their identities as readers in a mutually dependent relationship whereby their reader identities are, in turn, persistently shaped by their reading choices.

**Leisure reading** - Reading that does not discriminate a firm dividing line between scholarly and relaxation reading but recognises that students may read any text which interests them (Kamhieh 2012:64).

## **1.10 Chapter divisions**

### Chapter 1: Introduction to the study

The first chapter introduces the research topic and provides a background to the study. It also includes the problem statement and the aims of the study and a clarification of key concepts used in the study.

### Chapter 2: Mobile devices in educational contexts

In this chapter, cross-examination of the rise and use of mobile devices within various educational contexts was conducted. Themes relating to mobile devices used in formal, non-formal and informal educational contexts are also interrogated within the chapter. Policy issues relating to the adoption, acceptance and use of mobile devices within schools also looked at. The researcher dealt with issues relating to the professional and moral use or abuse of mobile devices within and outside schools with. Lastly, the chapter examined the use of mobiles in language teaching.

### Chapter 3: Reading and the use of mobiles as reading devices

This chapter reviewed the concept of reading, the bioecological theory, the reading engagement theory and the connected reading model, which form the theoretical backbone of this study. Reading in secondary school, juvenile reading habits and their digital reading habits were also examined. Furthermore, the chapter unpacked factors that have led to the growth of mobile reading, reading applications, emerging research trends in mobile reading and mobile reading in Zimbabwe. It closed with a look at the arguments for and against mobile reading.



#### Chapter 4: Research design and methodology

The research design of the study is outlined in this chapter. This chapter illustrated the methods, techniques and practical considerations that were made during this study.

#### Chapter 5: Research analysis and a discussion of the results

This chapter analysed and discussed the findings of the data collected in chapter four.

#### Chapter 6: Summary, recommendations and limitations

In this chapter, the researcher concluded the findings made on the impact mobile reading devices had on the reading habits of a group of Zimbabwean adolescent learners. The researcher made recommendations based on the findings of the study.

### **1.11 Conclusion**

This chapter set the stage for the rest of the study. The problem was stated and key research questions were posed. In the next chapter, a critical examination of mobile devices in education contexts will be undertaken. The next chapter will interrogate the philosophical, theoretical and pedagogical justifications of using mobile devices in educational contexts. Further, the chapter acts as a bridge, providing a span between the discourse on mobile learning in general and how it has facilitated, in particular, the rise of Mobile Assisted Language Learning (MALL). The purpose of the chapter is to lay the groundwork for the use of mobile devices in reading instruction and especially in reading for leisure, which is the primary focus of this study.

## **CHAPTER 2: MOBILE DEVICE USE IN EDUCATIONAL CONTEXTS**

### **2 Introduction**

This particular chapter explores the origins, use and growth of mobile devices within educational contexts. A critical analysis of how these mobile technologies have influenced pedagogy and vice versa is conducted. The African response to the usage of handheld mobile and portable devices in education will also be examined. Then, the chapter examines in depth the current usage trends of information communication technologies (ICTs) and mobile devices in Zimbabwe's education sector and how this will affect the study on mobile reading amongst a group of adolescent learners in Zimbabwe. The chapter further examines the challenges behind employing mobile gadgets as tools for teaching and learning in both traditional and unconventional learning contexts. Finally, this chapter lays the groundwork for the third chapter on literature review whose specific focus is on the various ways mobile technological devices have been applied to promote and support the development of reading and literacy.

### **2.1 A historical overview of the origins of mobile devices in education**

The use of mobile devices in education is not a phenomenon unique or confined to twenty-first-century educational practice. Mobile devices did not simply find their way into the classroom in the last ten years but the literature available reveals a long history of success, failure, imagination, experimentation, research and even accidental encounters for the current state of affairs to prevail. As far back as 1956, prominent learning theorist and behaviourist, B.F. Skinner had imagined the idea of a teaching machine that would support learners to learn in an independent and self-paced manner (McQuiggan, Kosturko, McQuiggan & Sabourin 2015:3). This section focuses specifically on the origins of mobile learning technologies in education.

#### **2.1.1 The early years**

The earliest documented attempt at introducing any form of personalised mobile learning device into the classroom can be traced to Alan Kay's (1972) Dynabook concept (Crompton 2013:8; Sharples 2003:506). The Dynabook was the first attempt at any handheld multimedia learning device to be conceived. Amongst its key intended features were portability, the ability to outrace human intellectual faculties of sight and hearing and an enormous storage capacity for future reference resources like poems, letters and

recipes (Crompton 2013:8). The Dynabook never really made it beyond the drawing board with only the prototype called Interim Dynabook being produced.

The Dynabook's tragic flaw is that it was an innovation conceived far before its time was ripe. The Dynabook did, however, sow the seeds of imagination and today's mobile devices like notebooks and tablets are exact replicas of this innovation.

### **2.1.2 Decades of change and innovation**

The 1980s brought with them innovations like the laptop. This type of personal computer was an instant hit and generally accepted into the school as a learning device. Also, it is during this decade that the cell phone made its debut on the market. During the 1990s, the laptop and mobile phone continued to evolve in terms of features. Besides, research continued in unison with these developments to focus on how best humans could learn with and from these mobile computing devices. However, the laptop because of its prohibitive costs, never found its way into most developing countries' classrooms. Despite the challenge set to build a laptop which cost under US\$100-00 meant for classroom use, the desired one laptop per child ratio remained a pipe dream as most schools and governments could not afford to fund this. It is during the 1990s that the innovations like the digital camera, the graphing calculator and Palm Pilot Personal Digital Assistants (PDAs) were developed (Crompton 2013:9). PDAs were most suited for schools as they contained programmes like calculators, tests, calendars, contacts, memos, photos and notepads.

The Handheld learning resource (HandLeR) by Sharples (2003:511) is an example of another mobile learning device that was developed and tested for educational purposes in the last decade of the twentieth century. The idea behind the HandLeR was to create a mobile learning device that would promote 'lifelong learning' and bridge the gap between learning at school and home. The HandLeR did not enjoy much success in practice and it was a monumental failure just like its predecessor the Dynabook (Pachler, Bachmair, Cook & Kress 2010:35). Meanwhile, the turn of the twenty-first century saw the mobile phone evolve into a powerful, smaller-sized, fast and highly functional alternative to the desktop computer. The growth and reach of mobile networks around the globe were also phenomenal. This unprecedented growth of the mobile phone and mobile networks across the globe even in remote places in Africa meant that mobile devices became a necessity and suddenly everyone owned or needed to own one. The mobile phone, which was

initially the preserve of adults, also became fashionable even for the young (Walters 2014:16).

### **2.1.3 The current state of affairs**

The release of Apples' iPad in 2010 and Samsung's Galaxy tablet in 2011 were revolutionary moments as far as mobile computing is concerned. The history of the current form of these devices can be traced back to two devices, which are Apple's message pad released in 1993 and US Robotics' Palm Pilot released in 1996 (Finn & Vandenharm 2004:22). Both devices were portable and enabled users to edit and create documents. The invention of the iPad and other generic tablets has opened up a whole new avenue of possibilities for the use of tablet PCs and other similar handheld devices in education (GSMA 2011:9). The iPad's appeal to teaching and learning is embedded in its book-like shape, adaptability, multi-touch finger-sensitive screen, simplicity and usability (Huber 2012:8). Suddenly, the paperless classroom seems within reach. Apple's iPad is a game-changer as far as mobile computing in education is concerned because its adaptability and flexibility allow for add-on software in the form of mobile applications (McQuiggan et al 2015: 5). Furthermore, textbook publishers like Pearson educational have set up mobile learning departments, dedicated to producing and providing digital content, which will drive the evolution from print to digital textbooks (Stones 2015:6). Studies to develop taxonomies for tablet use in the classroom have also been commissioned (Huber 2012:1). Meanwhile, the tablet's arrival had been heralded earlier by the smartphone in 2007. This has resulted in the creation of a diverse product range which has led to the availability of affordable smartphones and tablets on the market. Aptly, Goundar (2011:9) describes the advent of the tablet and smartphone as ushering in the post PC era.

Today mobile technologies continue to evolve at a remarkably rapid pace. Mobile devices like the cell phone, whose primary role started as a communication device, have greatly shifted into a social and educational role, taking on new meaning in the educational lives of learners from all over the world. UNESCO (2013:16) describes mobile devices as 'accidental learning tools' which have found their way into education because of their widespread availability in the lives of humankind. Whether accidental or intentional, numerous technologies have found their way into the classroom but alas, the classroom remains unchanged. From Skinner's teaching machine to the iPad, educators and learning specialists are still confounded with the search for an ideal teaching machine that will significantly improve learning outcomes and learner achievement rates in schools all

around the world. Ironically, this search has already been going on for over sixty years and not much progress has been made. Each new technology promises to revolutionise education better than the previous technology did. Regrettably, schools today continue to struggle to find the best teaching tool which will be the most ideal learning aid. Rightly, UNESCO (2015:3) captures this awkward quandary of the technological revolution in education when it asserts that:

*'...over the past 10 years, there has been no appreciable improvement in student achievement in reading, mathematics or science in countries that have invested heavily in ICT for education. Yet the promise that technology can meaningfully improve the quality of learning and by extension, its outcome is arguably as bright as it has ever been'.*

## **2.2 The use of mobile devices in formal educational contexts**

Mobile devices have brought with them a lot of promise, hope and optimism that they might be the appropriate and most ideal tool to revolutionise education. As a result, mobile devices have slowly and gradually crept into formal education contexts. Conversations surrounding the growing use of mobile devices in formal educational contexts have grown louder and with each new discourse arises an innovation for the use of mobile devices in the classroom. All over the world, mobile devices like tablets and smartphones have become commonplace in formal learning setups.

The next section of the study examines in depth the relationship which has developed between mobile device use and learning in mainstream education settings like primary schools, secondary schools, colleges and higher learning institutions. The implications that these relationships have on the development and love of reading in the lives of adolescent learners in Zimbabwe are also discussed.

### **2.2.1 Conceptualising mobile learning**

Mobile learning has come a long way since it first burst onto the scene some twenty years ago at the turn of the twenty-first century. The field of mobile learning is still rapidly developing. In other words, mobile learning is yet to come full circle as far as defining the concept is concerned. If anything, mobile learning is still very much at the crossroads as it is yet to be fully explored in terms of research and practice (Kukulaska-Hulme & Traxler 2013:245). This section examines how the concept of mobile learning has developed over the years from being a simple techno-centric notion into a complex and problematic phenomenon which many scholars have failed to agree on (Moura & Carvalho 2010:3).

Central to this discussion is the concept of mobility. The concept of mobility always seems to continually appear and reappear whenever conversations regarding a definition of mobile learning emerge. Also, the concept of mobility has strong implications on new reading practices afforded by MRDs to adolescent learners in Zimbabwe. Mobile reading is an off-shoot of mobile learning and as such, it is pertinent at this point in the study to locate mobile reading within the broader discourse of mobile learning.

The first approach towards coming up with a definition of mobile learning which applies to education is proposed by Laouris and Eteokleous (2005:2) who maintain that mobile learning should be expressed both systematically and systemically. A systematic definition of mobile learning entails the translation of the two terms 'mobile' and 'learning' in isolation and then conjugating the two to come up with a compounded description of mobile learning. A systemic explanation, on the other hand, would involve a consideration of the entire mobile learning ecosystem. A more comprehensive taxonomy of the definitions of mobile learning which attempts to outline the various perceptions which have informed mobile learning over the years is offered by Winters (2006:5). Winters asserts that mobile learning is increasingly becoming more challenging to characterise with each emerging perspective and that a definition of mobile learning needs to be reconceptualised. Winters identifies four broad categories under which mobile learning definitions fall. These four perspectives are: the techno-centric perspective, relationship to e-learning perspective, augmenting formal education perspective and learner-centred perspective (Winters 2006:6). These perspectives provide a theoretical basis upon which mobile learning practitioners continue to define mobile learning up to this day.

The *technology-centred explanations* of mobile learning are the most common and often simplistic conceptualisation of mobile learning emerging from the literature available on the subject. These definitions represent the earliest attempt at any form of description of mobile learning to arise at the turn of the twenty-first century. Technology-centred conceptions of mobile learning focus on the novelty of mobile devices in enhancing learning. Mobile devices are considered a novel innovation whose potential lies in the access to educational content they can provide. One classic example of a techno-centric definition of mobile learning appearing in literature is offered by Traxler (2005:262), who states that mobile learning is a situation in education where the technologies which are used, are held in the palm of learners' hands. The fiercest critics of this perspective contend its simplicity. They argue that mobile learning is a much more complicated process and

not just simply the collation of mobile and learning (Mehdipour & Zerehkafi 2013:93). The techno-centric definitions of mobile learning are very popular in the literature largely because the earliest known enterprises about mobile learning have been funded and driven by large technology-oriented corporations like Lenovo, Acer, Nokia and Ericson. By placing their technology (the mobile devices) right at the heart and centre of mobile learning, they have created a market opportunity for their technologies (Winters 2013:14).

Mobile learning should be seen *in relation to e-learning*. As Winters (2006:5) explains, this perspective views mobile learning as a mere appendage or sprout of e-learning. Mobile learning is considered a variation of e-learning placing mobile learning somewhere along the e-learning continuum of portability (Traxler 2005: 263). In other words, it qualifies as e-learning simply because it is learning underwritten by support from handheld technological devices that have wireless transmission capabilities (Hoppe, Joiner, Milrad & Sharples, 2003:255). According to Traxler (2005:263), the weakness of this perspective is that it remains too techno-centric, a view of mobile learning and viewing mobile learning in terms of e-learning distorts the true character of its defining features. Despite its flaws, this understanding of mobile learning has persisted over the years regardless of advances in mobile learning and mobile device technologies. Still, it is not largely recognised as a standalone discipline in education. In this respect, Mehdipour and Zerehkafi (2013: 93) opine that mobile learning has up to now indirectly meant mobile e-learning. Its growth has to be seen as the maintenance of established e-learning, a response to this established e-learning and the constraints and deficiencies that are associated with it.

Moreover, mobile learning has been viewed as *augmenting formal learning*. Winters (2013:6) posits that mobile learning can overcome the weaknesses of formal education. These weaknesses can be overcome by using mobile networks to enable marginalised learners access to educational content. Leite (2014 cited in Sonogo, Machado, Torrezzan and Behar 2016:29) defines mobile learning from this standpoint as occurring in situations where technologies can offer the student the means to build knowledge. Mobile devices can support formal education by aiding interaction between those involved in education. In other words, mobile learning helps create learning communities between teachers and learners (Sonogo et al 2016:29). The strongest argument in support of this perspective is that mobile learning complements formal learning and that, for the first time in the history

of education, those learners in previously hard-to-reach areas are now in a position of accessing education.

The last perspective according to Winters' (2006) taxonomy of mobile learning is the *learner-centred perspective*. According to this point of view, the focus of defining mobile learning should not be on the device or technology but rather on the mobility of the learner. The result is that mobile learning from this viewpoint has been regarded as any kind of learning that occurs when a learner is not in a specific, pre-arranged place of learning that occurs when the learner does not use the learning chances that mobile technologies have to offer (O'Malley, Vavoula, Glew, Taylor, Sharples & Lefrere 2005:10). In more recent times, mobile learning from this perspective has come to represent learners and learning being on the move, i.e., learning which occurs in between the different locations. It connects classroom learning with the world of work, home, playtime and other physical, material and non-material spaces while simultaneously embracing the learners' diverse cultural backgrounds (Kukulska-Hulme, Norris & Donohue 2015:7). The fundamental strength of this perspective is that it focuses and places the learner at the centre of the teaching-learning process and not the technology. Placing the learner at the centre of any teaching and learning process is one of the important hallmarks of quality in education. This standpoint, however, further complicates any attempts at characterising mobile learning as it introduces another idea, which is the concept of mobility in mobile learning.

The goal of this mobile reading study was to empower a group of Zimbabwean adolescent learners to take advantage of the numerous potential reading opportunities presented by their mobile phones. The learner-centred definitions of mobile learning united well with the aim of this empirical study as the researcher's actions were directed towards changing the participants' attitudes and perceptions towards transforming their mobile phones from being primarily communication tools into MRDs. Hence the study concerned itself with the spaces the adolescent participants occupied as they read (mobility of the learner), the sources and format of what they read (mobility of the content and their reading experiences); the kind of mobile devices they used to read and how they transformed them into becoming MRDs (mobility of the technology)

### **2.2.2 The tripartite nature of mobility in mobile learning**

It is clear from the foregoing discussion that mobile learning has evolved into a very complex phenomenon and this has not been made any easier considering the very dynamic



and ever-changing nature of technology and learning itself. Regardless of where one stands for defining mobile learning, it is evident that the concept of mobility has become a key dimension to understand the definition, nature and scope of mobile learning. Mobility in mobile learning is an essential defining attribute. The most ideal definition of mobile learning would be one that balances all three aspects of mobility in mobile learning (Traxler 2009:1). The concept of mobility in mobile learning can be unpacked in three directions. The tripartite nature of mobile learning includes the mobility of the device or technology, mobility of the learner and the mobility of the learning experience (Kukulskahulme et al 2015:7).

The role of technology in the mobility matrix is aptly explained by Traxler (2007:5) who explains that mobile devices are a profoundly fresh and innovative form of technology that combine the benefits of the internet and the convenience of portability and education to provide learning content at any time and in any place. The mobility of technology focuses on the physical and functional features of mobile devices and how they affect learning. It is the portability of mobile devices and their capacity to store and deliver vast amounts of information both online and offline which makes them desirable instruments for teaching and learning. Keegan (2005:3) best describes the portable characteristics of mobile devices as devices individuals are used to carrying with them every day. Furthermore, mobile devices are intimate, used in all dimensions of human interaction and a variety of social settings. Mobile technologies, because of their portability, are highly mobile and their functional features like cameras, voice recorders, video players and text readers provide learners with opportunities to consume, curate, generate and interact with different learning contexts while on the move (El-Hussein & Cronje 2010:17). The novelty of the physical features of mobile technologies has permitted learners to break free and transcend from traditional learning spaces like their classrooms and become untethered from their desks (Oller 2012:1).

The second notion of learner mobility in mobile learning arises from the assumption that learners in today's highly mobile society are continuously in motion or on the move (Sharples, Taylor & Vavoula 2005:1). This implies that today's learners are nomads who navigate the epistemological realms of the twenty-first century learning the right thing at the right time using mobile technologies. However, Sha, Looi, Chen and Zhang (2011:367) contend that it does not always follow that learners will engage in learning simply because they are on the move and they have a mobile device in hand. For mobile

learning to be effective, learners need to be behaviourally disposed (intrinsically motivated) and willing to learn the right thing at the right time. Mobile technologies are learner-centric as opposed to being pedagogically teacher-centric. This means that learners can still learn using mobile devices even if they are remotely located from their instructors. The whole essence of learner mobility is appropriately evaluated by Kukulska-Hulme, Norris and Donohue (2015:8) who conclude that learner mobility is a multifaceted notion that is an aggregation or combination of the ideas of the time and spaces where people can learn. Also, they include the vast range of familiar and unfamiliar learning situations people find themselves in and the factors which drive them to continue to engage in active learning especially outside the traditional learning contexts like the classroom.

The advent of mobile technologies in education has led to the creation of new educational spaces and learning environments. These new mobile learning environments afford learners unique learning experiences that traditional and institutional forms of learning cannot match.

Today's learners are also commonly referred to as generation X learners who spend most of their time in virtual spaces. Thus, Sharples, Sanchez, Milrad and Vavoula (2009:2) posit that effective mobile learning design links learners in both physical and cyber worlds, leading to the evolution of a community of learners amongst people on the move and while supporting lifelong learning at the same instance. The learning experiences created by mobile environments are situated, contingent, context-aware and authentic. Learning on mobile devices can take place in formal, conventional or traditional learning spaces such as the classroom, training room or lecture room and unconventional or informal learning contexts like on the bus, at home or during community-based learning all of which expand and broaden the learning experiences of the learner (GSMA 2014:4; Kukulska-Hulme et al 2015:13).

Finally, a definition of mobile learning needs to be dynamic. It should be a definition that is inclusive of all the different variations of mobility and responds to the ever-changing developments taking place in the world of mobile computing technologies and shifting learner preferences (Farley, Murphy & Rees 2013: 284). It is for this reason that this study subscribes to the notion that mobile learning combines many facets of mobility like the mobility of learners, mobility of connectivity and mobility of learning environments (GSMA 2014:4). This definition applies to this study. Further, there is evidence that as

adolescent learners engage in mobile reading activities, their actions become a function of these various facets of mobility.

### **2.2.3 Defining Mobile Learning Devices (MLD)**

Mobile devices like smartphones, tablets, convertibles and iPods were originally meant for communication and entertainment. These devices were not primarily designed for teaching and learning purposes. The role technology plays in teaching and learning can neither be overstated nor understated. Learning technologies serve as a means to an end. They are catalysts and their potential game-changing ability in education lies in the belief that they can be powerful tools to assist and enhance the quality of education. This belief is particularly strengthened by several features and capabilities learning technologies possess. Learning technologies facilitate access to profound and deep learning content, to the creation of more dynamic forms of instruction. They allow for more reliable assessments and provide more authentic links between classroom experiences and real the world (Barker, Dede & Evans 2014:10). If mobile devices are to be used successfully in teaching and learning contexts, then, pedagogical interventions and adjustments need to be made to make these devices true catalysts in fulfilling their educational worth and viability. After having attempted to define mobile learning, a few issues need to be addressed. For instance, at what point do ordinary smartphones or tablets transform into mobile learning devices?

Mobile devices have not only made a transformational impact on the educational landscape alone. Other sectors have been altered and impacted by the evolution of mobile technologies. The financial services sector, for example, has been redefined by the mobile money phenomenon. According to the GSMA (2019:12), Sub-Saharan Africa has the majority of mobile money connections compared to other global regions. In the health sector, mHealth platforms have been used to promote treatment compliance, data collection and disease surveillance. In Malawi for instance, one mHealth initiative called 'frontline SMS' afforded healthcare workers the ability to track HIV patients, medication adherence and access to proper drug dosage information (Adams 2012:8). While the foregoing examples are beyond the nature and scope of this study, it is evident that several mobile technologies are currently in use in education today. Mobile technologies such as smartphones, tablet computers and wireless touchscreen readers all need to be qualified as mobile learning devices. Otherwise, they remain to be merely worthless, hi-tech

ornaments and accessories in the hands of learners with no educational value whatsoever (UNESCO 2013:9).

The use of mobile devices in education today has led to the coining of terms like mobile learning devices or educational tablets (Walters 2014:15). The use of such terminology endeavours to legitimise and make relevant the use of mobile devices in both formal and non-formal teaching and learning contexts. Trucano (2015:4) poses a very pertinent question which he also attempts to answer. What makes a mobile device a learning device? Trucano goes on to outline some of the characteristics which qualify a mobile device to be classified as a mobile learning device. Mobile learning devices are (pre)loaded with specific educational software and content. They are equipped with an operating system specifically designed for students and the device is specifically labelled and marketed as educational. A typical case in point is that of the technology concern and mobile device manufacturer Intel who describes one of their products, aptly named Studybook tablet as custom-built for education. According to Intel, the Studybook is specifically designed for education because it combines education-specific hardware features and software applications with the portability and flexibility of a tablet (Intel 2012:1).

It is clear from the foregoing characterisation that not all mobile devices are designed and manufactured with learning and education in mind. Furthermore, the interface design of mobile learning devices should provide a backdrop or environment that is user-friendly, familiar and easy for the learners to navigate. The strength of Trucano's argument lies in its simplicity in that he is unambiguous about what a mobile learning device is or ought to be. While it might seem that one is arguing in reverse, rejecting a techno-centric definition, on the one hand, and then, recasting focus on the technology, on the other hand, is necessary. Placing this iconoclastic technology close to the learners or putting it directly into their hands without customising it for the purpose it was built for which is learning, is completely a waste of time because the technology alone will never produce the desired learning outcomes. It is apparent here that not all mobile computing devices are mobile learning devices. Therefore, an ideal mobile learning device should also be able to support reading and literacy development. For instance, the use of custom-made reading software applications should transfix young adolescent readers through their mobile learning devices into the realm of the fictional narrative. Thus, this will transform this make-believe world into an appendage of their daily existence just like the devices with which they are using to access it. So, this applied to this mobile reading study as the adolescent

participants needed to realise and appreciate the full power of the literacy development value offered by their MRDs.

#### **2.2.4 Why mobile devices in education?**

Mobile devices have captured the imagination of many people in education. Numerous mobile learning ventures have been undertaken all over the world in what can be described as the first full decade of mobile learning (2006-2016). The anticipation and excitement surrounding the disruptive nature and role of mobile devices in education have been profound and expectations that mobile devices will revolutionise education are very high. The simple yet complex question that begs to be asked is, however, the one which already headlines this section- Why mobiles? Does it seem that the desktop has already failed? This section examines the factors which have seen mobile devices and mobile learning gaining unprecedented prominence and popularity as the technology that will revolutionise and transform classroom practices.

Mobile devices have increasingly grown in popularity amongst populations from all across the globe. Traxler (2018:152) describes this phenomenon as 'the near-universal ownership of mobile devices', a factor that also accounts for the growing popularity of mobile devices in education. According to Lawrence, O'Reilly and McKee (2013:6), 52% of 8-15-year-olds in Britain have access to a smartphone or tablet. Livingstone (2012:15) conducted a survey in five countries on the mobile phone ownership and usage trends among young people. She discovered that 65% of the children she surveyed had used a mobile phone and that twelve was the most common age for children to own their first mobile phone. The high percentage of mobile device ownership especially amongst children in the developed world is a positive factor in leveraging the centrality of mobile learning in those countries. Universal mobile phone ownership is not unique to the developed world as some of Africa's most populous countries such as Nigeria, Egypt and Morocco are reported to have very high mobile phone ownership rates (Oluwatobi & Olurinola 2015:1). Mobile devices have become so popular amongst the population because they have exceeded their initial purpose of being a communication device to being a status symbol, an object of social inclusion, connectedness and fashion statement (North, Johnston, & Ophoff 2014:118).

The mobile learning discourse has gained prominence largely because of the influence of supranational organisations. Supranational organisations like UNESCO, USAID and the

European Commission have been very instrumental in pushing the mobile learning agenda onto the global education landscape. These organisations have been drivers for change by supporting, promoting and enabling discussion on mobile learning. These organisations have also gone a step further, testing potential and sometimes putting in place frameworks for mobile learning project start-ups (GSMA 2011:14). According to Traxler (2018:153), both UNESCO and USAID have hosted global symposiums to facilitate intellectual discourse and debate on international mobile learning trends and innovation. The USAID has launched the mEducation Alliance, an association where worldwide agencies and organisations cooperate, share and exchange notes and experiences on mobile learning projects and initiatives. The rationale behind supporting these mobile learning initiatives is to see how mobile devices can be used to educate the hard-to-reach populations in developing countries. For example, in South Africa, mobile learning has been promoted by an alliance between the Department of Education (DoE) and mobile phone manufacturer, Nokia. Together, the two championed the MoMath project in 2007. The project grew phenomenally within a space of just four years, from a mere 260 participants in the first phase to 25 000 learners in the third phase in 2011(UNESCO 2012:17). It is clear from the foregoing that supranational organisations are one of the driving forces behind the rising popularity of mobiles in education. In Zimbabwe, corporate organisations have also taken a lead in promoting mobile learning (See section 2.3.2).

Moreover, government initiatives and efforts have influenced the widespread adoption of mobile devices in education. The World Bank education technology blogger Michael Trucano (2015:4) notes that the use of mobile devices like tablets and smartphones in teaching and learning is the hallmark of a new trend in modernising education systems. Hence mobile devices have become popular in education largely because some politicians and governments believe that the large-scale distribution of mobile devices to schools can be a vehicle for advancing educational reform and modernising education systems. Many governments around the world today are announcing trials with tablets in schools. The observations of Clarke, Svanaes and Zimmerman (2013:69) in a survey to determine the global picture of the extent of use of mobile technologies in teaching and learning reveal that efforts are already being made to explore the academic gains these devices have for children in countries like France, Japan, Singapore and Australia. Baker, Bliss, Chung and Reynolds (2013:25) report that the Thailand government launched a one-tablet-per-child campaign to distribute one million tablets in schools during the 2012 election season. This

is the largest initiative in the world to date. In the United States of America, the federal school district in the State of Wisconsin procured iPads for its learners mainly because they are less expensive, easier to use and more portable than laptop computers (Huber 2012:20).

The Zimbabwean government is yet to embark on any such tablet distribution in its schools. However, the draft information communication technologies policy for primary and secondary schools strongly encourages the adoption and use of teaching methodologies that are driven and characterised by the use of modern technological devices like tablets, interactive whiteboards and liquid crystal display projectors (MoPSE 2016:5). The new national curriculum framework adopted in Zimbabwe at the beginning of 2017 also encourages teachers to be innovative and resourceful in their adoption and use of teaching and learning technologies in the classroom.

The widespread availability of handheld devices coupled with the willingness and readiness of corporate organisations and global agencies to set up and promote the agenda for mobile learning and the intervention of various governments around the world have all given impetus and drive for the growth and popularity of mobile learning across the globe. Despite all this growth in mobile learning, the extensive presence of mobile learning devices in schools does not seem to have translated into improved learner performance (Clarke & Svanaes 2015:7). The sceptics feel that the leading role played by supranational organisations and corporate bodies in promoting the mobile learning agenda has compromised and distorted the role of the educator and researcher by advancing the profit motive rather than forwarding the pedagogical agenda. Nevertheless, it is also abundantly clear that mobile devices and mobile learning have grown in popularity as the world has increasingly become mobile. The popularity of mobile devices among the adolescent population and the mobility of the adolescent population today weigh heavily upon their reading practices and behaviours. Presently, adolescent learners seem to occupy and spend most of their time moving in between virtual spaces facilitated by their mobile devices. Hence adding virtual reading spaces to the virtual lives of adolescent learners may be one strategy to influence positive reading behaviours and practices amongst them.

### **2.2.5 Redefining and reconfiguring knowledge in the age of the mobile device**

New digital technologies in the twenty-first century like the internet, telecommunication networks, mobile devices, artificial intelligence, virtual and augmented realities and

cloud-based computing have led to a paradigm shift in terms of how knowledge is packaged, distributed and consumed. In recent years, the world has witnessed a shift from an industrial-based to a knowledge-based society. This has led to a knowledge paradigm where knowledge creation is fast becoming the key productive factor of value (UNESCO 2012:11). Thus, knowledge has become fluid and dynamic in response to the demands of the new information economy being driven by information communication technologies like mobile devices. Knowledge today has become a far cry from the proverbial time-honoured truths of years gone by. The very nature of knowledge is changing today. These new technologies have led to an explosion and eruption of knowledge and this has given rise to new epistemological questions. As a result, there is a need to redefine and re-examine the meaning of valid and worthwhile knowledge considering the developments taking place in the mobile learning era.

Mobile devices have steered a shift in the patterns of ownership of knowledge. Mobile devices and other connected technologies have led to the de-institutionalisation of knowledge (Bates 2015:59; UNESCO 2005:63). New technologies like mobile devices are altering the traditional monopoly which educational institutions have had on knowledge since time immemorial. According to UNESCO (2012:32), mobile technologies have brought diversity to the traditional approach of bringing learners to institutions to imbibe knowledge. Digital technologies like the internet have made possible the distribution of knowledge across networks of connections. All individuals need to tap into this vast knowledge base is to simply plug in using their mobile devices (Downes 2007 cited in Bates 2015:57). The core role of the teacher has changed in the information economy. Teachers are no longer fountains of knowledge or transmitters of knowledge but rather facilitators of learning. As facilitators of learning, the role of teachers today is to guide learners on how to access, analyse and evaluate information from the vast knowledge repositories offered by digital technologies like smartphones and tablets (UNESCO 2012:34). This implies that today's learners are no longer merely just knowledge consumers but also active participants in the knowledge creation and generation process giving rise to notions like user-generated content. This sentiment is aptly captured by Lawrence, O'Reilly and McKee (2013:6) when they posit that mobile devices are the ideal knowledge generation and creation tools in today's world. No longer are mobile devices just for consuming knowledge but rather have morphed and transformed into a tool that supports knowledge generation activities like documentation,



editing and creativity. This helps to promote the development and acquisition of twenty-first-century skills like independent and active learning, critical thinking amongst the learners. Mobile devices and other digital technologies have also transformed the way knowledge is represented today (Bates 2015:58). From the Socratic method of dialogue and oral representation of knowledge to the invention of the printing press which made the book popular as a carrier of knowledge for centuries, it is clear that the electronic mode is the new medium for the storage, transmission and retrieval of knowledge in the twenty-first century. The invention of the book made the renaissance and age of enlightenment a reality largely because books made knowledge portable and accessible to many. Mobile devices, on the other hand, have made knowledge ubiquitous and expanded the speed and range by which these representations of knowledge can be transmitted and accessed enormously. These digital devices are most likely going to drive the success of the fourth industrial revolution (Peng, Su, Chou & Tsai 2009:181). Today, mobile devices are gradually replacing the hegemonic influence of the book which has for a long time been the symbol of knowledge circulation both inside and outside educational institutions. As a result, mobile devices as the new media and carriers of knowledge, are shaping education in their image (Traxler 2009:8). UNESCO (2005:64) concludes that new technologies like smartphones and tablets have ascribed new attributes to knowledge. Knowledge is now personalised, ubiquitous, fluid, interactive, integrated and fragmented.

The new technological dispensation has also been accused of trivialising knowledge especially through fragmenting it. Mobile devices present learning content in bite-sized-chunks through their small screens. As a result, this personalisation and individualisation of knowledge risk fragmenting society by alienating learners into their unique information worlds (Traxler 2009:9). For Bates, (2015:59) the new age has led to another depressing scenario which is the commercialisation and commodification of knowledge. The emphasis today is on the utility of knowledge for commercial purposes and not knowledge for knowledge's sake. In a critical review of twenty-first-century knowledge frameworks, Kereluik, Mishra, Fahnoe and Terry (2013:133) conclude that the knowledge race of the twenty-first century has left the world in a conundrum where nothing has changed and yet everything has changed. This means that academic knowledge in the digital age in terms of values and its goals does not change, however, what changes is the ways knowledge is applied and represented (Bates 2015:61; Kereluik et al 2013:133).

The mobile era has introduced novel forms of representing knowledge that adolescent learners in Zimbabwe can access both inside and outside the classroom. How these new media impact the knowledge acquisition and reading behaviours of adolescent learners in Zimbabwe becomes pertinent. Therefore, it becomes imperative to strike a balance so that the adolescent learners can tread the thin line which exists between the new medium of knowledge transmission and the goals of the school-based knowledge and skills they are expected to acquire. As the Zimbabwean education system attempts to find its footing amongst the global knowledge society of today's world, its adolescent learners also need to be allowed to construct narratives of their own digitally based knowledge-seeking experiences facilitated through mobile device-enabled reading initiatives.

### **2.2.6 Mobile devices and quality in education**

In 2016, the world's countries adopted a 15-year international development agenda known as the Sustainable Development Goals (SDGs). Key to this agenda is the role of education in promoting a comprehensive and equitable quality education and lifelong learning for all. It is behind this background that UNESCO in 2016 headlined its mobile learning week (7-11 March 2016) under the theme 'Innovating for quality'. The major goal of this gathering was to shed more light based on research findings and practice narratives, how mobile devices could be leveraged to provide and assure high-quality learning for all human beings now and beyond the future (UNESCO 2015:2). Further, UNESCO contends that mobile devices are well-positioned to provide all learners with opportunities to access quality education. This section of the study critically reflects on the popular rhetoric that mobile devices enhance the quality of learning by re-examining the notion of quality in education and evaluating how available literature reports findings on the subject and what this means for the quality of mobile reading experiences amongst a group of Zimbabwean adolescent learners.

The concept of quality in education is a very abstract and value-laden notion. The concept of quality in education is elusive and it is frequently used but never defined. The concept seems to elicit multiple meanings depending on one's ideological, social and political inclinations (Jian & Prasad 2017:10). In a review of the concept of quality in education, Machingura, Magudu, Maravanyika, Moyo and Musengi (2012:65) conclude that the most popular definitions and uses of educational quality appear in literature measure the quality of education against a set of predetermined quality indicators. Some of these indicators include access to basic educational services, performance, a good school environment,

quality classroom interactions facilitated by qualified teachers and broad-based and diverse curricula (Machingura et al 2012:66). In the same vein, Tichagwa (2012:39) describes a good school environment as one that has adequate reading and learning materials available for learners, the availability of qualified teachers and where the safety and security of learners are guaranteed.

Quality in education has also been defined from an economic point of view. The economic perspective to defining quality in education is largely concerned with the efficient and effective allocation of educational resources to realise the achievement of learning outcomes at a reasonable cost (Barrat et al 2006: iii). The economic approach to defining quality in education posits that the idea of quality education denotes the cost-efficient production of academic achievement expressed through a high completion rate with minimal repetition at the primary level (Bracho-Gonzalez 2018:14). In today's consumer-driven economy, quality in education has also been described using the precepts of the Total Quality Management (TQM) philosophy of quality inputs undergoing quality processes to produce quality outputs. In teaching and learning contexts, quality implies inputs, that is, availability of qualified and experienced teachers, access to learning materials and course books, processes, which means, adequate time is allocated for teaching and learning and nature of instructional methods. Then, outputs refer to summative evaluations, internal and external examination results and completion and university entry rates, pass rates, school rankings while outcomes imply successful integration of school leavers into industry and commerce (Chapman & Adams 2002:2). All three of the foregoing approaches to defining the notion of quality in education are important to this study as each approach complements the others and mobile devices also seem to draw their quality-enhancing attributes from all perspectives and not just a single viewpoint.

Some studies have been carried out in educational contexts within both the developed and developing world focusing on mobile devices and how they affect the quality of schooling. In a study conducted in an early childhood teaching and learning setting, Khoo, Merry, Nguyen, Bennett and McMillan (2015:2) discovered that the use of iPads in an early childhood development class in Australia improved the quality of teacher's talk as they interacted with learners thereby serving as a useful model for children in group learning. In Malaysia, Ibrahim, Yussof and Kamarudin (2016:555) examined the impact of a mobile e-learning system on the quality indicators of academic performance and attendance rates

of 41 learners at a primary school in Malaysia. The descriptive study which used a pre-test and post-test design reported an increase in student academic achievement, school attendance rates and discipline. Another quality dimension reported to have improved when attributed to the impact of the mobile e-learning system is the school's state level and country-level rankings which leapfrogged from 4173 out of 7617 in 2009 to 749 out of a total of 7674 schools in 2011 (Ibrahim, Yussof & Kamarudin 2016:558). Also, Wilkinson and Barter (2015:2) studied the quality indicators of academic achievement, attendance and progression in a higher education context using iPads in the United Kingdom. They reported a positive effect on all three dimensions and concluded that mobile devices like tablets increase and enhance the range and worth of educational experiences learners encounter within the classroom. Mobile devices also complemented and supported traditional instructional methods very well.

A study conducted in two Nigerian universities, Shonola, Joy, Oyelere and Suhonen (2016: 43) concluded that the use of mobile devices like tablets in teaching and learning improved the quality of learning encounters as it significantly facilitated quick and easy access to the latest learning materials, resources and services. Valk, Rashid and Elder (2010:117) examined proof of how mobile phones contributed to the achievement of quality educational objectives in six less economically developed Asian countries. The pilot projects took place in the Philippines, Mongolia, Thailand, India and Bangladesh. The study isolated two quality dimensions associated with the use of mobile phones. The first dimension focused on how mobiles contributed to improving access to education and second, how mobile devices contributed to quality education by promoting new learning. The study found that mobile devices facilitated increased access to educational resources and services while little evidence was found to back how mobile devices promoted and supported alternative forms of learning. This is contrary to UNESCO's (2015:6) assertion that placing powerful mobile technologies in the hands of learners will help enable new types of learning.

The concept of quality in Zimbabwe's education system has received a fair amount of attention from both the government and academics at institutions of higher education. However, a need for information exists in research findings based on mobile devices and the quality of schooling in Zimbabwe. In 2014, Gröhbiel and Pimmer piloted what is probably Zimbabwe's first mobile learning study in secondary schools in rural Zimbabwe. In a preliminary evaluation of the study, the potential of mobile devices in enhancing the

quality of the low pass rate in 45 schools in the Mpumelelo district in rural Zimbabwe was emphasised (Gröhbiel & Pimmer 2014:1). While the quality of education in Zimbabwe has been generally adjudged as providing learners with excellent opportunities to access it, there are however some barriers that impede the provision of quality education in Zimbabwe (Machingura et al 2012:74). Such barriers vary from school to school and studies conducted in independent colleges in Zimbabwe (a similar setting in which this study will be conducted) identified barriers like lack of adequate reading and learning materials, poor funding and poor safety conditions (Mudzimba, Chokera & Ngwenya 2014:80; Tichagwa 2012:39). UNESCO (2015:5-6) is nonetheless, optimistic that mobile devices can be used to improve the quality of education in many ways. For instance, some barriers to quality education faced by impoverished schools like independent colleges in Zimbabwe can be overcome by the adoption of mobile devices to access reading and learning materials. Other quality dimensions in which mobile devices can play a pivotal role in Zimbabwe include the implementation and use of an Education Management Information System (EMIS).

Others believe that technology in general and mobile devices, in particular, bear false hope and promise as far as enhancing the quality of schooling is concerned (Oppenheimer 2004:302). Further, Oppenheimer contends the education sector has been sold a dummy by commercial technology entities who have kept educators in a perpetual state of hypnosis distracting them with technological novelties since the 1920s so much that the essentials of learning have been gradually forgotten and that these essentials of learning matter much more than these novelties of technology. Toyama (2011:1) posits that technology is not a shortcut to quality education. Instead, schools should focus on internal indicators of quality education like better teachers and strong administrators. Technology has had a history of failure in education. This is largely because there is a repetitive cycle that technology in education goes through. The cycle includes the following stages: hype, investment, poor integration and lack of educational outcomes (Toyama 2011:5). Thus, according to the critics, mobile devices just like other technological novelties before them are bound to fail because they have already begun to reinitiate the cycle with the current hype around them likely to die down once a failure to invest and integrate the technology into education becomes apparent.

Finally, mobile devices have an inherent quality appeal embedded within them. They lend themselves as improving some indicators of quality schooling better than others. Mobile

devices, because of their universal ownership, inevitably increase the possibility of access to reading and learning materials to many learners who previously lacked access to these resources. Adolescent learners in Zimbabwe will also have an opportunity to convert their mobile devices into reading repositories as they access reading materials from across the globe in a school-based mobile reading initiative.

### **2.2.7 The African response to the use of mobile devices in education**

Following the seemingly successful debut of mobile devices onto the education scene in the developed world, it seems imperative and appropriate now to evaluate Africa's response to mobile devices in education. The African response to mobile devices in education has at best been described by Traxler (2018:154) as swinging between two conflicting extremes. One response views mobiles as instruments of reform and improvement. This school of thought holds that mobile technologies are allowing African ministries of education, schools and universities to enhance the management, content and delivery of their educational curricular. The second and contradictory school of thought holds that mobile technologies are instruments of radical and dramatic social, political and economic change set to disrupt the hegemony of the conventional education system.

The Southern African response to the use of mobile technologies in education seems by far the most positive. South Africa has been the most successful country in terms of innovation as far as mobile learning initiatives are concerned. To date, it has pioneered some of the most ground-breaking and most fruitful mobile learning interventions documented in the literature. O'Hagan (2013:56) describes South Africa as a mobile society. O'Hagan outlines numerous mobile learning endeavours that have placed South Africa on the mobile learning map. South Africa's mobile learning success is largely attributed to the development of 'Mxit,' an instant messaging service available to 3000 different types of phones including low-cost feature phones. The response to 'Mxit' was overwhelming and as a result, the platform played host to several mobile educational initiatives developed in South Africa. 'Dr Maths', 'Quizmax' and 'Siyavula' are all examples of mobile learning interventions that made use of the social networking platform 'Mxit' to reach over 30 000, 120 000 and 150 000 learners respectively (O'Hagan 2013:57). Indeed, these figures are a very encouraging response to mobile learning.

Mobile devices in education in Africa are viewed by some as the panacea to cure learners' negative perceptions and motivation towards subjects traditionally conceived to be

difficult. These include STEM (Science Technology Engineering and Mathematics) subjects like Science and Mathematics. In a study conducted in Namibia, Kachepa and Jere (2014:6) report with a great sense of optimism that mobile learning applications can be used to improve learner performance in traditionally difficult subjects like Science and Mathematics. The study notes a positive reception or reaction by both urban learners and teachers to mobile learning. As a result, educators should take advantage of the popularity of mobile phones amongst learners. Kachepa and Jere (2014:7) see mobile games-based applications that have mathematical concepts embedded in them as a viable option in overcoming effective issues in the learning of Mathematics. In South Africa, The Nokia Mobile Mathematics project designed by Nokia and the South African department of education reported a 14% performance improvement rate in Mathematics in its pilot phase in 2010.

Africa is a linguistically diverse and rich continent and mobile learning applications are seen as a viable option for delivering linguistically and culturally relevant content to learners in Africa. One such response is articulated by Jantjies and Joy (2014:308) who developed a multi-lingual Mathematics learning application to support multi-lingual learners in the Western Cape Province in South Africa. The application called 'M-Thuto' is bilingual delivers learning content in both English, the language of teaching and learning and Setswana, an indigenous language spoken in certain areas in South Africa and also one of the official languages. The study reported that 61% of the learners viewed the Mathematics application in both English and Setswana. In the rural schools included in the study, the rate was as high as 98%. This application was more useful to learners in the rural areas because they often interact in the home language or mother tongue with the language of teaching and learning, which is English, often being a barrier to the understanding of vital concepts in subjects like Mathematics and Science. This study highlights the immense role indigenous mobile learning applications can have in enhancing performance and access to learning content not only in the teaching of Mathematics but reading as well. It is evident from the foregoing that learning applications in learners' home languages can break linguistic barriers which often scuttle the academic attainment rates of African learners who are often taught a subject using their second or third language.

Also, mobile devices in education evoke a great sense of optimism as mobile technologies are seen as providing possible answers to some of the perennial problems bedeviling

education on the African continent. These issues relate to access, affordability and under-resourcing in terms of both human and material resources (Baker, Bliss, Chung & Reynolds 2013:22; Grimus, Ebner & Holzinger 2014:1; Mteba & Raisamo 2014:4). Baker et al (2013:22) argue that in East African countries like Tanzania, mobile learning will enlarge access to education for all while leapfrogging some developmental phases often encountered in educating previously un-served and underserved populations. In a study conducted in West Africa in Ghana, Grimus et al (2014:1) propose a mobile learning concept which seeks to address the problems of demand for education, lack of teachers and poorly qualified teaching staff. In this concept, the first step is to integrate teachers in the development of a pedagogical mobile learning model for effective content delivery. In Nigeria, mobile devices and mobile learning applications are seen as offering a recent paradigm shift that challenges the hegemonic influence of traditional forms or modes of education delivery. The feeling is that mobile learning can be used to repackage education to make it affordable to the poor (Oluwatobi & Olurinola 2015:1).

While in theory, the response to mobiles in education has been ecstatic and euphoric. In practice, the response has been somewhat lukewarm, slow and subdued. The literature reviewed in the preceding paragraphs tells of the success of narratives of mobile learning efforts in Africa, mainly from pilot studies and or donor-funded initiatives. Grimus et al (2014:5) are fairly sceptical about the sustainability of current mobile learning initiatives which seem to be adopting a piecemeal approach to the large-scale implementation of mobile learning in the primary and secondary sectors of education in African countries. Winters (2013a:3) asserts that African teachers have been failed by mobile learning. Further, Winters argues that the greatest failing of mobile learning in Africa is the exclusion of African teachers from the whole mobile learning matrix. Despite its novelty as a technological innovation set to revolutionise education, the voices of teachers are conspicuous by their absence from discourses on mobile learning which eulogise the virtues of such innovations. It is evident from Winters' sentiments that a dichotomy in terms of theory and the practise of mobile learning exists in Africa.

Different stakeholders perceive mobile learning in Africa differently. African teachers are conservative and their response to the use of mobile devices in education can be described as negative at best. Mobile devices are viewed as disrupting learning and the response in most African schools has been universal bans to the use of mobile devices in schools. According to World Bank blogger, Michael Trucano (2015:2), Uganda and Nigeria



responded to mobile devices in education by effecting bans on mobile phones in schools in 2012 and 2013 respectively. Porter, Hampshire, Milner, Munthali, Robson, De Lannoy, Bango, Gunguluza, Mashiri, Tanle and Abane (2016:27), in a transnational study conducted in Malawi, Ghana and South Africa, noted the absence of government formulated policy on mobile learning to guide and direct teachers' and learners' practices with mobile devices within the classroom. However, the general trend ensuing from this study was that teachers were privileged to use mobile devices at their own expense and initiative to prepare for lessons and to deliver up-to-date content in class. For learners, mobile device use is strictly regulated after school and in such cases, they play a complementary role to formal schooling.

The African response towards the acceptance, adoption and application of mobile devices like tablets and smartphones within her formal instructional institutions, particularly in the primary and secondary education sector, is far from being systematic. However, mobile learning remains a fundamental perception as it lays the foundation for mobile reading to take root in schools. As the case and calls for mobile learning grow stronger and louder in Africa so too does the case for mobile reading as the two notions share a causal and mutually symbiotic relationship.

### **2.3 Mobile reading devices in informal learning contexts**

Learning takes not only place in a classroom setup. It can also take place in multiple sites and contexts like on the bus, at home, on the playground and any time. Mobile reading devices because of their omnipresence in these multiple informal learning contexts present numerous opportunities for people to engage in reading. Aptly, Sharples et al (2002: 220) capture this sentiment when they assert that a natural alliance exists between learning and mobile devices which makes it possible to equip learners with powerful tools to support reading anytime and anywhere. This section of the study unpacks informal learning and critically examines the role mobile devices can play in promoting reading in multiple informal learning contexts. Also, informal learning relates to reading books or informal texts on MRDs.

#### **2.3.1 The versatile nature of informal learning**

Informal learning is versatile and dynamic. It is described by Mette (2006:4) as learning which takes place outside the classroom. Zelezny-Green (2014:9) defines informal learning more comprehensively as:

*"...learning that takes place outside of a country's formal system of education. It is an educational activity that is not organised with set goals and timelines that are followed and can be self-led or directed in partnership with others. Family, friends, work colleagues and even strangers are the people usually linked to informal learning."*

While Zelenzy-Green provides an ideal and semantically precise definition of informal learning, it is important at this juncture to further articulate its other defining attributes which make it responsive to mobile learning. Informal learning happens everywhere and can be intentional or unintentional and incidental (Rogoff, Callanan, Gutiérrez & Erickson 2016:358). Informal learning is disorganised, unstructured, guided by learner interests and does not usually lead to the award of a recognised qualification. It can be explicit or tacit and informal learners use whatever techniques and resources that suit their learning needs (Clough, Jones, McAndrew & Scanlon 2009:99). Informal learning takes place without a teacher and a learner being assessed (Jones 2015:5). It occurs every day in people's lives as they attempt to navigate the daily practical challenges that life throws at them. Mobile reading devices have also become an important extension of people's everyday lives, always on hand to promote and support informal reading for users upon demand and on the go.

### **2.3.2 How mobile devices could promote informal learning and reading**

The research literature available advances numerous findings on how mobile devices could promote and support informal learning and reading. According to UNESCO (2012:32), mobile devices have a track record of maximising informal learning opportunities. The affordability of mobile devices and their near-ubiquitous access afford both the young and old people who have previously been at risk of being excluded from national education systems the chance to access affordable high-quality learning experiences (Grimus et al 2014:2). The immediacy of access to information offered by mobile devices makes it possible to extend and create new and continuing opportunities for reading and informal learning. Wagner, Castillo, Murphy, Crofton and Zahra (2014:10) found that MRDs encouraged learners in developing countries to practise reading in informal settings through access to a wide range of digital reading materials. Furthermore, this immediate access to information eliminates the need to seek out books and subject matter experts. Consequently, mobile devices open up new channels for learning and reading without necessarily closing existing ones. In Africa, this is a greatly advantageous scenario as individuals no longer need to disrupt their economic activities

because of the desire or need to attend school. Individuals can continue to earn and learn informally via mobile devices and other forms of technology.

Besides, mobile devices support informal learning and reading by providing a wider spectrum of opportunities beyond the classroom for young learners involved in the formal schooling system (Khaddage, Muller & Flintoff 2016:18). Mobile devices provide a link that connects the gap between classroom learning and learning outside the classroom. They have transformed how people learn by enabling and producing numerous opportunities for acquiring and developing new kinds of capabilities and offering innovative, refreshing and unique ways of learning old-school knowledge and skills in a broad range of settings. In studies conducted in secondary schools in Kenya, Zelenzy-Green (2014:19) and South Africa, Ghana and Malawi, Porter et al (2016:27) note that imposing embargoes and sanctions on mobile phone use during school hours restricted the use of mobile devices for learning and reading purposes by learners to after school hours only. Malkin-Page and Wassermann (2019:109) aptly state that "the enormous potential for learning present within most learners' pockets even within the classroom: the cell phone" is, thus, ignored.

The overall effect of the in-class ban on the use of mobile devices in these countries has seen an increase in informal learning as learners use their mobile devices to extend the range of learning experiences acquired in class via mobile. Zelenzy-Green reports that the introduction of low-cost mobile applications like biNu fulfilled a great after-school need and desire for Kenyan learners which is access to books after school. The restrictions placed on the use of MRDs in schools closed up ideal opportunities for learners to develop their literacy through reading on their MRDs.

Today mobile devices have led the transition from learning rooms to learning spaces (Hysten 2015:10). Learning rooms, in this sense, imply that learning takes place in a finite place with limited resources and learning experiences. Learning spaces, on the other hand, are open and learners create and generate their learning pathways. In a survey of several online communities, Clough et al (2009:106) observed that mobile device users created their learning paths through various activities on mobile like audio-visual data collection, note-taking, information retrieval, interaction and collaboration. In a study conducted in rural Zimbabwe by Zvavahera and Chigora (2018:93), it was found that learners normally use mobile phones at home to do their homework, play games and upload soft copies of

textbooks to support their academic reading. Indeed, mobiles have created new and virtual learning spaces like social networking applications and the mobile learning cloud, where learners can meet, collaborate and explore a world far beyond their physical localities. As a result, the distinction between formal and informal learning is fast becoming blurred. There is an urgent need for schools to reinvent themselves and open up to these new forms of learning in a highly mobilised dispensation (Khaddage et al 2016:18). Schools need to open up and take full advantage of innovations to the maximum benefit of learners.

However, research on informal learning via mobile is still very scanty due to several reasons. Some reasons are probably inherent like informal learning itself. Many challenges are noted when attempting to research informal learning. Firstly, it is problematic to capture informal learning as most of it occurs when the learner is not even aware that it is occurring (Vavoula 2004 cited in Clough et al 2009:101). Furthermore, the absence of any forms of assessment and performance indicators makes it difficult to monitor informal learning (Zelenzy-Green 2014:13). Since informal learning takes place outside school and institutional settings, it might be difficult to assemble groups of participants large enough to create truly representative population samples (Clough et al 2009:101; Khaddage et al 2016:18). Other scholars believe that subjecting informal learning activities to any form of rigorous study undervalues the very act of informal learning as this moves it up the continuum of formality (Jones, Issroff, Scanlon, Clough, McAndrew & Blake 2006:4).

Be that as it may, mobile devices through their multimedia capabilities also seem to afford both learners and researchers immense opportunities to capture and document informal learning and reading incidents. In an action research study, Chen (2013: 26) empowered the ten participants of his study to take control of their informal language learning experiences using tablets. Chen was able to observe the group of participants and collected data concerning their informal learning experiences through the various mobile platforms created by the participants like micro-blogs and micro-messaging amongst other more traditional procedures of data collection. The design of Chen's study was dualistic, allowing both data collection on informal learning and informal learning to proceed simultaneously. In the final analysis, Chen established that tablet PCs and other mobile technologies were effective to promote learner independence and pervasive learning in informal settings (Chen 2013:29).

It is clear from the foregoing evidence that there is an important need to systematically create for Zimbabwean adolescent learners learning and reading experiences that extend beyond the confines of the school classroom. After-school learning and reading experiences are equally important as in-class learning activities for the adolescent learner. Furthermore, it is clear that in today's mobile age, the classroom is just the starting point for the multiplicity of learning contexts that learners can find themselves in. It is, therefore, the opinion of the researcher that Zimbabwean adolescent learners need to be educated on how they can consciously move back and forth between learning rooms and learning spaces on their mobile devices and in the process creating their unique learning and reading experiences. Hopefully, experiences will help them transform into lifelong readers.

#### **2.4 From mobile learning to mobile-assisted language learning (MALL)**

The use of mobile devices in education has given rise to an overlapping or cross-field of research and practice in language learning, which is known as Mobile Assisted Language Learning (MALL) (Stockwell and Hubbard 2013:5). The underlying philosophy behind MALL is the belief that mobile devices share a unique relationship with language learning and that mobile devices can be used as tools for the rapid advancement of the macro language skills of speaking, listening, writing and reading in both formal and informal contexts. MALL has generated a lot of interest amongst researchers and language teaching practitioners. This has led to the steady growth and emergence of a substantial body of research and literature on how mobile devices can be used to enhance the teaching and learning of language skills. This section of the study provides a bridge that transitions the overlap between how mobile devices can be used in education in general to how mobile devices can be used, more specifically, to mediate language development. An analysis of MALL could facilitate the creation of an ideal framework through which conversations surrounding mobile device use in the development of reading literacy and the formation of a sustained reading culture amongst a group of adolescent learners in Zimbabwe can be evaluated.

##### **2.4.1 Mobile assisted language learning (MALL)**

For over a century, the language teaching fraternity has concerned itself with the search for the ideal or best method for teaching and learning a second or foreign language. MALL presents with it optimism amid despair for the future of language learning (Chaka 2009:542). MALL comes at a time when researchers and practitioners in language

teaching were feeling disillusioned with the different methods of language teaching and learning. Colpaert (2004) and Beatty (2003 cited in Abusa'aleek 2014:469) describe mobile devices as having led to the creation of a new field of inquiry known as Mobile Assisted Language Learning (MALL). Kukulska-Hulme and Shield (2008:) identify one goal of research in MALL as developing and increasing an understanding among teachers about the various instructional resources and techniques available at their disposal, which they can employ when teaching with mobile devices to ensure efficient and effective language learning within and beyond their classroom environments. While acknowledging the immense possibilities, mobile devices have in- changing language teaching and learning practices. Kukulska-Hume (2009:163) hastens to note that mobile devices can easily conjure up emotions of euphoria amongst researchers, thus cautions against research and activities which could lead to a superficial understanding of the role of mobile devices in language education.

The origins of the idea of Mobile Assisted Language Learning can be attributed or credited to Chinnery who first used the term in 2006 to describe the innovative use and application of handheld mobile devices in language teaching and learning (Kim & Kwon 2012:34; Saidouni & Bahloul 2016:125). Often, MALL is described as an offshoot and a subdivision of mobile learning and Computer Assisted Language Learning (CALL) (Stockwell & Hubbard 2013:2; Yang 2013:19). The concept of MALL just like mobile learning is yet to develop a semantically precise definition, as it is still a young and burgeoning field of inquiry and study. The available literature on MALL has largely been defined from a techno-centric point of view (AbuSa'aleek 2014: 469; Khubayari & Narafshan 2016:59; Miangah & Nezarat 2012:309). One such techno-centric definition of MALL is echoed and captured in the words of Chen (2013:21), who believes that MALL involves learning a language through conventional and unconventional means via the aid of mobile devices.

However, Kukulska-Hulme et al (2015:5) contest the techno centric view of defining MALL by asserting that the 'mobile' in MALL should not be limited or treated as being only synonymous to mobile phones. Rather, MALL should embody language learners and the process of language learning itself as being mobile. This means that mobile devices through their characteristic features connect language learners to spaces and places where language can be learnt authentically (Kukulska-Hume et al 2015:8). The emphasis here is placed on learner-mobility and the mobility of various language learning contexts. This

study follows Kukulska-Hulme et al's (2015) definition of MALL because of its broad and open understanding of the concept of MALL.

Nevertheless, the role of mobile devices as technological tools that support and promote language learning cannot be downplayed at all. These devices are very instrumental in the mobile learning discourse as they have given rise to the dichotomy which now exists between static and mobile pedagogies in education today. There is a consensus amongst MALL research literature that the multimedia features, form and characteristics of mobile devices make it ideal for these technologies for mediating the development and acquisition of linguistic skills amongst language learners (Joseph & Uther 2009:28; Miangah & Nezarat 2013:310; Valarmathi 2011:2). It is further noted in the literature that mobile devices can support language acquisition.

Through mobile devices, learners gain opportunities to create and negotiate meaning and engage with comprehensible linguistic input and output. For instance, learners can use mobile devices to create and share digital texts, communicate via email, micro-messaging and voice calls and reflect on their performance in the target language while simultaneously assessing their language learning needs (Kukulska-Hulme et al 2015:7; Park & Slater 2014:94). Besides, mobile devices help language learners to access and experience the target language in authentic communicative situations which are culturally and linguistically relevant anytime and anywhere (Joseph & Uther 2009:28; Kim & Kwon 2011: 35; Palalas 2011:71). In addition, mobile devices afford language learners the opportunities to practise and use their newly-acquired linguistic skills, reinforcing and gaining these skills permanently (AbuSa'aleek 2014: 470).

## **2.5 Mobile devices and the development of language skills**

This section of the study discusses the available literature which describes how mobile devices have been used in MALL to support the development of three of the four macro language skills which are speaking, listening and writing. The development of the skill of reading is deliberately left out here as it is the subject of both intense and extensive examination in the succeeding chapter. It is, however, pertinent to note that the four macro-language skills are interrelated and dependent upon each other. Thus, it is befitting now to briefly analyse some trends, theories and practices emanating from the MALL discourse. These bear the study whose central focus is on mobile devices and the

development of a sustained reading culture amongst a group of adolescent learners in Zimbabwe. Thus, the study relates to the domain of MALL.

### **2.5.1 MALL and speaking**

Most mobile devices can support the development and improvement of learners' speaking skills because of the audio capabilities of mobile devices. Through mobile devices, learners can practise speaking by recording their conversations in the target language. In Zimbabwe, for instance, adolescent learners whose mother tongue is not English have limited exposure to native speakers of the English language. However, mobile devices can afford these learners an opportunity to practise aspects of speaking such as conversational skills and pronunciation by imitating pre-recorded podcasts of comprehensible linguistic input produced by a native speaker of the target language (Kanchana & Saha 2015:10). Miangah and Nezarat (2012:314) describe the qualities of a good MALL service as comprising a speech facility that enables the transmission of voice between the learner and device and vice versa. Thus, mobile devices can provide authentic and genuine communicative circumstances for learners to engage, refine and hone their speaking skills within classroom discourses and conversations beyond the classroom.

Besides, mobile devices are endowed with applications that promote the development of speaking skills amongst learners. In a study aimed at investigating how mobile applications can be integrated to enhance English language teaching and learning, Zou and Li (2015:566) found that 70% of the participants in their study used mobile applications for developing their speaking skills. The respondents stated that they found the applications particularly useful for improving pronunciation. In an analysis of the methodological make-up of a selection of mobile speaking applications, Kim and Kwon (2012:50) note that the mobile applications under review only focused on the development of bottom-level speaking skills like pronunciation which are confined mostly to the phoneme level. While the language teaching strategies used on these applications vary from question and answer, model practice, audio-video tutorials and animated simulations, concerns are raised at the lack of practice opportunities for contextualised and authentic conversational exchanges between and amongst learners.

### **2.5.2 MALL and listening**

Mobile devices possess the unique capacity to carry and store samples of conversations, genuine language artefacts and carefully created learning material combined with the



dynamic and custom-made features of mobile devices. They enable learners' vast opportunities to engage in listening while walking or travelling (Demouy & Kukulska-Hulme 2010:217). In an investigation of a group of Chinese English language learners' real-world tasks in MALL, Park and Slater (2014:105) discovered that the main real-world listening tasks undertaken by the participants in the target second language according to rank were listening to music, watching the drama, listening to English speakers on the phone, watching the news, listening to radio or podcasts and watching class lectures. Besides, Palalas (2011:80) studied the relationship between MALL and aural skills development among a group of interdisciplinary ESL learners in a Canadian University. In this study, the respondents felt that mobile devices offered them ample opportunity, for example, to practice listening to subject-specific vocabulary. However, the respondents often felt isolated during these listening sessions and required the support of peers and subject tutors to overcome some listening difficulties.

It is clear from the foregoing discussion that the various listening activities made possible by and through mobile devices create enough comprehensible linguistic input for language acquisition and learning amongst learners. Just like reading listening is a receptive skill and its development must be given due pedagogical attention like any other language skill. Therefore, the role of a mobile device is to help the learners by continually bombarding them with listening input in the target language that is comprehensible and just above their comprehension level (Joseph & Uther 2009:12). In terms of methodology and course design, MALL listening activities and tasks are still largely informed by the audio-lingual method.

### **2.5.3 MALL and writing**

The most important feature that aids writing which comes embedded in technological devices is the word processor. Motteram (2016:184) contends that quite early after the publication of the influential process model to writing by Flower and Hayes (1981), a flurry of research appeared on how the computer could be used in the writing classroom. Today smart mobile devices come with smart keypads fixed into them. These keypads come along with text predictor functions, spelling correction options and thesauri, all of which are important tools in the process of writing. As a result, mobile devices enable the production of text anytime, anywhere and for real-world communicative purposes. The word processor has, thus, developed together with technology over the years from being

a simple tool used to create and produce text into a technical cultural artefact that allows learners to grow substantial linguistic skills.

Also, mobile devices and writing applications have facilitated the creation of new writing platforms and channels, which often help reluctant second language learners engage in writing more frequently. In a study involving the use of an iPad tablet and writing application called Penultimate, Chen, Cager and Smith (2017:36) discovered that mobile devices and writing applications provide second language learners with a motivating and effective way to improve their writing ability when compared to handwritten texts. Microblogging and micro-texting platforms are also other examples of web 2.0 tools that mediate the development of writing skills amongst second language learners (Kanchana & Saha 2015:11). Yang (2013:21) defines a microblog or a mobile blog as a web blog that is limited to 140 characters per post but is enriched by social networking facilities. Further, Yang posits the educational value of microblogs lies in that they encourage learners to take part in cross-cultural communications effectively. Also, learners actively practice writing in the target language on microblogging and messaging sites like twitter. Microblogs can afford language learners an opportunity to share their thoughts and stories anytime and anywhere (Chen 2013:26).

## **2.6 Towards the use of mobile devices and mobile learning in Zimbabwe's education sector**

Zimbabwe as a nation has had its unique response to mobile devices in education. This section of the study is a comprehensive overview of the emerging trends in the use and application of ICTs and mobile devices within Zimbabwe's education sector. The Zimbabwean journey towards mobile device use in education starts to unfold with the efforts towards the mass computerisation of schools and by connecting them to the internet. The role that the government and private entities are playing in the promotion of mobile device use for educational purposes in and outside the classroom is also unpacked. Finally, developments within both the primary and secondary education sectors are examined.

### **2.6.1 Contextualising the history of Information Communication Technologies (ICTs) in Zimbabwean schools**

The history of mobile device use in Zimbabwean schools can only be sketched within the broader context of the history of the development of ICTs in Zimbabwe's education sector.

Zimbabwe is a country adopting educational technologies late and like most developing countries, she does not boast of having a concise history of the use of mobile devices in schools. This critical examination of the history behind mobile device use in Zimbabwean schools reveals that the journey has been long neither had it been smooth nor has it been linear and regular in any way. The road ahead is still very bumpy. The history of ICTs and more specifically that of mobile technologies in Zimbabwe's schools has undoubtedly been shaped by some socio-political and historical developments taking place since the year 1999. It is within the framework of this context that the history of ICTs in Zimbabwe's school system has been analysed.

In 1999, a Commission of Enquiry into Education and Training (CEIET) was launched in Zimbabwe to investigate the relevance of the country's education and training curriculum. One of the observations made by the commission on the eve of the third millennium was that the new dispensation would be knowledge-driven and that electronic technological devices would play a leading and pivotal role in all facets of life in this dawning information era. The commission, thus, recommended that the state should transform and update the national curriculum framework to match these technological changes of the coming age. The government was advised to ensure that schools were equipped and ready to impart knowledge and develop new skills that were relevant and aligned to the demands of the twenty-first century which was beckoning on the horizon (CEIET report 1999:26).

In response to the above findings and recommendations, the government of Zimbabwe launched the Presidential schools' computerisation programme in the year 2000. The programme aimed to equip all schools in Zimbabwe with computer hardware to enhance learning (Musiyakanda, Ranga & Kiwa 2013:1). The programme saw at least one hundred mainly rural schools receiving ten computers each together with peripheral equipment like printers. The MoPSE reported that this programme equipped 25% of schools in the country with computers and printers (MoPSE 2016:13). Incidentally, the year 2000 was a general election year and 2002 was a presidential election year in Zimbabwe and some cynics dismissed the programme as a mere political campaign gimmick. Nevertheless, this gesture kick-started a drive to revolutionise and modernise Zimbabwe's education system and in the process, the seeds for mobile learning were sown. Further to this, the MoPSE through circular number 3 of 2002 emphasised the importance of computer studies across the entire school curriculum. This message aimed to complement and ensure the success of the Presidential schools' computerisation programme. This circular became the

government's official policy position on computers in education and this meant that computer studies and literacy skills became compulsory in all schools for all learners (Bukalyia & Mubika 2011:414).

Several evaluative studies on the Presidential schools' computerisation programme report on the positive impact of the programme. The studies also report on the challenges faced by schools in implementing computers in education policy. One of the more visible and perhaps immediate impacts of the programme was the exponential increase in the number of computers in schools. In a study of five rural schools in Chipinge district in Zimbabwe, Konyana and Konyana (2013:3) observed that before the inception of the Presidential schools' computerisation programme, the five schools had a total of nine computers between them, which were used solely for administrative purposes. The donation of computers to two schools in the study saw the number rise to twenty-nine. In a similar study of five schools in Makoni district, Mandoga, Matswetu and Mhishi (2013:109) discovered that most of the computers being used in the schools were donated through the Presidential schools' computerisation programme. Many challenges have also militated against the successful implementation of the pedagogical use of ICTs in Zimbabwe's education system. The factors included poor ICT infrastructure in schools, a high computer to learner ratio (1:40), some of the schools were not electrified and a low level of ICT competence amongst teachers. Other factors include lack of internet connectivity and high-security costs that were discovered to be impeding the successful implementation of the Presidential schools' computerisation programme (Bukalyia & Mubika 2011:417; Mangwaya & Mangwaya 2016: 630; Musiyandaka et al 2013:3). In most cases, the computers were reported to be lying idle due to inadequate preparation at the school level to implement the policy. In some extreme cases, the computers remained boxed more than five years after being donated because of staff and learner apathy and some of the recipient schools had no electricity (Konyana & Konyana 2013:7; Musiyandaka et al 2013:5).

The nine years between 2002 and 2011 were relatively dormant as far as the progress of computerising schools was concerned probably because Zimbabwe was faced with an economic recession of catastrophic proportions. On the 29th of March 2012, the government of Zimbabwe once again re-launched the national school's computerisation programme with an extra dimension known as the Presidential e-learning programme. Like before, the goal of the national schools programme was to provide computer hardware equipment to mostly disadvantaged schools. The thrust of the Presidential e-

learning programme, on the other hand, was to ensure internet connectivity and the availability of digital learning content for the schools to strengthen the use of ICTs for teaching and learning. (MoPSE 2016:13). Based on lessons learnt from the previous endeavour, this particular project was to be rolled out in four distinct phases. During the first phase, all schools involved would receive forty desktop computers to equip their computer labs and school ICT infrastructure, which is ideal for secondary schools (MoPSE 2019:10). The schools would also have the correct internet infrastructure for connectivity. This meant that teachers and learners could access learning content online. Phase two would involve the creation and provision of locally relevant digital content. In phase three, teachers, learners and administrative staff would be capacitated with the requisite ICT skills and competencies to ensure that the donated resources were used effectively and efficiently. Finally, phase four would entail the adoption of an e-examination management system, which would see the migration of the whole entire examination system from being manual to an electronic or online system.

In 2013, another presidential election year saw the launch of the Connect a School Connect a Community initiative. This programme was yet another presidential initiative whose stated goal was to invest in the latest information technology equipment and infrastructure and place it in technologically-marginalised or impoverished schools. The aim was to reduce the digital divide between rural and urban schools and the communities by extension by allowing members of the surrounding communities to use the school ICT infrastructure to upgrade their digital literacy skills (MoPSE 2016:13). Kabanda (2013:451) posits that the national schools computerisation programme, the presidential e-learning programme and [most probably] subsequent government initiatives have successfully provided an ideal conduit for the uptake, dispersal and rise in popularity of mobile e-learning in Zimbabwean schools. Access to information and knowledge for the learners has become limitless. Geography is no longer an obstacle or barrier. The contention is that teachers and learners need to take on the initiative themselves to adopt mobile learning so that it becomes a common and prominent feature both inside and outside the Zimbabwean classroom. Another development that has made conditions ripe for the complete and accelerated adoption of mobile learning in Zimbabwe's schools is the phenomenal growth of mobile density in Zimbabwe (Kabanda 2013:447).

Zimbabwe has historically been a late adopter in terms of technology in education. While Zimbabwe is still grappling with e-learning, the world has already moved on to mobile

learning. However, the technological backbone in Zimbabwe's education system is not yet well established and ready for the widespread and extensive uptake of mobile learning in Zimbabwe. Currently, mobile learning initiatives are being adopted haphazardly across the education sector in Zimbabwe, with the private sector pulling in one direction and the government still paying lip service concerning this aspect of learning. There is, however, a need for a systematic all stakeholder approach to ensure that mobile learning and mobile reading take off on a large scale in Zimbabwe. It is also clear that there is a strong political will in Zimbabwe driving the implementation and use of ICTs in education. However, it seems no large-scale implementation of technological innovation in education in Zimbabwe will take place without direction and blessing from the highest political office in the land.

### **2.6.2 Mobile learning in Zimbabwe's Primary and Secondary schools: The case of 'Ruzivo Smart Learning'**

This section outlines the effort of one ICT-based privately owned company in Zimbabwe in promoting mobile device use and mobile learning in Zimbabwe.

On the 3<sup>rd</sup> of February 2016, Zimbabwe's largest telecommunications service provider (in terms of subscribers) Econet Wireless announced the launch of *Ruzivo Smart Learning*, an interactive digital learning platform (Gatsi 2017:Z10). 'Ruzivo' is a Shona word which when translated to English means knowledge. Therefore, Ruzivo implies a digital knowledge repository that learners can consult to quench their thirst for academic knowledge in today's knowledge and information-driven milieu. The case of Ruzivo is unique because it is probably Zimbabwe's first home-grown large-scale digital learning intervention which attempts to take advantage of the ubiquity, portability and convenience of mobile devices for learning in both government-operated schools and independently-run private schools. One goal of Ruzivo is to complement the government's efforts in providing educational resources to help improve the national pass rate. The initial marketing model for Ruzivo was premised on the idea of taking advantage of Econet's huge subscriber base by persuading parents to register on the platform on behalf of their school-going children. Once registered, learners would be able to access zero-rated content on the platform via their or shared mobile devices.

According to Econet, Ruzivo is an online learning portal designed for primary and secondary school learners. The portal houses locally developed digital educational

material and learning resources which include interactive lessons, self-paced learning exercises and assessment tests that can be used at school or home. The learning content is aligned to the Zimbabwean national curricula. Upon its inception in February 2016, Ruzivo's digital content repository catered for primary grades 4, 5, 6 and 7 in the subjects English, Mathematics and Science. The content has reportedly been endorsed by the Curriculum Development Unit (CDU), the Ministry of Primary and Secondary education's standards bearer as far as the quality of instructional content is concerned. Learners can access the platform from any device with internet capabilities. Ruzivo, like most mobile learning initiatives, promotes ubiquitous learning as the platform can be accessed both online and offline, at home and school. Through Ruzivo, Econet has successfully created a knowledge fountain that allows learners to access locally relevant academic content (Gatsi 2017:Z10).

However, Ruzivo as a mobile learning innovation has had to contend with several obstacles typical of policies associated with the use of mobile devices in education. In Zimbabwe, mobile devices are completely outlawed in primary school and as a result, it becomes difficult to access the Ruzivo learning platform during school hours. To counter this, Econet has partnered with some schools to provide mobile devices as tablets for use during computer lessons. Unfortunately, this means that learners probably get to use the technology for a few minutes a week, thus, the technology is never fully integrated into the classroom. Gambanja (2015:1) also contends that not all school-going children in Zimbabwe own a mobile device, a scenario that militates against the stated objectives of the Ruzivo smart learning initiative.

*Pachikoro* (Shona for 'at school'), an online magazine dedicated to educational issues in Zimbabwe, notes some pedagogical flaws often consistent with commercially designed educational applications like the Ruzivo smart learning platform (Pachikoro 2016:1). Gambanja (2015:1) cautions against commercially oriented mobile learning initiatives when he posits that the profit motive behind such endeavours only leads to half-baked educational solutions. According to Pachikoro, the platform has a poor user interface and the practice exercises only give raw test scores and do not provide feedback as to correct or incorrect responses for each test item. Lastly, the range of subjects offered on the platform is still limited and indigenous subjects like Shona and Ndebele need to be included on the platform.

Nevertheless, Ruzivo is representative and indicative of positive steps in the most appropriate direction for mobile learning in a slow technology adopting country like Zimbabwe (Gambanga 2015:1). It is clear, however, that the creators and administrators of Ruzivo can make some improvements to its system. Ruzivo is yet to be empirically evaluated as a learning platform to ensure adherence to best pedagogical practices (Mukabeta, Tunjera & Magomelo 2013:5). In addition, the right partnerships need to be forged when developing such mobile learning applications. For instance, a design team made up of a mix of instructional design professionals, computer software engineers and artists will greatly improve and increase the pedagogical, technical and aesthetic worth of the platform. The team could also consider devolving the platform into a mobile application that can be downloaded once-off from the different application stores for greater affordability and ease of access in instances of poor connectivity. Ruzivo is probably the more visible and perhaps well-documented mobile learning initiative in Zimbabwe to date but this does not mean that there are not any other such initiatives taking place at a micro level within private schools in Zimbabwe. Lessons learnt so far from the Ruzivo mobile learning initiative are priceless. The precedent set by Ruzivo should enable the successful implementation of future mobile device centred education programmes in Zimbabwe if the government so chooses to actively pursue the use of mobile to deliver the new 2015-2022 National Curriculum Framework for Primary and Secondary schools, which is being implemented in schools with effect from January 2017.

Mobile learning in Zimbabwe's Primary and Secondary education sector is still largely in the hands of private players. The government, as the major stakeholder in education, is in the process of crafting an ICT policy for Primary and Secondary education in Zimbabwe. It is from this ICT policy that a policy on mobile learning should be fashioned. The slow pace at which the policy seems to be progressing continues to militate against the development of mobile learning in Zimbabwean schools. The bureaucratic red tape has often been cited as the number one factor hindering mobile learning in Zimbabwe.

### **2.6.3 A critical overview of the ICT policy for Primary and Secondary education in Zimbabwe - Implications for mobile device use in Zimbabwean schools**

The year 2017 was a historic year for education in Zimbabwe. At the start of 2017, the MoPSE began to overhaul the education system by implementing and adopting an updated National Curriculum Framework for Primary and Secondary education. The rationale behind this educational reform is to equip all learners in Zimbabwe with functional skills



that are responsive and relevant to the socio-economic and political demands of the twenty-first century. MoPSE views digital technologies as one of the mediums through which this curriculum reform can be supported and successfully implemented (Kong, Chan, Huang & Cheah 2014:189). It is considering this thinking that in October 2019, MoPSE launched an ICT policy for Primary and Secondary schools in Zimbabwe (Dzinotyiweyi & Taddese 2020:7). This section of the study critically interrogates the new policy examining the opportunities and threats this policy presents for mobile device use and mobile reading amongst learners in Zimbabwe's schools.

The launch of an ICT policy in education in Zimbabwe is a welcome development as Zimbabwe was, according to UNESCO (2012:11), probably among the only remaining three countries out of fifty-four in Africa without a specific policy dedicated to the use of ICTs in education. The Education Sector Strategic Plan (ESSP) of 2016-2020 and the new National Curriculum Framework for Primary and Secondary education (2015-2022) identify ICTs as one key aspect of focus where a policy gap existed (MoPSE 2016:3). Nevertheless, Zimbabwe's ICT policy in education seems to come at an ideal time as mobile technologies have already become firmly rooted in the lives of learners in Zimbabwe. This implies that mobile devices and mobile reading by extension as emerging and evolving forms of ICTs are accommodated in the policy, unlike most countries that developed and adopted their policies in the pre-mobile era.

Zimbabwe's ICT policy in education, just like other ICTs in education policies from all over Africa, seeks to close the digital divide and increase digital dividends within and across the whole education sector in Zimbabwe (Mohamad & Woollard 2012:1). The policy posits growth and equal universal access to ICTs to all learners, teachers and administrative staff in the ministry of Primary and Secondary education. The Ministry intends to achieve this by establishing in every school in Zimbabwe reliable ICT technical infrastructure. While the Ministry of education clearly articulates its will to ensure that every school in Zimbabwe has internet connectivity, this might be an insurmountable task as there are 5 933 primary schools and 2 718 secondary schools in Zimbabwe (MoPSE 2016:13). Such an endeavour requires financing which may be unavailable at times. According to e-Transform Africa (2011:9), the governments of Uganda and Senegal promulgated ICT in education policies in 2003 and 2009, respectively. Despite creating an enabling environment that promotes the integration of ICTs in education in the two African countries, these policies have had very little impact on the ground because the

governments cannot afford to fund the large scale implementation of these policies without donor or private sector support. The draft policy, nevertheless, enables and opens up opportunities for mobile learning and mobile technologies to be wholly adopted in Zimbabwean schools as these can be used even in areas that do not necessarily have the requisite technical infrastructure for broadband internet (UNESCO 2012:19).

Furthermore, the policy is intentionally broad allowing communities and individual schools the freedom to be creative and innovative when it comes to implementation of the policy. Mobile learning can offer cheap, localised, creative solutions for the successful implementation of the policy (Parsons 2014:182). The universal availability of mobile technologies amongst learners in Zimbabwe can help to drastically reduce the currently high ratio of learners to functional computers in schools. The current national ratio of learners to functional computers stands at 1:167 for primary schools and 1:40 for secondary school. The draft policy further acknowledges that today's learners are an online population (MoPSE 2016:13).

While the draft policy does not explicitly make reference to or define mobile learning, however, it spells out its goal for promoting e-learning in Zimbabwean schools. Unless mobile learning is defined as an extension of e-learning, the policy is limited in scope as it confines ICTs in education to tethered classroom devices like desktops and interactive whiteboards. The policy acknowledges that today's learners are an online population. The policy does, however, define a broad spectrum of ICTs including mobile devices, tablets and in classroom technologies. It can, thus, be inferred that the policy treats mobile learning as an appendage of e-learning. The few references made to mobile devices and tablets in the policy are sufficient to provide ample and enabling space for the integration of mobile technologies in Zimbabwe's schools. The GSMA (2014:10-12) recommends that a mobile learning policy should be clearly articulated to avoid an unstructured and haphazard adoption of the innovation. The Zimbabwean Ministry of Primary and Secondary education, therefore, needs to clarify its stance on mobile learning to avoid misinterpretation of the policy.

The launch of the policy on ICTs in education in Zimbabwe will open up the traditionally conservative sector to a whole new array of creativity and disruptive innovation. If the policy creates and provides for a functional and sound mobile learning environment, then, by extension, mobile reading amongst adolescent learners is bound to flourish. This is

unlikely to take place overnight, not in an automatic manner as there needs to be strategic intervention on the part of policymakers. Such strategic interventions include teacher capacitation so that they are equipped with adequate knowledge on best practices in mobile learning and the creation of a locally relevant and digitally based mobile learning curriculum through which the skill of reading can be developed and nurtured.

This mobile reading study sought to comprehensively investigate MRDs and mobile reading practices undertaken by the adolescent participants of the study. It was hoped that insights and understandings gained through this empirical study would eventually help make recommendations that could help in crafting mobile learning and mobile reading policy guidelines, which can be incorporated into the ICT in education policy in Zimbabwe.

## **2.7 Conclusion**

In this chapter, it was discussed that the future of mobile devices in education in Africa in general and Zimbabwe in particular, seems very promising. However, the successful implementation of mobile devices in education in African countries can only be assured through success stories on the innovative use of mobile devices in various learning contexts. This chapter has extensively reviewed literature based on findings on the use of mobile devices in both formal and informal contexts. Firstly, an outline of the historical developments surrounding mobile device use has been conducted. The meaning of mobile learning is examined and an account of the growth and popularity of mobile devices amongst adolescent learners. The literature reviewed included an in-depth analysis of MALL as one of the latest developments in language education. The African response to mobile devices in education was gauged with special attention being paid to mobile device use in Zimbabwean schools and the implications this has on mobile reading amongst a group of the adolescent learner being examined. The impact of mobile devices in informal learning was also assessed. The next chapter focuses on how the trends and developments in mobile learning described in this chapter have set a precedent and antecedents for mobile reading amongst a group of Zimbabwean adolescent learners both inside and outside of school which was the focus of this study.

## **CHAPTER 3: READING AND THE USE OF MOBILE GADGETS AS READING DEVICES**

### **3 Introduction**

The chapter aims to review the body of research literature which exists on how Mobile Reading Devices (MRDs) contribute to the development and enhancement of literacy skills amongst adolescent learners. This literature survey offers a cursory appraisal of some of the key discourses arising in the fields of reading and technology today. The notions of reading, reading in secondary school, adolescent reading habits, mobile reading research trends, mobile reading applications and mobile reading in Zimbabwe are examined. Consequently, the chapter is divided into thematic categories identified in the foregoing statement. This chapter also discusses Bronfenbrenner's bioecological systems theory, Wigfield and Guthrie's reader engagement model and Turner and Hick's connected reader model to establish an ideal theoretical framework within which the connection between mobile reading devices and the reading habits of adolescent readers at an independent College in Zimbabwe were examined. The chapter closes with an assessment of the literacy skills development opportunities afforded by mobile reading devices and the arguments against using mobile reading devices as reading media or platforms.

### **3.1 Reading**

Reading is a very important skill especially for learners in secondary school. It is the gateway to knowledge across all subjects in the secondary school curriculum. Given the critical role reading plays in the academic development of a group of Zimbabwean adolescent learners, this section of the literature review critically interrogates the notions of reading, reading acquisition with specific reference to Zimbabwe, approaches to reading instruction and reading motivation. The relationship between reading and technology is also examined in this section.

#### **3.1.1 Defining reading**

Defining reading is as complex as the reading process itself. It is an ambiguous notion that has elicited numerous interpretations among researchers and practitioners. Reading can be construed as an act, a skill or a process depending on the researcher's or practitioner's perspective. Despite many definitions of reading available in the literature, two common views of reading always emerge that it is a process of code breaking (deciphering the alphabetic code) and meaning-making or getting (Weaver 2002:1, Commonwealth of

Australia 2005:89). Some definitions focus on reading as an exclusive code-breaking process while other views see reading solely as a process of meaning-making or getting (Grabe & Stroller 2002:23). The more comprehensive definitions acknowledge reading like a combination of both processes and integrate the two. Regardless of how one describes reading, one's understanding of the concept will most certainly influence the approach one adopts in teaching reading.

As far back as 1995, Goodman viewed the act of reading as a psycholinguistic course of progression which begins through a linguistic surface representation predetermined by a writer, which a reader interprets and ends up assigning meaning depending on how they decode the pre-set linguist symbols (1995:18). Goodman's seminal ideas on reading are still very applicable today as he laid the foundation for more contemporary conceptualisations of reading. A more or less similar tradition is upheld by Wagner, Piasta & Torgensen (2006:1112-1113) who assert that:

*'Reading refers to understanding a message from a writer. Doing so requires decoding the script the message has been written in. ... the task for the beginning reader is one of connecting between the orthographic representations or marks on the printed page or computer screen and the morphological and phonological representations that correspond, respectively to the meanings and pronunciations of words that beginning readers already carry around in their heads'.*

Wagner et al (2006) rightly capture the very essence of reading in their description of the notion of reading. Ideally, their view of reading highlights reading as meaning-making processes supported by the capability to break the alphabetic code. The definition also acknowledges the role of new reading media like the computer screen in reading literacy development. Nevertheless, Wagner et al seem to imply that reading is a notion confined to and commonly practised by the beginning reader who is devoid of any personal, intellectual and emotional disposition towards the text they are reading. Moreover, reading is a lifelong skill which once acquired, is practised throughout one's life and not at the beginning reading phase only.

This study adopts a broader and a more wide-ranging view of reading proposed by Kamil, Pearson, Moje and Afflerbach (2011: xxii). This is an opinion which attempts to explain the ambiguities associated to read as a skill, an act and a process. This is an interpretation that accounts for the multiplicity of human-related factors that contribute to successful reading acts. Last, it is a view that also considers the varied and changing nature of texts

to include technologically-powered reading platforms. Kamil et al (2011:xxii) describe reading as:

*"...a response to print, processing of information and a set of strategies and skills that yield meaning. Reading also involves motivation, self-concept and prior experiences that can reinforce or diminish the reading experience. Reading is situated, an endlessly varied phenomenon involving individual readers of a unique experience, involving texts and tasks that vary in terms of goals, difficulty and time."*

It is evident from the above definition that reading is a complex and multifaceted notion. Thus, the twenty-first-century reading practitioner needs to approach the notion with an open mind so that they can best develop strategies and approaches that support best reading practices amongst adolescent learners today. Needless to say, technology has a hegemonic influence on the lives of today's adolescent readers, therefore, their emotional and cognitive dispositions to read and their identities as readers are being shaped by the proliferation of new and existing reading technologies. As a result, the texts readers read and the idea of reading itself has not remained static since Goodman (1995) but rather, are becoming more dynamic in response to the ever-changing demands and forces society throws at them.

### **3.1.2 Reading acquisition with reference to Zimbabwe**

The road to reading acquisition can be long and arduous for some learners whilst others it is smooth sailing. Despite the differential rates at which learner's reading skills are developed, reading acquisition literature is clear on the road learners need to travel to acquire and learn the essential skill to become proficient readers. This section unpacks how the skill of reading is acquired.

Coltheart (2005a; cited in the Australian Commonwealth 2005:89) describes reading acquisition as the attainment of a group of specific cognitive skills that a learner needs to become a skilful reader. These specific sets of reading skills are very essential or core foundational skills key to the successful attainment of reading proficiency. Coltheart identifies four of these core foundational reading skills namely Alphabet character identification, phoneme-sounding procedures, entire word recognition and meaning-making. USAID, (2014:4) and Save the Children (2014:2) recognise five essential building blocks of reading acquisition which are the alphabetic principle, phonemic awareness, oral reading fluency, vocabulary and comprehension. However, Reid (2011:56) outlines eight fundamental elements necessary for reading acquisition. These

are recognition of all the sounds in the alphabet recognition of all the letters in the alphabet, knowledge that individual letters and groups of letters make the sounds in words and the need to be able to blend words to make sounds and words; the need to develop sight words so that words can be read automatically; the need to be able to break new words down into smaller units; the need to be able to understand the words in text; and eventually, the need to be able to ‘read between the lines’ and understand the inferences the author is making (inferential reading).

Reading acquisition like most human developmental processes is a complex process and does not progress in a neat, logical or sequential manner as implied by the information above (Kamil et al 2011:xxii). Moreover, reading acquisition is not spontaneous and it is learnt in most cases (Reid 2011:56). Ehri (cited in Ehri 2015:300) identifies four developmental phases of reading acquisition learners pass through on their journey to becoming skilful readers. These are pre-alphabetic, partial alphabetic, full alphabetic, and consolidated alphabetic phases.

The Pre-alphabetic stage (pre-literacy) according to Ehri is the first stage of reading development and is characterised by the learner reader repeatedly flipping through pages and imitating to read books they have heard being read before. In this phase they are only reciting what they have memorized and they are not yet able to make out letter sound connection to read words. In the partial alphabetic phase (emergent literacy), learners begin to recognise overall word patterns and can remember how to read words. In the full alphabetic phase (learning to read) the beginner reader is able to make comprehensive connections between graphemes in spellings and phonemes in pronunciations. In the consolidated alphabetic phase (reading to learn), readers have acquired the ability to read multisyllabic words and familiarise with complex letter patterns recurring in words. Joubert (2013:107) refers to reading readiness which some educators and researchers believe to be important. She states that the behaviourist view or bottom up view regards a reading readiness programme as a prerequisite that has to be completed before learners start to read. Learners have to learn specific skills such as building puzzles, completing riddles, letter recognition and a variety of perceptual skills. According to the psycholinguistic view or top down view learners have to be exposed to a variety of reading materials, learners should become aware of the world of written texts and a reading culture should be nourished by letting young learners handle books (Joubert

2013:107) (See section 3.2.3 for a discussion on the bottom up and top down approaches to the teaching of reading).

N’Nambi (2005:15) posits that oral expression and the development of a sight vocabulary should be the focus of instruction during this phase. The goal in this initial stage of reading development is to motivate and adequately prepare the apprentice reader to transition smoothly into the second stage. In stage two, the alphabetic stage, an early reader is expected to tackle sound and symbol relationships (Reid 2011:59). This means that learners must be able to recognise letters of the alphabet without memorising them and identify words they cannot pronounce and independently learn to how to pronounce them (N’Nambi 2005:18). Once a reader has mastered the skills described in these two stages, they can be said to have attained the basic mechanics of reading which are accuracy and expressive fluency (Pearson 2009: 4) (See section 3.2.3 for the bottom-up approach to the teaching of reading). In other words, reading starts to become automatic. In today’s knowledge economy which is driven by information communication technologies (ICTs) this alone is not enough, learners need to be able to read a wide range of texts on various subjects with understanding. The ultimate goal of the reading development process is to develop the higher order cognitive skill of comprehension and this is epitomised in the fourth and last stage of reading development which is the consolidated alphabetic phase.

Reading with comprehension is not an easily attainable goal. Some individuals will reach adulthood without being able to read with comprehension (See section 3.2.3 for discussion on the top-down approach to the teaching of reading). It is normally expected that learners who enter secondary school have attained automaticity and this will allow them to easily read with comprehension which is the domain of the consolidated alphabetic stage. In the secondary school learners also have to be able to read well and with comprehension in order for them to be successful academically. Unfortunately this is not the case as the researcher has noted through experience as a teacher at a secondary school that most learners who come to secondary school have not mastered the basic mechanics of reading characteristic of the alphabetic stages of reading development continuum.

Reading research conducted in Zimbabwe has categorised this mismatch between reading skills attained and school-going age as the reading gap or literacy achievement gap (Muchemwa, 2014:193; Nkoma, Mapfumo & Mashavira, 2013:1). Numerous factors have been recognised in the research literature as leading to the reading gap in Zimbabwe.



Studies conducted in both urban and rural Zimbabwe have discovered several factors, which contribute to the literacy achievement gap amongst learners in Zimbabwe. These factors include poor reading instruction at the early grade level, inadequate early grade reading texts, poor reading support from the home and overcrowding in early grade reading classes, which militate against individualised attention by teachers (Muchemwa 2014:197; Muranda, Tshabalala, Ncube & Khosa 2015:401).

In an investigation on the examination of comprehension skills at ordinary level in Zimbabwe, Gonye, Mareva, Sibanda and Dudu (2008:140) found that the full and proper development of reading comprehension skills in secondary schools in Zimbabwe is being hampered by an over-emphasis on teaching literal skills at the expense of other comprehension skills. In a mixed methods study on the reading proficiency development of form 2 learners in secondary schools in Bulawayo (Zimbabwe's second-largest city), Gumede and Boakye (2020: 84) found that form 2 learners attending public schools in the city had a literacy achievement gap four years below their expected grade level. This reading achievement gap was attributed to the learning disruptions the group of learners encountered during their early grade years. The conditioning of adolescent learners to develop one set of comprehension skills while neglecting other comprehension skills like inferential skills, lexical skills and grammatical skills militates against the goal of this study, which is to empower adolescent learners to use technologically handheld devices to develop into lifelong readers.

The Ministry of Primary and Secondary Education in Zimbabwe in 2015 undertook the process of reviewing and overhauling the country's education curricular. Then, these changes were implemented in January 2017. Amongst the vast array of educational innovations implemented was an early reading intervention programme (ERI) (Thondhlana & Thondhlana 2018:605). This intervention is a learning catch-up programme that equips all primary school teachers in Zimbabwe with enhanced teaching skills in early reading (UNICEF 2014:14). The rationale of the early reading intervention is to identify, remediate and close the reading and performance achievement gaps as early as possible in the learning journey of the individual learner.

Reading acquisition is a cognitively delicate process and that any disruption to the smooth flow of this process can grossly affect a learner's mastery of reading. It is also clear that the school has a critical role to play in ensuring that all learners acquire sufficient reading

skills by the time they leave primary school if they are to succeed in their later academic lives. It is further apparent that those learners who gain full reading comprehension often read more and continue to develop their reading abilities to advanced levels while those that gain no reading prowess will avoid reading at all costs and risk regressing to a state of being illiterate.

### **3.1.3 Bottom-up and Top-down approaches to teaching reading**

The acquisition of reading skills does not proceed automatically for most individuals as noted in section 3.2.2 above; reading has to be taught deliberately in formal instructional contexts. Some traditions on how reading should be and can be taught have evolved over time. However, two instructional philosophies seem to have stood the test of time. These are the bottom-up approach and top-down approach to reading instruction. This section discusses these two reading instruction philosophies in detail and how they influence the teaching of reading.

The bottom-up view is also referred to as the behaviourist view. First, learners have to learn separate letters, then diphthongs and other letters that represent sounds followed by short words and phrases. The other view also known as the psycholinguistic view describes reading as a top-down process and regarded as a process going from the whole to the parts. Learners have to understand the written language and it is thus, comprehension-driven. Meaning is most important and learners start by reading single-syllable words and later multisyllabic words (Joubert 2013:104-105).

An individual's view of reading will most certainly influence their philosophy or approach to teaching reading and eventually the methodology chosen to teach reading thereof. According to Weaver (2002:1), Jeanne Chall in her seminal work, *Learning to Read: The Great Debate*, written as far back as 1967, already divided reading approaches into two categories. These categories are namely the code-emphasis approach (bottom-up approach) and the meaning emphasis approach (top-down approach). The first set of methodologies which are informed by the code emphasis approach concentrate on teaching readers how to decipher the alphabetic code first. The meaning emphasis approach, on the other hand, emphasises the teaching of meaningful units of text rather than the alphabetic principle and letter-sound correspondences (Weaver 2002:1).

The bottom-up approach to reading instruction is described by Nagao (2002:4) as the oldest approach to the reading process and first focuses on the reader being able to

competently perform elementary reading tasks like letter and word recognition with very little attention being paid to higher-order reading and thinking skills like comprehension (Treiman 2001:2). The goal of reading instruction in a bottom-up instructional context is to have readers develop automaticity in letter recognition and word identification (Anderson 2005:3). The emphasis of bottom-up reading approaches is also placed on the development and acquisition of other reading skills like the generation of grapheme-phoneme correspondences, the utilisation of orthographic redundancies such as regularities in letter sequences and the association of words to their semantic representations (Nagao 2002:5). These skills are the visible signs of the reading process.

Several teaching methods that support the bottom-up view of reading instruction have also been developed. The most prominent bottom-up method to teaching reading is the phonic method (the sounding out approach). According to Reid (2011: 65), the bottom-up view is essentially the phonics approach. The phonics method teaches the reader to recognise, recall and discriminate the forty-four phonemes of the English language. Another teaching technique under the phonic method includes the diacritical marks method where colour scheme and marks to learn the sounds of the English language (Reid 2011:57).

Another phonic method has also developed recently and it is known as Teaching Handwriting, Reading and Spelling Skills (THRASS). This programme acknowledges that in English, the 26 letters of the alphabet are used to read and write 44 sounds of phonemes but the phonemes are represented by at least 120 different spelling options, which all have to be pronounced and read correctly. For example, in this regard, the letter 'a' represents distinct sounds in words such as ant, baby and ball (Colt & Place 2013:121),

Top-down reading approaches rose to prominence in the 1970s-1980s as an alternative to the deficiencies of bottom-up reading strategies. The basic assumption of the top-down reading approach is that readers start to translate and process a piece of text in their brains by creating a hypothesis or guess about that text they have in front of them (Pearson & Kamil 1978:4). This view of reading instruction is premised on Goodman's (1970:498) definition of reading as a 'psycholinguistic guessing game'. The reading as a 'psycholinguistic guessing game' view acknowledges the mutual interplay between language and thought in the meaning-making process an individual goes through while engaging in reading. Readers bring their knowledge and experiences to a text no matter how limited, which they then use to repeat, sample, predict, test and confirm their

hypothesis about the text they are reading. Such thinking has also given rise to the whole language tradition of teaching reading.

Whole language methods of teaching reading operate from the assumption that reading acquisition is primarily a process in which children learn to use multiple cues (syntactic, semantic, visual, graphophonic) in identifying unfamiliar words in a text, with text-based cues. Generally, these cues are being used to generate hypotheses about the text yet to be encountered and letter-sound cues being used mostly for the confirmation and self-correction of the text (Snow & Juel, 2005; Shankweiler & Fowler, 2004 cited in Reid 2011:66). Some whole language methods to the teaching of reading include the whole story method, word patterns and the sentence method. The schema theory (Rumelhart 1977) also fits into this cognitively based view of reading. According to the schema theory, the reader brings previously acquired background knowledge organised into interrelated patterns or schemata to the reading process (Buttler-Pascoe & Wiburg 2003:115). Thus, the reader creates meaning by relating the text to this background knowledge and personal experiences.

Today the bottom-up and top-down approaches to reading instruction have become the building blocks upon which reading methodologies including using technology to read, are designed. It is clear that for mobile reading devices to be meaningful pedagogical aids to teachers and a companion to readers, there is a need to model the use of these technologies along theoretically recommended lenses. Technology within itself cannot be a miraculous reading aid without being informed by a sound theoretical basis concerning the reading process and reading.

### **3.1.4 Reading and motivation**

Reading as a skill needs to be constantly and consistently refined. Those readers who continue to cultivate the skill by reading more stand to benefit more from using the skill in terms of enhanced comprehension ability and improved academic achievement rates (Wigfield, Cambria & Ho 2012:52). As a result, reading motivation becomes an important construct in ensuring that learners value reading and make a deliberate choice to read abundantly so that they may also be richly rewarded in gaining intellectual skills critical for survival in today's knowledge and information-driven global economy. The relationship between motivation and reading continues to generate a lot of interest amongst reading scholars and practitioners. Immense efforts have been made in coming

up with various ways to motivate individuals to read more. In this section, reading and motivation are unpacked and the role mobile technologies play as potential reading motivators are also taken into cognisance.

Hermosa (2002 cited in Meniado 2016:120) explains reading motivation as a self-driven wish and craving to engage in the act of reading for diverse goals or intentions. The foremost researchers on reading and motivation, Guthrie and Wigfield (2000:405) see reading motivation as a combination and product of many complex intrinsic and extrinsic factors (personal goals, values, beliefs). Also, they include the processes (topics) which influence an individual to deliberately engage or dispose themselves to the act of reading to achieve a particular result (reading outcomes). Earlier, Guthrie and Wigfield (1997:60) had asserted that reading motivation is a multidimensional notion that has eleven dimensions found under three broad categories of reading. These include competence and efficacy beliefs like reading efficacy, reading challenge and reading work avoidance. Second, there are achievement values and goals and they include reading curiosity, reading involvement, the importance of reading, competition in reading, reading recognition and reading for grades. Last, social aspects of reading social reasons for reading and reading compliance.

The major challenge with reading motivation is that it decreases and sometimes often disappears as learners grow older from early childhood to adolescence. The greater irony in this respect lies in that it is during adolescence that learners begin to develop strong and long-lasting self-conceptions of themselves as readers. Moreover, motivational beliefs and values become more stable at this age. Hence this implies that the reader, who has struggled to read for the greater part of their life, will loath reading even more and their negative values, beliefs and dispositions towards reading will become entrenched. The reverse scenario is also valid for the reader who has enjoyed success in reading up to this point. A more positive outlook towards reading is sustained (Wigfield et al 2012:53).

Some factors have been identified as leading to a decline in reading motivation among adolescent learners. These factors include the learner's realisation that their reading capabilities are different from those of their age mates; the coverage of content in a particular textbook is a key reading resource. If it is set beyond the learner's reading level, this can be demotivating and gives a general feeling of indifference or indignation towards

the grade learning or reading curriculum, thus impacting on reader's motivation (Long 2014:12).

The emergence of mobile reading technologies like smartphones and tablets brings with them a lot of promise as an intervention as far as motivating adolescent learners to read is concerned. This feeling is aptly embodied in the sentiments of Alexander and Fox (2011:171) who feel that the solution to adolescents' lack of reading motivation may lie in no-traditional forms of reading texts, which might be found or exist outside the school and classroom contexts. Also, Pim (2013:28) concurs with this observation when he asserts that reading materials that can be found in digital text formats (e-books, mobile books) and can be delivered on seemingly fashionable devices like mobile handheld technological gadgets can enthuse adolescent learners to read.

The relationship between technology and reading motivation is yet to be ascertained empirically and many studies are emerging and evidence on the ground seems to suggest a contrary situation. In a study on e-readers, reading motivation, attitude and comprehension, Long (2014:56) concluded that while technology was an important part of learner's existence in the twenty-first century, relevant and interesting texts are critical in motivating learners to be engaged in reading. The National Literacy Trust (2014:10) reports that children and young people in the United Kingdom who read print text every day, enjoy reading more. While Wang and Smith (2013:128) report that first-year Chinese university students will most likely be motivated to read using their mobiles only if the reading tasks were aligned to some course goal or objective. According to the Pew research centre (2012:4), only 30% of Americans they surveyed enjoyed reading more since they owned an e-book reader or tablet. Worldreader (2012:6) reported "an increased enthusiasm to read" among participants of its e-reading pilot study conducted in Ghana from 2010-2011.

It is clear from the information reported above that the reading teacher and researcher need to carefully design both in and out of school reading programmes that take into account the multidimensional nature of reading motivation and not over-rely on the euphoria that reading technologies alone will motivate readers. Mobile reading devices, despite their potential, cannot account for the complete reading motivation of the adolescent reader on their own. Other factors that can be disruptive and distractive to a reader's motivation like the nature and relevance of the reading text also need to be taken into consideration.

### 3.1.5 Reading and technology

The technology of all kinds is naturally meant to make the lives of humankind more comfortable and easy. The advent of omnipresent mobile reading technologies like e-readers, tablets and smartphones has been perceived in the same vein as it is generally thought that reading technologies make reading easier. As a result, three adjectives continue to feature prominently when the relationship between reading and technology is being described. Technology is often described as being *assistive* to, *supportive* to and *enhancing* the reading process.

Assistive reading technologies are used to assist struggling readers or readers with reading disabilities to improve their reading abilities. Assistive technologies are a wide range of software and internet programmes that have generically and specifically been designed to aid and support literacy skills development for struggling readers (Silver-Pacuilla, Ruedel & Mistrett 2004:2). Connor et al, on the other hand, identify three ways in which technology supports reading. They posit that technology supports learner's literacy development. Secondly, technology supports the assessment of learner's reading and writing skills and lastly, it supports the efforts of teachers to provide more effective literacy instruction (Connor et al 2014:5). Pim (2013:32) rightly summarises the supporting role technology plays in reading development when he asserts that modern technologies and related software programmes give early readers ample occasion to practise reading under relaxed, friendly and reassuring circumstances.

There are various types of reading software and their role depends on the purpose for which they are being used. For learners with reading disabilities, for example, the role of assistive software is to provide reading remediation and compensation of reading skills caused by the reading disability (Silver-Pacuilla et al 2004:9). Remediation software could remediate specific reading skills by allowing individualised instruction and repetitive practice for the learner. The computer provides a non-judgemental learning environment, which allows the learner to practise reading while being free from anxiety. In the logographic and alphabetic stages of reading acquisition, the software assists learners to acquire key reading skills typical of this stage like phonological awareness and sight word recognition so that they broaden their reading vocabulary. The software in the reading to learn or orthographic stage of reading development facilitates the practise and development of skills related to reading comprehension (Connor et al 2014:8). These skills include inferential, summary and grammatical skills.

Some internet-based software programmes or applications are reported to promote active reading. Pim (2013:34) reviews a text-based digital game called interactive fiction. With this application, readers take part in the story creation and telling process as they adopt the role of the protagonist and become directly involved in determining how the plot of the narrative unfolds as determined by the choices they make during the interactive reading process. Pereira (2012 cited in Pim 2013:34) reports that learners find interactive fiction fun and engaging because of the degree of control over the reading process afforded to the reader by the programme. Pim notes that quite many interactive fiction texts are available on the internet like 'Quest 5' (<http://quest.codeplex.com/>) and 'Inform 7' (<http://inform7.com/>). Interactive fiction is relevant to this study, as it has the immense potential to foster positive reading habits and to enhance reading motivation among adolescent learners in Zimbabwe because it is fun and engaging. However, the application needs to be adapted so that it can be accessed offline and on mobile reading devices like android smartphones and tablets.

Hardware devices that promote reading development have also evolved with time. Since the launch of the first e-book reader in 2007, reading has never been the same. Today mobile reading devices like smartphones, tablets, e-readers and laptops are now universally available to all and as a result, these mobile reading devices have ushered in the mobile reading era (UNESCO 2014:1). Nevertheless, the most intriguing hardware component of mobile reading devices to date is their interactive touch screen capacity. Through the use of interactive touch-screen technology of mobile reading devices like smartphones and tablets, the reader has the potential to interact directly with the reading text allowing for a more real reading experience (Lenchner 2009:2). Also, mobile reading devices have other hardware components like internal storage drives and removable memory cards that can allow storage and access to high-quality reading material both online and offline (Pim 2013:37).

Silver-Pacuilla et al (2004:5) make two important observations as far as reading and technology are concerned. After extensively reviewing research findings on the subject, they concluded and reported that much of what is being presented about reading and technology is believed, felt or hoped. The empirical evidence is insufficient. Indeed, today's technology is very dynamic and technological innovations and their related literacy interventions continue to outpace what we know empirically. Cheung and Slavin, in an extensive literature review of eighty-five research studies on the effects of



technology use on reading achievement, found no trend toward more positive effect and very minimal effect of these supplementary reading programmes at early grade reading level (Cheung & Slavin 2011:15). These poor findings have been attributed to the technology itself, for instance, some reading applications have animations and text to speech capabilities all of which distract the learner and draw them away from the printed word, which forms the very heart and soul of reading.

In contrast, Connor et al (2014:1) examined the utility of reading technologies across three reading development periods that is emergent literacy, learning to read and reading to learn. They found that while literacy software can effectively support reading skills acquisition, across the periods, technology can never replace good teaching. Alshammari (2014:69) also notes this tendency by most studies to emphasise the reading technology at the expense of pedagogy so much that very little literature exists on how best these technologies can be integrated into reading instruction programmes.

Clearly, the foregoing discussion illustrates that the status and role of technology as an enhancer of reading skills is still very much under scrutiny. Reading technologies are still very much evolving and their role in fostering reading development is yet to be fully comprehended by reading experts and technology enthusiasts. Nevertheless, technology forms an inevitable part of human existence and its presence has in a way reconfigured how individuals learn to read. Reading experts have to reimagine and rethink the nature of reading considering these new technological developments. In the researcher's opinion, young Africans have also not been left out by this technological reading revolution and their response to this recent phenomenon is of paramount importance.

### **3.2 Generation 'Z' also known as a generation of connected readers**

The adolescent participants of this study were drawn from a unique group within the population that has been labelled Generation 'Z' in demographic literature. This generation is labelled generation Z because it is the first truly 'digital and global generation' (Enactus & Robert Half 2015:5). It is a generation that was born in the age of technological advancement and the age of global connectedness through access to the internet and mobile telephony. Other nicknames ascribed to this generation include tags like digital natives (Prensky 2001), screenagers or screensters (Merriman 2015:5) and an internet generation or iGen. The numerous pseudonyms attributed to this generation are simply an acknowledgment of the intimate and influential relationship technology has in shaping the

lives and daily routine of this young cohort of learners. It is apparent from the foregoing that this special bond Generation 'Z' shares with technology now define their lives as readers daily both at school and away from school.

Generation 'Z' is classified according to chronological age within the literature and many variations emerge. According to Enactus and Half (2015:5), generation 'Z' was born between 1990 and 1991. Merriman (2015:5) classifies generation 'Z' as those individuals born after 1997. This study nevertheless concurs with the Spanish researchers, Fernandez-Cruz and Fernandez-Diaz (2016:98), who view generation 'Z' as combining young people whose dates of birth between the years 1995 and 2012, while generation 'Y' includes those born between 1977-1994 and generation X incorporates those individual born amidst the years 1966-1976. In this study, the adolescent learners were born between 1999 and 2002, hence they fit the bill as defined by Fernandez-Cruz and Fernandez-Diaz.

The single most important characteristic of generation 'Z' which is relevant to this study is that generation 'Z' has never known a world devoid of the internet (Rothman undated:3, Tulgan 2013:3). Generation 'Z' is a connected generation born into a world filled with technology. It is technologically savvy and constantly connected to social media networks like Facebook, Instagram, Snapchat and Whatsapp. Handheld devices like tablets and smartphones afford this generation mobility and access to telecommunication networks on the go. Merriman (2015:5) aptly sums this up when she asserts that this is the first group of truly digital natives who have virtually grown up online, a truly connected generation with access to vast amounts of information at their fingertips. This is a generation that socialises and stays connected over social networks rather than interacting over physical space. The implication of the preceding assertion for this study is that the reading lives of adolescent learners are progressively becoming networked as handheld devices continue to mediate their relationships at home and school. Consequently, as adolescent learners in Zimbabwe spend more and more time onscreen, new reading practices and preferences emerge.

The characterisation and categorisation of generations into 'X', 'Y' and 'Z' is a construct mainly applied in developed countries. These generational characteristics may not necessarily apply to adolescent learners in developing contexts. Tuner and Hick (2015a:8) feel that the classification and characterisation of the current adolescent generation into generation 'Z' is an unwarranted generalisation. Often, it leads to a misleading stereotype

which seems to imply that today's adolescent learner is dumber than generations past and is a purely digital reader who is unmotivated and does not know how to read physical books at all. They explain that this is far from the truth as their research revealed that generation 'Z' has developed a complex set of both digital and physical reading practices. It is the opinion of this researcher that we can classify the teenagers in Zimbabwe as a developing country as generation Z because mobile technologies and the internet form an integral part of their lives.

### **3.2.1 Reading in the secondary school**

The case for adolescent literacy has never been stronger than it is today. This is primarily because today's society is so highly knowledge-based and information-driven that a failure to read by today's adolescent learners is futile to the future of nation states (Ippolito, Steele & Samson, 2008:1; Moje, Young, Readence & Moore 2000:400). The available literature on reading in high schools in different developed countries such as the United States of America, The United Kingdom and Zimbabwe show that a huge number of adolescent learners in secondary schools are reading far below their grade level. This has led to reluctance and a generally negative attitude towards reading by learners in secondary schools (Slavin, Cheung, A, Groff, & Lake, 2008).

There is also a consensus and widespread concern within adolescent reading literature and reading research that adolescent learners enter secondary school with limited literacy skills. Learners who are entering secondary school would have regressed to 'under-literacy' or 'illiteracy' (The National Council of English teachers (NTCE), 2006:4). This failure to read has serious negative implications in all subjects across the curriculum as learners cannot perform reading assignments or comprehend the texts they are studying. According to Flood (2013:11), 'thirteen and fourteen-year-olds in the United Kingdom were reading books with an average book age of ten.' Flood concludes that reading below the expected grade or age level affects both the literacy development and intellectual development of the learner since a strong correlation exists between reading ability and academic achievement.

According to Slavin et al (2008:295), the teaching of reading has not been the focus of secondary school teaching in the United States of America. However, the limited literacy amongst secondary school students has led to the introduction of specialised remedial reading classes in American high schools. Another strategy that has been developed to

counter these low levels of literacy among adolescents in the US is out-of-school literacy enhancement programmes. The rationale behind these planned programmes was to create highly captivating literacy environments that would motivate adolescents to engage in reading activities, which would improve their literacy skills (Moje & Tysvaer, 2010:14).

In a study on the reading achievement lag in Zimbabwe's primary schools, Nkoma et al (2013:1) conclude that the longer a learner spent in primary school, the wider [the reading] achievement gap became. While Nkoma et al (2013:7) attribute this reading gap to the subdued and regressed teaching and learning experienced at the height of Zimbabwe's decade of economic crisis, Muchemwa (2014:194) on the other hand, views this problem as a global phenomenon. Muchemwa argues, 'reading deficiencies' in both primary and secondary schools are caused by several factors which can be classified as being neurological, psychological, societal and economically rooted. It is this adolescent literacy gap which this study identifies and acknowledges. Thus, there is a need for a technologically-based reading intervention programme that sought to enhance the literacy behaviour of adolescent learners in Zimbabwe.

### **3.3 Reading habits**

Kamhieh (2012:64) describes a reading habit as a repeated behaviour in which an individual uses his or her time in class or outside class to read texts on subjects they find interesting and engaging. The individual does this for their reason and enjoyment. A reading habit is developed over time and is an experience that needs to be cultivated through the repeated act of reading constantly and consistently through a reader's effort and their reader support system (Iftanti 2015:366). A reader's support system comprises peers, parental influence, teacher support and availability of both print and digital reading resources. A desirable reading habit implies practising reading daily until it becomes second nature. Numerous empirical efforts have focused on the reading habits of young people within different educational settings. Groups investigated included primary school learners (Tella 2007:117), secondary school learners (Daniels & Steres 2011:1 ; Harrison 2012: 41; Hughes-Hassell & Rodge 2007:21 ; Ronald, Bernard & Ondari 2014:233), student teachers (Rimensberger 2014:1) and University students (Kamhieh 2012:5 ; Karim & Hasan 2007:290 ; Ruterana 2013:36).

The studies cited in the foregoing paragraph have identified several factors which they attribute as leading to poor reading habits and a decline in reading culture among young

people. The first and perhaps most important factor is the question of access to reading materials. This factor is often found to be true especially in low-income countries. Tealle (2007:132) notes that primary school children in grades 5, 6 and 7 in Botswana's urban areas do not read during their free time because schools lack adequate library books. Ruterana (2013:42) observes that the impoverished literacy environments or backgrounds of Rwandan homes have led to the poor reading habits of tertiary students in Rwanda. However, Ronald, Benard and Ondari (2014:235) dismiss outright the notion that Africans are poor and therefore cannot afford to buy leisure reading texts or library user fees. Instead, they blame this on misplaced priorities and cite how Kenyans recklessly spend money on alcohol and fast foods. The essence here is that Kenyans like most Africans, do not value reading for pleasure.

While these studies advocate strategies like book flooding (Tealle 2007:135) and the publication of linguistically, culturally and socially relevant literature (Ruterana 2013:50), none directs their focus towards technology in general and mobile reading devices in particular, to enhance the reading culture of young people including young Africans. Worldreader (2012:7) asserts with extreme optimism how mobile reading devices can deliver countless books into the hands of a single reader, who previously had none through their palm-held devices. While mobile reading devices might immediately address the question of access, the challenge still lies in getting the adolescent reader to 'pick up' these books, read and engage with them. Furthermore, these books may not be relevant and interesting enough to engage adolescent readers in Zimbabwe. The researcher, thus, entered this study with cognisance of this fact when it comes to mobile e-text selection and provision.

The influence of reading role models or lack thereof is another factor that has been identified as contributing to the poor reading habits of young people. Teachers and parents are the most important reading role models in a young learner's literacy life. In one study conducted amongst student teachers in South Africa, Rimensberger (2014:1) discovered that student teachers in South Africa confessed to having poor reading habits making them very pitiable reading role models for the children who will form the classrooms they would take charge of in the future. This is a worrisome trend and sets a bad precedent for reading in the classroom of the future. The findings of Rimenesberger paint a bleak picture and cast doubt whether tomorrow's teachers will be positive reading role models for tomorrow's learners. Ronald et al (2014:238) also identify a lack of students' motivation

by teachers and parents, a lack of commitment by teachers and parents and poor reading foundation at home as contributing to the poor reading culture amongst Kenyan students.

An earlier and interesting observation that seems perhaps contradictory to these findings is made by Mathangwane and Arua (2006:46) who studied the attitude of parents in rural Botswana towards reading. They note that even illiterate parents encouraged their children to read as they [the illiterate parents] desire their children to have a better life than their own. However, Mathangwane and Arua do not specify the type of reading that these parents encourage their children. Apart from teachers and parents, librarians and peers can also provide a positive influence as reading role models albeit to a lesser extent (Hughes-Hassel & Rodge, 2007:28).

The role of the school in reading promotion is heavily acknowledged in the literature and this seems to be underwritten by a consensus that secondary school should play a leading and deliberate role in promoting reading for pleasure amongst adolescent learners. In a case narrative of how a new school principal in the USA changed the contextual tone of his new institution by making a school-wide reading culture a 'significant and important priority', Daniels and Steres (2011:1) report that this emphasis on school-wide reading which was systematically introduced, led to the creation of a 'family of readers' in the school among both teachers and students. Also, Harrison (2012:43) notes a positive change towards reading among nineteen-year-old students at a high school in New Zealand after a reading promotion intervention. Although these two studies report and discuss the success of many deliberate reading interventions like 'book hook', 'sustained silent reading' (Daniels & Steres 2011:8), 'speed booking' and 'peer book promotion', none of these interventions entail using technology in the enhancement of adolescent literacy as this present study attempted to do. Given the hegemonic hold mobiles have in the daily routines of teenage students' lives, schools need to take a leading role in integrating these reading technologies as a reading promotion intervention in the reading lives of the learners.

A rich oral heritage that is embedded in the oral transmission of folklores has also militated against the development of robust reading habits amongst Africans (Ruterana 2013: 38; Ronald et al 2014:235). While not undermining the educational value of African folklore and traditions, the implication here is that in an increasingly information-driven society, there is an urgent need to transcribe African folklores into print and digital orthographies.

This reiterates the need to include available digital versions of Zimbabwean and African folklores when designing the intervention for adolescent readers.

### **3.3.1 Digital reading habits**

Advancements in digital communications have had a sweeping impact on the way people read today. Reading information today has largely become digital as vast amounts of digital reading materials are being made available via various digital platforms for readers. As a result, readers are migrating or shifting their reading behaviours and practices. Mobile phones have also advanced in technology, enabling more people to use them as mobile reading devices. This newly emerging trend of being able to constantly read on the go using digital devices like smartphones, tablets and laptops has led to a pattern of human behaviour which may be termed as digital reading habits.

Karim and Hasan (2007:285) aptly describe this new digital reading phenomenon when they assert that:

*"The pattern of reading, as is known from the past, may not be the same as reading is known today or in the future. Research in reading habits needs to be further updated by including current advancement in ICT, where the technology has enabled reading to be timelier and somewhat non-linear by using devices such as computers, PDAs and wireless phones without the presence of any printed document."*

Doubtlessly, the abovementioned observation clearly articulates the direction research on reading habits should take in a rapidly changing literacy and technological milieu. Indeed, the way people read and how they read can no longer be divorced from the technologies they have in their pockets. Technology has fast become an appendage of human existence and as a result, defines the reading lives and culture of adolescent beings today.

### **3.3.2 The digital reading habits of adolescents**

There is clear evidence from research conducted on reading habits in the first decade of the twenty-first century that there is a shifting pattern amongst the reading behaviours of adolescents around the world. The internet is quoted by an increasing number of respondents in studies as a source (medium) of leisure reading.

Today digital reading has become a reality and questions arise whether today's adolescents are digital readers. The digital reading habits of adolescents have become the focus of many research efforts from around the globe. Merga (2014:14) sought to find out if Australian adolescents were keen digital readers. Merga discovered that 52% of the

respondents from her study had access to mobile reading devices like a mobile phone, tablet or e-reader. She further discovered that 53% of those respondents who had access to mobile reading devices hardly ever used them for reading, preferring printed books. Merga concludes that access to mobile reading devices does not necessarily translate to reading. The National Literacy Trust (2014:4) reports that 68.7% of the 35 000 British teenagers aged between 8 -16 years whom it surveyed were likely to read digital texts on a computer, tablet or mobile phone outside school. A different picture does, however, emerge for younger children in the same country. In a survey conducted in the UK of parents' perceptions of and practices concerning children's (0-8 years) reading for pleasure with print and digital books, Kucirkova and Littleton (2016:5) found a strong preference for print books ahead of interactive e-books.

However, a different trend in the digital reading habits of adolescent learners seems to emerge in Asian and African countries. ICTs, like mobile phones and tablets, are seen as being enablers of reading. For instance, University students in Uganda were found to prefer digital reading media as they could easily access cheap and the latest reading resources compared to the old print books found in the university library (Mlay, Sabi, Tsuma & Langmia 2015:46). Saaid and Wahab (2014:249) studied the digital reading habits of students at a Malaysian university and found that 69% of the respondents read digital-based materials for leisure. The respondents affirmed an increased interest in reading for leisure, which they attributed to the emergence of digital reading materials and media. Shimray, Keerti and Ramaiah (2015:366) assert that reading and literacy have been greatly restructured by technological advancements. Shimray et al. testify that in India, students are amongst some early adopters of e-books and digital versions of textbooks. However, Indian students prefer to use digital textbooks because they are cheaper, easily accessible and provide up-to-date content. Furthermore, the Indian students preferred reading print textbooks for prolonged periods of study and digital textbooks for quick reference of study material.

A knowledge gap on the digital reading habits of Southern African and Zimbabwean adolescents exists. It is this knowledge gap that this study sought to fill. This particular research effort sought to fill the gap by investigating how young Zimbabwean learners reconciled their literacy practices to the multi-functionalities of their handheld mobile gadgets.



### **3.4 Mobile reading and emerging research trends**

Mobile e-books and mobile reading devices have stimulated research interest and academic discourse about how these new reading media can be smoothly integrated into the everyday reading lives of people around the globe. Most of the studies are current, with a vast body of the work still being unpublished. However, exciting research trends and themes are emerging. Early studies focused on the characteristic features of mobile reading devices which make them more socially desirable compared to printed books (Schcolnik 2001:1; Wang 2009:237). As the features of mobile reading devices evolved and improved, the focus of studies has turned to their acceptance and widespread use as a new medium for transmitting and decoding textual information. This research theme is largely common in research conducted by corporate enterprises, with reports showing a positive upsurge in the purchase and ownership of e-readers, mobile phone, tablets and e-books and reading applications for mobile devices (National Literacy Trust 2014:4; UNESCO 2014:16). Once mobile reading devices became desirable as the new reading medium, studies have now turned their focus to the practical application of these reading devices in reading instruction and literacy development within the language classrooms (Long 2014:1; Walters 2012:4; Worldreader 2014:5).

The impact MRDs have on the reading behaviours of adults and children has also been investigated. The emphasis of such efforts has been on the causal effects these devices have on reading motivation, literacy skills development and attainment levels in schools (Bhatti 2013:3; Long 2014:iv). Other studies have gone on to note the negative consequences of m-reading on the cognitive and intellectual development of learners and as a result, they advocate for the continued use of paper printed material as opposed to on-screen or digital reading materials (Baron 2013:1; Magen, Walgermo & Bronnick 2013:61). Other studies find a mixture of both the print and electronic medium as being highly beneficial to learners in terms of cognitive development (Solak 2014:202). USAID (2014:4), in a landscape review of various mobiles for reading programmes from across the world, aptly sums it up when it posits that the current body of research in the space of Mobiles for Reading (M4R) is more 'indicative of trends rather than a summation of what is known.' Thus, more research about this issue needs to be done.

#### **3.5.1 The desirability and acceptability of mobile reading devices**

In an early study conducted on reading with dedicated e-readers, Schcolnik (2001:iii) investigated the suitability and acceptability of e-readers as a new medium for reading.

The study which used a web survey reported a positive attitude towards e-readers amongst respondents. Also, the study noted the most important features of e-texts and e-readers, respectively. Features such as hyperlinks, portability, legibility, illustrations, highlighted words, ease of navigation and ample storage space all made e-readers a desirable medium for reading informational texts and reading for leisure. The study, thus, concluded that e-readers are most suited for reading for pleasure. In a later study with Chinese readers, Wang (2009:239) reaffirms Scholnik's findings when he observed that hyperlinked dictionaries in e-texts helped intermediate and advanced Chinese readers comprehend passages and vocabulary acquisition.

Ownership and usage of mobile reading gadgets like tablets, mobile phones and e-readers have risen drastically. UNESCO (2014:16) reports that 6 billion out of an approximated total of 7 billion people on earth have access to mobile phones. Postal and Telecommunications Regulatory Authority of Zimbabwe (POTRAZ, 2020) reports that there are 12.8 million mobile phone subscribers in Zimbabwe. Therefore, based on ownership of mobile phones alone, the potential for mobile reading through MRDs is immense for the world and Zimbabwe in particular. The National Literacy Trust (2014:6), reports in its annual UK survey of 2012 on literacy behaviours that the number of children using computers and other electronic devices to read had for the first time surpassed that of those reading in print format.

These findings reiterate the changing tastes and preferences of today's adolescent readers. The modern-day reader's choice of reading media seems to be increasingly becoming digital rather than print. Mobile reading technologies have also rapidly evolved. It is developing even more advanced features and capabilities to enhance the user's reading experience. Today unlike in the past, generation 'Z' is spoilt for choice. They have at their disposal access to a broad and diverse range of Mobile reading devices and mobile reading applications of which can contribute to the cultivation of reading amongst adolescent learners in Zimbabwe today.

### **3.4.2 The application of mobile reading technologies in the reading classroom**

In attempting to define a research agenda for technology-enhanced reading instruction, Edyburn (2009:147) identifies a couple of niche areas that require empirical attention. For instance, Edyburn singles out the need to investigate the relationship between prolonged

access to reading technologies and how this cultivates 'interest, motivation, engagement and scaffolding skills development in emergent or remedial readers'.

As if on cue, a body of experimental and quasi-experimental studies emerged in response to this observation. Long (2014:iv), Taylor (2009:4), Walters (2012:12) and Worldreader (2014:5) undertook studies whose focus is on the relationship between m-reading and the development of literacy skills like an achievement in reading comprehension, reading speed and accuracy and phoneme recognition. All the studies cited in the foregoing discussion focused on m-reading in early grade literacy development. The studies found that the improved access to reading materials through mobile reading devices enhanced the acquisition of reading accuracy and fluency amongst the research participants. Learners could decode the alphabet, sound-letter correctly and recognise words effectively. However, no significant differences between print and mobile reading were recorded for reading comprehension achievement rates. In terms of motivation, Worldreader (2014:5) reported increased motivation to read which was attributed to the availability of the mobile reading devices within the pilot schools.

In another experimental study that investigated the effectiveness of using Computer CALL to teach reading over the traditional instructor-led reading class in a Pakistani secondary school, Bhatti (2013:1) observed CALL to be more effective. He also noted improvement in comprehension-related skills such as answering literal comprehension questions, inference, deduction and evaluation of reading texts. In a more similar study conducted in a Junior High School in Arizona in the USA, Stevens (2014:5) compares e-reading comprehension versus conventional reading comprehension. Three groups of junior high school students were given conventional print texts, plain e-texts and e-texts with support. Stevens concluded that the type of text (print or electronic) made no significant difference in learner's comprehension scores.

The cited studies focused to some degree on measuring the effects reading technologies have on reader's motivation. It is, however, also necessary to look further by not only measuring how motivation to read exists but also to measure engagement with reading materials.

### **3.5 Mobile reading applications**

Mobile applications commonly abbreviated mobile apps are software specifically designed and meant to be added to handheld devices like smartphones and personal digital

assistants (Adolph 2009:1). This means that for individuals to consume mobile e-books, they have to 'add on' mobile reading applications or apps to their mobile devices to enable the interface between digital text, device and reader. Reading applications facilitate the transformation of handheld devices into MRDs since the devices' primary function was meant for communication.

Mobile reading applications are, therefore, add-on software for handheld devices that make the viewing, navigation, annotation and consumption of various e-book formats and digital texts on mobile devices possible. According to Biancarosa and Grifitths (2012:143), [mobile] e-reading software refers to various programmes and applications which enable readers to connect with and read the text in digital format on their mobile devices or over a network. A flurry of mobile reading apps have been developed and are available from the different app stores online. Most of the available literature on mobile reading apps centres on reviews of these extensive commercial and open source apps. Unfortunately, in most cases, these reviews lack evaluative significance, which can assist parents and educators in making informed decisions concerning the educational worth of these mobile reading applications (Vaala, Ly & Levine 2015:4).

It can be seen that various mobile reading applications and the necessary add-on software exist and are available. However, the choice of mobile reading applications poses a problem.

### **3.5.1 Reading applications and reading skills development**

It is apparent from the discourse on mobile reading applications that the most popular and best-rated types of reading applications are the ones that focus on the development or enhancement of the big five pillars of reading (Duston 2013:3). The big five pillars for reading focus are the alphabetic principle, phonemic awareness, oral reading fluency, vocabulary and comprehension (USAID 2014:4; Save the Children 2014:2) ( see section Refer here to the section on reading earlier in this chapter). In a comprehensive study of reading applications available for children aged 0–8 years, Vaal et al (2015:2) noted that most reading applications available on the most popular app stores support simple procedural reading skills like the alphabetic principle and phonemic awareness (learning to read) at the expense of more complex conceptual reading skills like fluency and comprehension (reading to learn). The instructional features found on these apps include games, puzzles, quizzes, colouring books, stickers and songs (Vaal et al. 2015:28).

However, Zou and Li (2015:564) attribute the stated instructional design flaw to a skills mismatch between the application developers and their knowledge of reading theory and pedagogy. They further caution that the pedagogical usefulness or soundness of most reading apps is still very much questionable and needs to be empirically evaluated.

Some reading apps support more advanced reading skills and these aid learners develop a habit of reading for lifelong learning (reading to learn). Some reading applications contain advanced mechanics, tools and instructional features that readers engage with while viewing content. These features like 'animated avatars that respond to student input in a digital text tend to boost vocabulary and identifying inferences manipulable embedded graphics to support iterative concept development' (Biancarosa & Grifitths 2012:145). These features support a top-down approach to reading instruction (Kim & Kwon 2012:49) (See section 3.2.3). Besides, mobile reading applications act as digital repositories enabling access to both fiction and authentic reading materials that enhance access to reading material for learners. For instance, the world reader mobile application used for this study has 37 336 e-book titles available in forty-three different languages including Shona, one of the main indigenous languages in Zimbabwe.

Mobile reading applications have proven to be more successful in developing rudimentary reading skills like decoding the alphabetic principle, phoneme production and word recognition.

### **3.6 Mobile reading in Zimbabwe**

Mobile reading in Zimbabwe still seems to be largely subsidiary and under-documented. It is stated on the Worldreader website ([www.worldreader.org](http://www.worldreader.org):10/9/15) that 29 223 Zimbabweans out of a possible population of thirteen million are registered users of their free mobile reading application. This represents 0.15% of the total population who use the platform. The mobile reading application features countless storybooks and textbooks collected from different corners of the globe and can be downloaded onto a wide range of mobile devices from the first generation java powered mobile phones to the android operated tablets. Zimbabwe's online technology magazine, Technomag ([www.technomag.co.zw](http://www.technomag.co.zw): 10/9/15) reports that as many as one hundred thousand Zimbabweans per month are reading e-books using mobile reading devices like e-readers, mobile phones and tablets. Technomag ([www.technomag.co.zw](http://www.technomag.co.zw): 10/9/15) further asserts

that mobile reading is still very much in its infancy in Zimbabwe. Nevertheless, technology can be invaluable in reigniting the reading culture in Zimbabwe.

Using mobile devices in formal learning setups like the primary and secondary schools in Zimbabwe is still very debatable because some quotas consider them a distraction and disruptive to learning. While Zimbabwe has a national ICT policy framework approved by the cabinet in 2014, the country's e-learning policy especially regarding the use of mobile devices in schools remains unclearly defined. In February 2015 the then Zimbabwean minister of primary and secondary education Dr Lazarus Dokora ignited livid national debate when he opined that there was nothing wrong with learners bringing mobile devices to school as the learners who are digital natives are living in an age of technological advancement (Herald, 2015:1). This lack of policy guidance and what USAID (2014:4) states as a dearth of research literature in the mobiles for a reading arena seem to militate against the growth and development of mobile reading in Zimbabwe's secondary schools as learners are yet to be allowed exclusive usage of MRDs in schools.

However, a different picture of mobile reading seems to be emerging from Zimbabwe's institutions of higher learning such as universities and colleges. A local telecommunications company, Econet Wireless is leading the mobile reading revolution through its 'Ecoschool' programme. The company describes the initiative as a 'digital education platform that provides scholars and educators with on-the-go and reliable access to world-class educational content' (eco-school website). The project aims to 'research, develop, deploy and launch overlay services designed to reach and impact learners through mobile and tablet-based applications' (eco-school website). The 'Eco School' initiative has the distinct advantage that it has made mobile reading devices like tablets cheaper and affordable to university students across the country. The initiative is, however, only tailored to suit the tertiary education sector and has not been rolled out to the primary and secondary schooling levels. Furthermore, no evaluative research seems to have been done on the project.

Mobile reading is, however, slowly gaining popularity within various social settings in Zimbabwe. Most people today have a mobile version of the Bible on their phones and often read them in church, at home or whenever the opportunity to preach or read the Bible avails itself (Togarasei 2012:260). The m-novel is also growing in popularity too and numerous m-novels are being serialised by the more innovative authors who release their

chapters weekly over social networking platforms. One typically common Zimbabwean platform where mobile writers release their works is a WhatsApp group called '*Dandaro remadzimai*' (Shona for 'Ladies' Hangout') where m-novel chapters are serialized free of charge for hedonistic purposes. In countries like Japan, m-novels are widely read by the young and m-comics are a major income earner for the e-book industry and read by young and old people alike. (Vosloo, Waton & Deumert 2009:2; GSMA 2011:36)

The tone of the literature reviewed in this sub-section is very optimistic about the advantages mobile reading could present to improve the reading behaviour of adolescents. Shimray et al (2015:268) aptly capture this feeling when they affirm that teenagers have a proclivity towards mobile reading as it replaces feelings of loneliness, alienation, separation and dullness. Adolescents spend more time on their mobile devices than any other activity. Furthermore, Zimbabwean youth like other young people in the rest of the world like mobile phones with built-in rich multimedia features, which in turn, support mobile reading. To date, no empirical study on the mobile reading behaviour of Zimbabweans to determine the nature and extent of the phenomenon has been published. Therefore, mobile reading in Zimbabwe is a very fertile ground for research.

### **3.7 Reading using mobile devices: possibilities and potential problems**

In this section, the possibilities and the many advantages when mobile devices are used to enhance adolescents' reading abilities are discussed. Research literature is filled with countless examples of the thrilling prospects mobile handheld devices can provide towards the advancement of literacy skills amongst learners. There are, however, also certain problems or disadvantages in the use of mobile devices to cultivate a reading culture among young people.

#### **3.7.1 The possibilities of using Mobile reading devices for reading purposes**

Technological artefacts like mobile reading devices offer omnipresent possibilities to learners to grow and advance their reading skills anytime and anywhere (Gheytasia, Azizifara & Gowharya 2015:226) and in any sphere of life. Mobile reading devices know no boundaries. They defy limitations that may be brought about by time, space and environmental constraints. Mobile reading has ensured that the act of reading and the attainment of reading-related skills is not confined to just the reading classroom or other established formal learning situations only (Joseph & Uther 2009:8). Consequently,

mobiles offer readers ample potential to read beyond an extensive spectrum of conventionally eccentric spaces (Zelezny-Green 2015:12).

The reading materials found on mobile and the reading activities undertaken on mobile devices are often authentic, profound and context-specific. Genuine reading resources in the form of text messages, webpages, online newspaper and magazine articles and online libraries are a few examples of authentic reading resources that can be delivered to readers via mobile (Miangah & Nezarat 2012:314). These authentic reading resources delivered on mobile give readers a first-hand experience of reading genuine communicative texts composed for real context, which further validates the reading process making it meaningful to the reader as opposed to reading fictional discourses only. Furthermore, mobile reading devices like mobile phones and tablets are often personally owned and access is unrestricted to the user. Therefore, reading on mobile reading devices can be personalised according to the learner's reading ability and interests.

Reading using mobile reading devices can be viewed as reading by default, the reason being that reading on mobile is incidental. The interactive and socio-communicative functions of mobile phones like chatting over social media networks, web browsing and texting create innumerable opportunities for users to read subconsciously. This subconscious act of continually interacting with text on a daily basis to satisfy the need to communicate and keep in touch with family and friends is what is described as incidental or accidental reading. That is, reading is a reflex action one does spontaneously without giving it a second thought. Thus, mobile reading promotes informal learning as learners develop reading strategies and pick up key literacy skills during incidental reading as it occurs frequently. Mobile reading technologies create an ideal platform that provides the learner with a wide repertoire of reading texts. In so doing, this creates ample opportunity for reading advancement and knowledge transfer for learners amidst their ordinary day-to-day social conversations on mobile (Khubyari & Narafshan 2016:62).

The social value of mobile devices can neither be overstated nor understated. Mobile devices not only facilitate social interaction between reader and text, they can also provide an ideal medium for consuming mobile e-books. Mobile e-books are innovative reading media that come endowed and complete with various interactive features that promote reader engagement and involvement (Ciampa 2014:19). These mobile e-books contain



features known as interactive hotspots like hyperlinks, embedded dictionaries and audio voice narration which can entice readers to spend more time reading their mobile e-books.

The most well-developed and probably most breath-taking mobile e-book interactive features are motion picture-like content, augmented reality, lifelike cartoons, 3-D simulations, high definition pictures quality, rich text formats and online resources and interactive activities like colouring (Kim 2014 cited in Ciampia 2014:21). A combination of these interactive features and multimedia functionalities of mobile devices endorse a multisensory and multimodal approach to the instruction of reading and literacy skills development (Joseph & Uther 2009:26). When digital text on a reading screen is accompanied by related images, it enhances the reading experience and comprehension by extension as the reader can create a complete mental image or picture of the content they are reading. A Japanese study by Wang and Smith (2013:120) confirms the effectiveness of mobile reading interventions that use text which appeals to over one faculty of the senses. Reading, listening and viewing the text simultaneously greatly aids comprehension and improves vocabulary acquisition. Thus, multisensory reading makes reading an engaging undertaking. Undoubtedly, the built-in feature of the mobile e-book has massive motivational value to reading. They breathe life into a book, making it interesting and enticing for learners to read wherever and whenever (Ciampia 2014:21).

Mobile e-books are relatively cheaper to publish, distribute and purchase compared to physical print books. UNESCO (2014:14) estimates that an open access copyright e-book can be made available for as little as US\$0.02 or US\$0.03. This stands in stark contrast to the US\$10.00 per copy for hard copy paper backs. Physical books also present logistical nightmares to distribute amongst remote rural communities. The mobile e-book, on the other hand, is a more viable alternative that is easier and cheaper to distribute.

Mobile e-books also offer the reader the convenience of accessing 'books on demand'. There is no need to go to a bookstore or a library, as the reader can simply download many books onto their mobile device. Furthermore, the reader can opt to read the book online or offline depending on their preferences. The 'virtual immediacy' of mobile e-books affords readers ample opportunity to develop into avid readers as time is not wasted searching for books but rather productively used reading them (Merga 2014:17).

Thus, it is clear that mobile reading devices offer limitless possibilities as far as reading development is concerned. These potentials need to be fully exploited to ensure that

adolescent learners gain optimal benefit from adopting mobile reading devices as the medium for leisure reading. As adolescent learners journey to become lifelong readers, reading teachers need to create exciting and captivating reading experiences for the young learners so that they also grow to appreciate the power of the mobile reading devices that constantly sit in their palms. This will also enhance their motivation to read.

### **3.7.2 Potential problems in using mobile reading devices for reading purposes**

Mobile books and other forms of digital books today pose a threat more than ever to the traditional dominance of the printed book has enjoyed for hundreds of years. Many research findings that discredit the successes of m-reading have been undertaken.

First, mobile reading blatantly undermines the precepts of good reading behaviour. Mobile reading upsets the maximum concentration of the reader as the attention of the readers is divided by reading and other mobile device functions (Baron 2013:1; Chiong, Ree, Takeuchi & Erickson 2012:2). The superior qualities and specifications of digital texts like hyperlinks act as cognitive distractors that disturb the mentally and intellectually absorbing task of reading which ideally should be a linear experience if undertaken with printed books (Baron 2013:1).

The opponents of mobile reading also express concern at the volume of teenagers spent reading on-screen content as opposed to hard copy texts. An evolving trend showed that youngsters were spending more time reading on-screen compared to physically printed material. The National Literacy Trust (2014:13) reports how in 2006 The Progress in International Reading Literacy Study (PIRLS) conducted a study on two hundred thousand primary-aged children in forty-nine countries. The results showed an undesirable relationship between the amounts of time spent consuming stories and articles on the internet and literacy achievement in most countries. However, Solak (2014:203), in a study of ninety-six prospective English teachers in Turkey, observed an increased reading speed of twelve percent onscreen compared to paper-based reading among the prospective English teachers. Solak maintains that the prospective English teachers preferred to read paper-based texts as opposed to digital texts.

They have also blamed mobile reading for devaluing and removing the touch-feely enjoyment and gratification associated with the reading of physical books. The joy and the pleasure were experienced by tangibly holding a book perusing carefully through its

pages. The most passionate and perhaps the most outspoken challenger of mobile reading, Magen (cited in Keim, 2014) fervently declares that:

*"When you read on paper, you can sense with your fingers a pile of pages on the left growing and shrinking on the right, [and] this very gradual unfolding of paper as you progress through a story... is some kind of sensory offload, supporting the visual sense of progress when you're reading. Perhaps this somehow aids the reader, providing more fixity and solidity to the reader's sense of unfolding and progress of the text and hence the story."*

The reading experience is incomplete without the actual act of holding a physical book in one's hands flipping from page to page. The preceding excerpt by Magen affirms the belief that reading onscreen results in a state of emotional, intellectual and even aesthetic disharmony which undermines the enjoyment derived from the reading process.

Text passage comprehension is superior with print as compared to reading on-screen or digital text (Magen, Walgermo and Bronnick 2013:65). Their findings report that learners who took part in a pilot study had read screen-based texts on a computer and performed poorly on comprehension than those who had used paper printed texts. Magen et al. reckon that this variation results from the interconnection between the linear nature of the printed text which makes it less intellectually and mentally taxing for reading comprehension tasks and activities.

Reading using mobile devices might lead to a plethora of health-related problems (Shimray et al. 2015:370). Such health problems include eyestrain, which may be a result of poor backlighting of the mobile reading devices or the visual or physical demands of reading digital texts compared to physical texts. Furthermore, MRDs can be addictive and lead to health disorders like insomnia. Wireless devices like mobile phones and tablets also have a high risk of exposure to microwave radiation (MWR), which might lead to terminal diseases like cancer.

The foregoing discussion paints a bleak future for the printed book reading. It seems like the hard copy book is doomed and heading for oblivion. Nonetheless, the conventional book as we know it is very strong and is unlikely to become extinct anytime soon. The printed book has history on its side and an unblemished track record. It has evolved giving enough time to have its flaws being perfected and assert its position as the knowledge repository of choice. On the other hand, it is unclear if the mobile book is given ample opportunity like the print book, whether it is going to develop to become a powerful

reading tool just like the printed book has been over the past years. Only time and innovation will tell.

### **3.8 Theoretical framework**

This study investigated mobile reading from a primarily bioecological perspective. While the bioecological systems theory was originally used to study human development in the field of psychology, it has occasionally been applied in literacy development studies (Jaeger 2016:29). Unlike previous literacy studies which drew upon the bioecological systems theory, this study went a step further in adding a technological dimension in the form of mobile reading devices. Two other theoretical positions that supported this bioecological study of mobile reading are included: a model of connected reading (Turner & Hick 2015) and Wigfield and Guthrie's (2000) engagement model of reading.

#### **3.8.1 Overview of the ecological systems theory**

Urie Bronfenbrenner (1917-2005) was an American psychologist who developed the Ecological Systems Theory. The theory is an attempt to explain how human development is influenced by different types of ecological systems. Bronfenbrenner's seminal work on human development draws upon the 'ecology' metaphor to describe how a system of mutually dependent environments works in unison to exert direct and indirect influence on the individual's experiences (Plowman 2016: 191).

Bronfenbrenner's theory constitutes a set of four environmental systems responsible for shaping the individual's development. These environmental systems are the microsystem, mesosystem, exosystem; and macrosystem. They are represented using a set of concentric rings, each nested within the next (Ettetal & Mahoney 2017:2). Embedded at the centre of the structure is the individual who is the focal point in the whole system and whose experiences move outwards from the microsystem through to the macrosystem. According to Bronfenbrenner, the environmental systems consists of forces responsible for shaping the individual's intellectual, physiological, emotional and spiritual growth.

The microsystem is the most immediate layer of the environment individuals spend their lives in and includes forces the individual directly interacts with. This includes proximate relationships or institutions the individual interrelates with and these include kinsfolk, friends, neighbours and the school (Ashiabi & O'Neal 2015:1). The microsystem is a primary environment in which the physical, intellectual and social growth of the individual takes place (Alvi, Usman & Amjad 2018:96). In the mobile age, one of the key

components of the microsystem that mediates the proximal processes of the developing individual within the digital ecological context is the mobile phone. Due to their intensely personal nature and ubiquitous presence in the lives of the adolescents, mobile phones support and facilitate progressively complex and reciprocal interactions, which allow holistic exploration of the self within the ecological techno-subsystem of Bronfenbrenner's model as defined by Johnson and Puplampu (2008 cited in O'Neil 2015:10).

The mesosystem represents Bronfenbrenner's second environmental layer. The mesosystem defines the interrelationships between different microsystems, for instance the home and the school are two microsystems which combine to form a mesosystem. The mesosystem according to Bronfenbrenner is an amalgamation and interrelationship of two or more microsystems that have a direct impact on the individual's developmental processes (Cala & Soriano 2014:50). Multiple processes take place within and between the different microsystems they embed the individual in and these continuously work together to support the individual's development (Ettekal & Mahoney 2017: 4).

The third environmental layer as proposed by Bronfenbrenner is the exosystem. The exosystem refers to those environments in which the individual who is in the process of becoming (growing up) is not actively involved but affects their development (Cala & Soriano 2014:50). According to Bronfenbrenner's ecological systems model, the exosystem is made up of indirect environments that do not involve the developing person as an active participant but which have a direct influence on the person's development (O'Neil 2015:5). The exosystem has a third-party effect where developmental influences filter down via other people involved in the individual's life.

The macrosystem is the outermost layer of environmental systems presented by Bronfenbrenner. The macrosystem encompasses the cultural values, customs and laws of the society in which the young individual lives. The macrosystem also describes the financial circumstances under which families live and the material resources and opportunity structure (Bronfenbrenner 1976, 1994 cited in Asihabi & O'Neal 2015:2).

### **3.8.2 From the ecological systems theory to the bioecological systems theory**

Bronfenbrenner continued to review, refine and critique his ecological systems theory throughout his life and academic career. As a result, his theory morphed from being the Ecological systems theory into the Bioecological model of human development (Ashabi

& O'Neal 2015:1; Plowman 2016:192). Three distinct phases in the transformation of Bronfenbrenner's theory of human development have been identified. These phases are:

Phase 1- The ecological model of human development (1973-1979);

Phase 2 -Focus on the individual and developmental processes (1980-1993) and

Phase 3 – The Bioecological model of human development (Rosa & Tudge 2013:243).

The first phase, 1973 to 1979, represents Bronfenbrenner's original inception of his theory in its undistilled format. The ecological approach to human development placed environmental contexts at the heart and soul of the human developmental process. Bronfenbrenner's key tenet or proposition at this stage of his theory was that human development took place within contexts, settings or enduring environments in which the child lived (Vélez-Agosto, Soto-Crespo, Vizcarrondo-Oppenheimer, Vega-Molina & Coll 2017:901). In this phase of his theory, Bronfenbrenner identified four levels of enduring environments which he named the microsystem, mesosystem, exosystem and macrosystem.

The second phase in the evolution of Bronfenbrenner's model occurred between the years 1980 to 1993. Bronfenbrenner reviewed his theory to account for a loophole he identified in the earlier version of his model. Here Bronfenbrenner paid special attention in explaining the role played by person characteristics in the course of development (Rosa & Tudge 2013: 248). As opposed to his earlier version which placed prominence on environmental influences as key to the development of the individual, Bronfenbrenner extended his views to place greater emphasis on the actual processes of individual development to specific environmental contexts over time. These ideas developed into the Process-Person-Context- Time model (PPCT).

The final phase in the transformation of Bronfenbrenner's model Phase 3 spanned the years 1993 to 2006. In this phase, Bronfennbrener completely overhauled his model from an ecological approach to human development to a bioecological theory/model of human development. Key to this upgraded version of the theory is the emphasis Bronfenbrenner placed on the notion of proximal processes (Ashiabi & O'Neal 2015:2). Bronfenbrenner went onto describe proximal processes as the engines of development (Bronfenbrenner & Morris 2006:118). Proximal processes refer to those powerful driving forces such as

persons, activities and objects with which the developing individual transacts within their given environmental contexts.

Another notable development in the Bioecological model is the inclusion of another environmental layer known as the chronosystem. The chronosystem is a time-related concept that Bronfenbrenner introduced to his model to account for passing time throughout an individual's development. Such key moments in the developmental process include events such as going to school for the first time and reaching adolescence to mention a few. Such key events in the life course of the developing individual represent patterns of transitions in the environmental settings and contexts that influence the development of the individual.

### **3.8.3 A model of connected reading**

The growth and pervasive use of ICT in the world have necessitated new types of reading modes which include reading on computer screens, tablets and mobile phones. A model of connected reading is one of the two models which will provide a theoretical lens for this study (Turner & Hicks 2015). It is a twenty-first-century model of reading which provides a framework for supporting adolescent reading in the digital era. This model recognises the centrality and influential role various technologies are playing in the ever-changing reading lives and experiences of adolescent learners today. The model analyses the supportive role technologies like computers, tablets and mobile phones can play in the development of reading skills amongst adolescent learners in both formal instructional and informal contexts. The model reimagines and reconfigures the reader and reading in light of technological developments taking place within the reading arena.

Digital reading is connected reading and the model is premised on three fundamental practices of digital or on-screen reading and these are encountering, engaging and evaluating (Turner & Hicks 2015b:42). According to Turner and Hicks (2015b:43), the practice of encountering happens when a connected reader contacts a particular text on a reading device. This may include receiving a text from a peer or surfing the internet, where readers skim and scan various web pages for content to read. The reader may even stumble across captivating reading content while scrolling through web pages or following recommended links.

Turner and Hick point out that after the encounter, the connected reader chooses between engaging with the encountered text. The practice of engaging with a text entails deciding

on the texts to read or discard and storing the chosen texts to read later offline. According to Turner and Hicks (2015b:43), another sub-practice of engagement in the actual reading of the text and indicators of an engaged digital reader are browsing, perusing text, ploughing in, using multimedia, marking, reacting, interacting, censoring and analysis and comprehension beyond a given text. Although Turner and Hick follow Wigfield and Guthrie's (2000) notion of engagement, they go a step further in accounting for how readers engage when reading a digital text. It is clear from the information that readers who make use of the special features that their digital texts present, are engaged readers. These features include embedded hotspots like hyperlinks to dictionaries, bookmarks, highlighting and annotating features and audio/visual and text capabilities of the digital texts being read. (See section 3.2.2 for a discussion of the engagement model of reading). The challenge of engaging adolescent readers using technological reading devices lies in capturing their interest to read because they tend to use these devices for communication, socialising and entertainment and not solely for reading. This challenge reiterates the importance of reading motivation (See section 3.1.4)

The last practice of connected reading as proposed by Turner and Hicks (2015b:43) is evaluating a text. Sub-practices of evaluating a text include determining value, judging, employing digital tools and managing distractions. Since it is assumed that connected readers form reading communities, they share texts that are worth reading based on their quality and usefulness. As a result, the cycle continues as readers encounter a shared text, engage with it, and then evaluate it.

The model of connected reading offers an ideal analytical framework for this study as it echoes the main aim behind this study, which posits that the dawn of mobile reading devices like e-book readers, tablets and cell phones have significantly transformed the reading lives of individuals, changing the way they access information and consequently, how and when they read (Turner & Hicks 2015a:3). The model advances that this reader reorientation brought about by technological advancement has led to a paradigm shift in how adolescent reading instruction should be approached.

It is apparent from the above information that this model dovetails nicely with this study as it seeks to empower adolescent readers to make effective and autonomous use of different reading technologies available to them. Also, the model locates the individual readers within a larger reading community and acknowledges a diversity of textual forms both digital and print (Turner & Hicks 2015a:5). In essence, the model shows that the



digital arena is the new space that transcends adolescent readers' lives and experiences daily, thus making it vital to capture narratives of readers' practices in this new technological milieu.

### **3.8.4 Engagement model of reading**

The third theoretical perspective that will guide this study is the engagement model of reading. One of the long-term goals of this study is to create independent and hopefully avid lifelong readers amongst Zimbabwe's adolescent learners. At the core of this thesis lies the premise that adolescent learners in Zimbabwe should employ their mobile devices for reading, even if confronted with a multiplicity of social or communicative functions on their mobile devices which seem more engaging than reading. In other words, it is about investigating the degree to which adolescent readers in Zimbabwe were ready to engage with their mobile phones as reading media ahead of other more enticing mobile device functions like taking pictures, videos and listening to music. Thus, the study adopts the engagement model of reading (Wigfield & Guthrie 2000) as the theoretical lens through which the research questions will be addressed and m-reading intervention will be designed.

The engagement model of reading has been selected to form the theoretical basis of this study. It is compatible with the purpose of the study, which is to investigate how adolescent learners can be intrinsically and extrinsically motivated to use their mobile devices to become 'autonomous' and 'self-governing' (Guthrie, Klauda & Morrison 2012:4) readers. The engagement reading theory identifies what makes a reader 'engaged' or 'disengaged' (Guthrie & Wigfield, 2000:46). The theory attempts to explain the factors which motivate and keep learners engaged to read. A strong relationship exists between motivation and engagement. Motivation refers to the intrinsic and extrinsic factors which drive learners to read or not. Engagement means deciding and choosing to continue to read if there are alternative and more enticing activities to take part in (Guthrie & Wigfield, 2000:47). Engaged readers have high attainment rates in school (Guthrie, Klauda & Morrison 2012:2).

Motivation to read can either be intrinsic or extrinsic. It leads to engagement. The engagement model defines the engaged reader as one who is driven intrinsically to read and sees reading as a social activity. Also, that will contribute to their intellectual, emotional and spiritual growth (Guthrie, Wigfield, Barbosa, Perencevich, Taboada, Davis, Scafiddi & Tonks 2004: 404). Intrinsic reading motivation has three dimensions and

extrinsic reading motivation has five dimensions (Wang & Guthrie 2004 in McGeown 2013:3). Intrinsic reading motivation entails curiosity, preference and challenge. Extrinsic reading motivation dimensions, on the other hand, include competition, recognition, grades, compliance and social worth.

It was envisaged that the design of this study would balance the dimensions of both internal and external drivers to reading motivation in an attempt to derive optimum engagement from participants. Wang and Smith (2013:127), in a study on reading and grammar learning through mobile phones, caution that '...motivating students to use their mobile phones [to read] is an ambitious task...' They go on to recommend that mobile reading projects should devise ways of incentivising readers and enhancing reading motivation as they have to contend with the already prominent allure of social networks and games on mobile phones (p128).

The notion of engagement has become the subject of various interpretations within the reader engagement model and as a result, engagement has come to represent many ideas. This study was more concerned with the social interaction concept of engagement which defines the engaged reader as a 'frequent or dedicated [reader]' (Guthrie et al 2012:4). One common indicator or measure of engagement in this regard is to take into consideration the volume of reading and the diverse range of texts read by the individual while outside school (Guthrie et al 2004: 404). Further, the engaged reader is characterised as being energetic, conscientious and without aid, puts effort and is absorbed in reading.

However, engagement can be a relative and subjective notion and researchers need to tread carefully. This is aptly illustrated by Milliner and Cote (2015:406) who conducted a year-extensive study of an extensive reading programme on mobile devices among Japanese university students. Quantitatively, the results showed very low reading engagement amongst the participants, that is, against a benchmark of 50 000 words read per year, only an average of 13 502 words was attained. Qualitatively, however, the results painted a different portrait altogether. Through a post-study questionnaire and focus group discussions, it was inferred that students had a positive perception of mobile e-books and reading on their smartphones. The overarching design of this study was action research, which is cyclical and flexible in approach. Thus, such discrepancies in findings could be accounted for by engaging in the second cycle of data collection, having considered the previously over sighted variables.

The disengaged reader, on the other hand, is the opposite of the engaged reader. The disengaged reader is likely to spend less time on a reading activity and is less motivated to read (Klauda, Wigfield & Cambria 2012: 296). Wigfield et al. (2008:404) make use of the term 'disaffection' to describe the disengaged reader. This type of individual is withdrawn, indifferent, uninterested, reluctant, anxious or lethargic and will turn down any opportunities to read (Furrer & Skinner 2003: 149). In essence, therefore, this study sought to adopt MRDs to promote reading engagement while eliminating where possible disaffection amongst adolescent readers in Zimbabwe.

At the end of the day, the two models, the model of connected reading and the reading engagement model offered an ideal analytical lens through which the use of mobile reading devices and mobile reading amongst Zimbabwe's adolescent learners was investigated.

### **3.9 Conclusion**

In this chapter, an extensive outline of the relationship that exists between reading and technology has been provided. The use of mobile reading devices, mobile reading, reader engagement, connected reading, reading habits and mobile reading applications were meticulously examined to adequately locate this study within reach of relevant literature and to establish a firm theoretical footing for the collection of data. The following chapter focuses on the research methodology adopted for the study.

## **CHAPTER 4 RESEARCH METHODOLOGY**

### **4 Introduction**

This is a qualitative action research (QAR) study that sought to investigate the extent to which a group of juvenile learners in a Zimbabwean private college were ready and willing to use their mobile telecommunication devices like smartphones and tablets as MRDs to read for leisure ahead of other enjoyable functions available on their mobile devices. The study examined the various ways in which a school-based mobile reading programme that uses MRDs such as mobile phones and tablets could be used to sustain and promote a lifelong culture of reading among a group of adolescent learners in Zimbabwe. This chapter outlines and justifies in detail action research as the overarching methodological approach which informed the research plan adopted to execute the purpose of the study. The participants, sampling techniques used and data collection techniques used are also described in detail. In this chapter, additional sections also discuss the data analysis strategy, ethical considerations in mobile reading research and issues to do with the credibility and trustworthiness of the study.

#### **4.1 Framing qualitative research within the context of mobile reading**

Qualitative research is described as being any mode of social inquisition that concentrates on how individuals deduce and create or construct the meaning of their lived experiences and how these experiences are shaped or influenced by the environment in which the people live (Creswell 2014:234). In the same vein, this research endeavour is a form of social inquiry that sought to examine and arrive at detailed narratives of how a group of adolescent learners in Zimbabwe were prepared to embrace new 'cultural technical artefacts' like MRDs in constructing their identities as readers in today's technologically-driven milieu (Motteram 2013:177). Also, the researcher sought to generate together with the participants' conversations on how they used mobile reading devices to define their reading experiences in school and away from school. Following the qualitative research tradition, the researcher could draw wider inferences on the role MRDs play in reconfiguring the reading practices of a group of adolescent learners in Zimbabwe and enhance their understanding of how mobile reading technologies can be deployed in ways that engage learners to read more. The qualitative research tradition illuminated the problem of this study which used an Action Research (AR) approach that drew upon a variety of interpretive methodologies to mine data on the participants' mobile reading habits. Such methods include interviews, focus groups and mobile reading journals all of

which connect and talk back to the fertility, gravity, nuance, wealth, milieu, depth, multi-dimensionality and complexity of the mobile reading experiences of a group of Zimbabwean teenagers.

Qualitative research in the eyes of Denzin and Lincoln (2011:3) is a revelatory, exploratory, explanatory and true-to-life approach to answering some of the world's constantly nagging and pertinent questions. Indeed, MRDs have given rise to new kinds of true-to-life (naturalistic) social settings for adolescent learners to engage in reading, which is both physical and digital. MRDs provide natural reading contexts that are woven into the daily reading lives of adolescent learners in Zimbabwe. MRDs form a type of naturalistic setting allowing adolescent learners to continuously move in and out without necessarily disconnecting from it. It is further the contention of this study that Zimbabwean adolescent learners are creations of a cyber-environment where digital technologies like smartphones and tablets are an integral part of their human existence. As a result, only the naturalistic mode of inquiry can adequately capture and excavate the meaning of how these youths make sense of their mobile reading experiences as they shuttle between the physical and digital reading spaces in both formal and informal learning contexts. It is considering the foregoing that this study employs qualitative research methodologies, which allowed the researcher ample opportunity to connect and network with the participants within their mobile reading lives at school and home. Qualitative research methods, therefore, allowed for the generation of explanations on how these new and omnipresent MRDs can contribute to reconfiguring the reading habits of a group of adolescent learners in Zimbabwe.

#### **4.1.1 Research ontology**

Research ontology represents that philosophical endeavour that involves the search to understand reality and its nature (Ormston, Spencer, Barnard & Snape 2013:4). Ontology is concerned with what we understand and that which can be understood about the world. Ontological questions are concerned with the actuality and certainty of things, the genuineness and authenticity of things, the independence of social reality to human ideas and if there is a single common reality or many social realities (Ormston et al. 2013:4). Ontological questions are important in helping to reduce vagueness (Scotland 2012:12). Besides, ontological questions help the researcher recognise other viewpoints that tell different stories other than the one the researcher had imagined. Furthermore, ontological assumptions lead to epistemological assumptions, which in turn, lead to the unfolding of

an appropriate methodological approach for the study (Dieronitou 2014:4). This study is informed by a relativist ontological stance. It holds that 'there are multiple realities' (there is no single reality) and 'a series of social constructions which are also subject to multiple interpretations' (Guba & Lincoln 1994:110 cited in Scotland 2012:11).

The ontological position of this study is anchored in the belief that mobile devices represent a new form of a cultural technical artefact that is intricately interwoven into the social fabric and lives of urban adolescents today. It is the further contention of this study that mobile devices are naturally endowed with multiple functionalities that define popular culture today and seem to extend and broaden the personal, social, physical and learning spaces of adolescents including Zimbabwean adolescent learners. As a result, adolescent learners actively participate in the construction of this reality as they interact with mobile devices in their daily lives. Mobile reading is one of the many new functional realities of mobile devices that learners need to construct and make sense of daily. Hence Zimbabwean adolescent learners seem to be continuously constructing bridges between these multiple spaces or realities mediated by their mobile devices. The mobile reading intervention designed in this study seeks to reduce the barriers to mobile reading and generate interest to engage in mobile reading amongst the research participants (Chew & West 2015:1). The qualitative research approach becomes useful in drawing up complex descriptions of how adolescent learners in Zimbabwe make deliberate and informed choices to engage in sustained mobile reading behaviours on their mobile devices when confronted with this new facet of reality.

Mobile devices have led to the creation of a whole new world, which is a mixture of overlapping physical and virtual learning contexts that learners need to contend with daily (Dudeney, Hockly & Pegrum 2013:338). Mobile devices are multi-functional technological tools that have already created multiple realities for the user. Users, therefore, create their reality by deciding which reality to escape to or away from at any given time. The mobile reading initiative presented in this study is one multiplicity of utilities that will confront adolescent learners daily as they attempt to navigate the multiple and hybrid learning spaces mobile devices present in their lives.

#### **4.1.2 The research epistemology**

The origins of the word 'epistemology' lie in the Greek verb 'epistame' meaning to know something very well that is to have internalised something by experiencing it (Dieronitou

2014:5). Epistemology, the theory of knowledge, deals with ways of knowing and qualifying what constitutes the truth and how the truth can be arrived at. In other words, this is a philosophical principle that guides and informs researchers' actions regarding the kinds of knowledge that are possible and how these kinds of knowledge can be obtained. Knowledge should be gathered and disseminated using valid and means that are conventionally agreed upon (Scotland 2012: 9; Ulum 2016:20). Epistemology raises several questions concerning knowledge, the politics of control and influence in creating knowledge and the process of how knowledge comes into being (Vasilachis de Gialdino 2009:3). Locating one's epistemological position is regarded as a 'mediating strategy' that guides and gives the qualitative researcher direction during an assortment of available orientations and methodologies (Yin 2011:18).

The epistemological approach of this study is grounded in the constructivist research paradigm. The key strength of the constructivist paradigm is that it facilitates and provides for the cooperative construction of knowledge between the researcher and their participants. This fundamental strength of the constructivist stance in qualitative research lies in the plurality of contributions provided by the participants in any given inquiry (Vasilachis 2011:14). Thus, the co-construction of meaning between researchers and their participants with dissimilar ways of knowing leads to the creation of legitimate knowledge. Kissinger (2011:7) intimates that the constructivist stance helped him build a thoroughly descriptive account of the mobile e-book learning experiences of his participants. Furthermore, Chew and West (2015:5) note that a gap exists in terms of qualitative examinations 'which scrutinise social norms and learning experiences in various cultural contexts in mobile reading research'.

In this particular mobile reading study, the constructivist paradigm becomes pertinent as the researcher undertook to learn with and from the participants about their mobile reading lives by capturing the authentic mobile reading experiences of the adolescent learners using literacy practices interviews, focus groups, mobile reading journals as participant journals and researcher journals. Additionally, the participants concurrently documented generated and created narratives of their mobile reading lives and experiences to increase their learning. Therefore, while the research participants sought to make sense of the new reading media and platforms available to them, the researcher relied on the qualitative methodology chosen to enhance their understanding of the mobile reading journeys undertaken by the Zimbabwean adolescent learners.

It is clear from the foregoing sections on ontology and epistemology of the study that the two are critical resources for doing qualitative research as they give the study a firm philosophical grounding or roots (Maxwell 2011:13). It is this firm philosophical foundation that has led to the selection of action research as the principal methodology for this study.

## **4.2 Action research**

This study adopted the action research design as its overarching methodological framework. Action research was selected as the primary methodology for this study largely because it is practical in as much as it is theoretical. Action research allows the marriage of theoretical research principles with practical action to generate new knowledge (Somekh 2008:4). This inherent quality of action research ideally enabled the researcher to apply systematic and empirical rigour to a school-based mobile reading intervention that used mobile devices to attempt to shape and influence adolescent learners' reading practices in Zimbabwe.

The next section discusses in-depth the rationale and justification of the selection of action research as the methodological framework for the study. Action research will be defined and the characteristics of action research that have formed the guiding principles for this study will also be discussed. Also, a model of action research is illustrated. The discussion closes with a critique of action research and the strategies the researcher adopted to overcome these perceived flaws in the execution of this study.

### **4.2.1 Defining action research**

Social psychologist Kurt Lewin (1946) is credited with being the founding father and originator of action research (Tekin & Kotaman 2013:85). Lewin advocated a practical research approach when he famously remarked that research that led to nothing except the production of books is inadequate (Cohen, Manion & Morrison 2007:298). Lewin's ideas are today embodied in what has commonly come to be known as the action-reflection model in action research theory. The model captures the most rudimentary definition of action research as an ongoing cyclical process of planning, acting, observing and reflecting (Klein 2012:1). Thus, action research was born out of Lewin's conception that there is "no action without research and no research without action" (Chisaka & Mukabeta 2013:16). The earliest application of action research to educational contexts is reported to be in the work of Stephen Corey (1953) who understood action research to be scrutiny of



one's teaching which resulted in changed and improved practices (Nugent, Malik & Hollingsworth 2012:4).

The foregoing conception of action research in education has held almost constant since the time of Corey. In the words of Hadley (2003:ii), this has been an astonishingly longstanding and steadfast designation of action research. Action research is aimed at developing change in organisations such as schools, offices or hospitals. It involves close teamwork between the researcher and the participants and usually involves a case study (Gray 2018:33).

For Burns (2010:2), action research involves 'a self-reflective, critical and systematic approach to exploring one's teaching contexts'. Thus, the researcher has drawn on action research as a methodological framework to allow a group of adolescent learners to engage in mobile reading while simultaneously learning from and reflecting on their practices when reading using MRDs. Action research allows the researcher to reflect on his or her philosophy of teaching reading to a group of adolescent learners in a Zimbabwean secondary school. Furthermore, the emergence of mobile devices as reading devices poses a new pedagogical challenge and opportunity, which needs to be conceptualised within a purely Zimbabwean context. Action research enabled the researcher to empathise and engage in critical self-reflection into the dynamic role mobile devices play in the educational and social lives of adolescent participants of this study.

Action research has not only been applied to the theory and practice of education but rather has been employed in a diverse range of professional fields like health care, international development and social work (Huang 2010:95). As a result, action research is also described as a form of 'practitioner started research or practice-based research', undertaken by practitioners who want to make a positive difference to their professional contexts or settings (Herr & Anderson 2012:3; McNiff 2013:23). In other words, action research can be regarded as a professional development approach that allows practitioners to independently identify and research a problem related to their professional practice. The practitioner-researcher design facilitates possible actions directed at solving the problems they face. Practitioners learn from and through their experiences and they can continually refine their professional lives and context through these systematic and reflective actions.

It is acknowledged that action research has limitations. It can take longer to complete than other research methodologies. This can lead to a turnover of possible persons acting as

participants but with this study, it did not happen because all the participants were learners at a school and no-one left the school. Another problem could be generalisation as action research projects are often unique (Gray 2018:335). The research to be described in this study is unique. But, as it deals with information and communication technology which will become more important in the teaching of young people, thus, the results of the study could be used in more school situations in future

The government of Zimbabwe through the 2015-2022 national curriculum framework for primary and secondary education recognises and recommends teacher action research as a legitimate mode of continuous professional development to enhance teacher competence and the quality of education in Zimbabwe (Ministry of Primary and Secondary Education 2015:3). Further to this, the government of Zimbabwe expects all schools to use ICTs in teaching and learning to advance technology to achieve quality education (Ministry of Primary and Secondary Education 2016:95).

#### **4.2.2 Characteristics and guiding principles for the mobile reading action research study**

Literature is replete with criteria for conducting good action research. Action research has its unique defining characteristics and core guiding principles. These characteristics and principles are important as they guide the action researcher in developing an action research blueprint that ensures the attainment of rigour and depth in the practice of action research. In designing this action research study, the researcher, thus, stands guided by some principles articulated in the action research literature.

Reason (2006:188-189) suggests four characteristics that guide the choice and quality in action research. These characteristics are as follows:

- 'Action research is concerned with addressing practical problems
- Action research encompasses many ways of knowing
- Action research is a participative and democratic process that seeks to research with for and by people and
- Good action research does not reach and arrive fully-fledged in a clear research design separate from the stream of life but evolves with time as communities of inquiry develop within communities of action'.

Huang (2010:99) and Liu (2013:108) elaborate a similar taxonomy for the conduct of action research of the highest pedigree. In a transnational action research project on the use of technology in language teaching, Burns and Kurtoğlu-Hooton's (2016:11) stand is

guided by Somekh's (2006:6-8) theoretical framework. The framework outlines six core principles of a good action research design. Somekh contends that good action research:

- 'integrates research and action in a series of flexible cycles including holistic rather than separate steps,
- involves the partnership of participants and the researcher,
- involves the development of knowledge and understanding of a unique kind,
- involves a high level of reflexivity and sensitivity to the self in mediating the entire research process,
- is explorative and engages with a wide range of knowledge and
- engenders powerful learning for participants through combining research with a reflection on practice'.

The study accommodated an amalgamation of both sets of guiding principles as criteria in shaping the study. These principles were particularly useful in informing how data would be generated and events of the study would be planned into systematic self-reflective spirals of action.

#### **4.2.3 Action research - a critique**

Several criticisms have been levelled against the action research approach. It is often condemned as an illegitimate form of scientific and empirical enquiry through which valid truths cannot be arrived at. Huang (2010:96) bemoans how this attitude has led to the marginalisation of action research within the academy. The researcher was mindful of these perceived flaws of action research and many checks and balances were crafted within the internal structure of this study to ensure that it adhered to best practices of conducting action research.

Action research has been dismissed as a 'soft option' for research because it lacks rigour, validity and is easy to conduct (Hine & Lavery 2014:164). Other critique includes the view that action research findings are not generalizable (Koshy 2005:32). Another negative claim is that action research is a research method and not a methodology (Klein 2012:5). Besides, the 'loneliness' or 'solitary nature' of action research is also considered a disadvantage and this becomes even more exacerbated when the action researcher also has to cope with difficult circumstances like lack of material resources (Smith & Robolledo 2018:4). In response, Liu (2013:110) argues that the critics of action research have made a futile effort to discredit it by attempting in vain to translate its characteristics into weaknesses. Klein (2012:5) discounts the critique as mere myths which she should be demystified.

Burns and Westmacott (2018:16) recommend that the action researcher should be systematic and iterative in their approach. Ideally, the action researcher should be guided by a theoretical action research framework like the action-reflection model, which is iterative and offers an empirical process which action researchers can apply to addresses the aims of what they want to achieve. Further, they hasten to warn that researchers must not be restricted by these models but rather they should use them to articulate and deepen their theoretical and practical knowledge (Burns 2010:14). Such a strategy is ideal as it guides the researcher to contemplate potential problems and devise strategies to overcome the perceived flaws of action research. Furthermore, the researcher implemented a 'structured reflection' approach as a strategy to mitigate the weaknesses of action research (Griffie 2012:116). Structured reflection enables the researcher to develop an open mind to analyse and listen to differing points of view and be responsible enough to realise the implications of their actions on the research.

Despite its disadvantages, action research remains very important to the improvement of the theory and practice of education. The researcher consequently decided to engage in action research to actively evaluate and reflect on how mobile devices can be used to support and effect the necessary change in the literacy practices and behaviour of a group of teenage learners in Zimbabwe.

#### **4.2.4 Action research and the mobile reading intervention**

The definition of action research used in this study is grounded in Burns and Kurtoğlu-Hooton's (2016:10) conception of the action research process. The duo characterise action research as a 'regenerative and renewal process' of critical self-insight undertaken by teachers. Their point of departure from the more traditional notions of action research is that they further view action research as a vehicle that facilitates the exploration and investigation of recent innovations and changes in instructional practices. It is this contention that creates convergence and consensus between the ideas of Burns and Kurtoğlu-Hooton and this particular research undertaking. This action research study was conceived to improve the researchers' professional practice as a teacher by exploring in-depth his understanding of how mobile technologies can be used to support them in class and out of class reading actions of teenage learners in Zimbabwe. The framework for action in this study is premised upon a mobile reading initiative that was been designed to address the study's research problem.

The mobile reading intervention designed for this study represented the 'action' to be researched in this action research project (Alidou & Glanz 2015:31). The chosen action satisfies the interventionist nature of action research as it is a school-based mobile reading initiative that sought to investigate adolescent reading practices in Zimbabwe (Bhattacharjee 2012:107; Herr & Anderson 2012:6). Therefore, the role of the researcher in this study was also interventionist (Fabian & MacLean 2014:3). The intervention designed for this study was introduced as a book club that used smartphones and tablets as its sole reading media. The mobile book reading club was to be held once a week over twelve weeks at the research site. The mobile reading intervention in this study was designed to achieve several outcomes that dovetail into the overall multilateral agenda of this action research project of being liberating, empowering, participatory, collaborative, enlightening and change-oriented (Griffie 2012:110). The first goal of the mobile reading intervention was to empower the participants of this study to give preference to reading on their mobile devices if confronted with numerous choices on their mobiles. Moreover, the intervention sought to broaden the in-class and out-of-class reading experiences of the participants by deliberately enlightening them to alternative forms of reading media they could exploit. The reading intervention also connected the researcher and participants on their journey of building a community of readers through mobile social networks afforded by their MRDs. Lastly, the intervention sought to change the attitude and perceptions of the participants towards leisure reading.

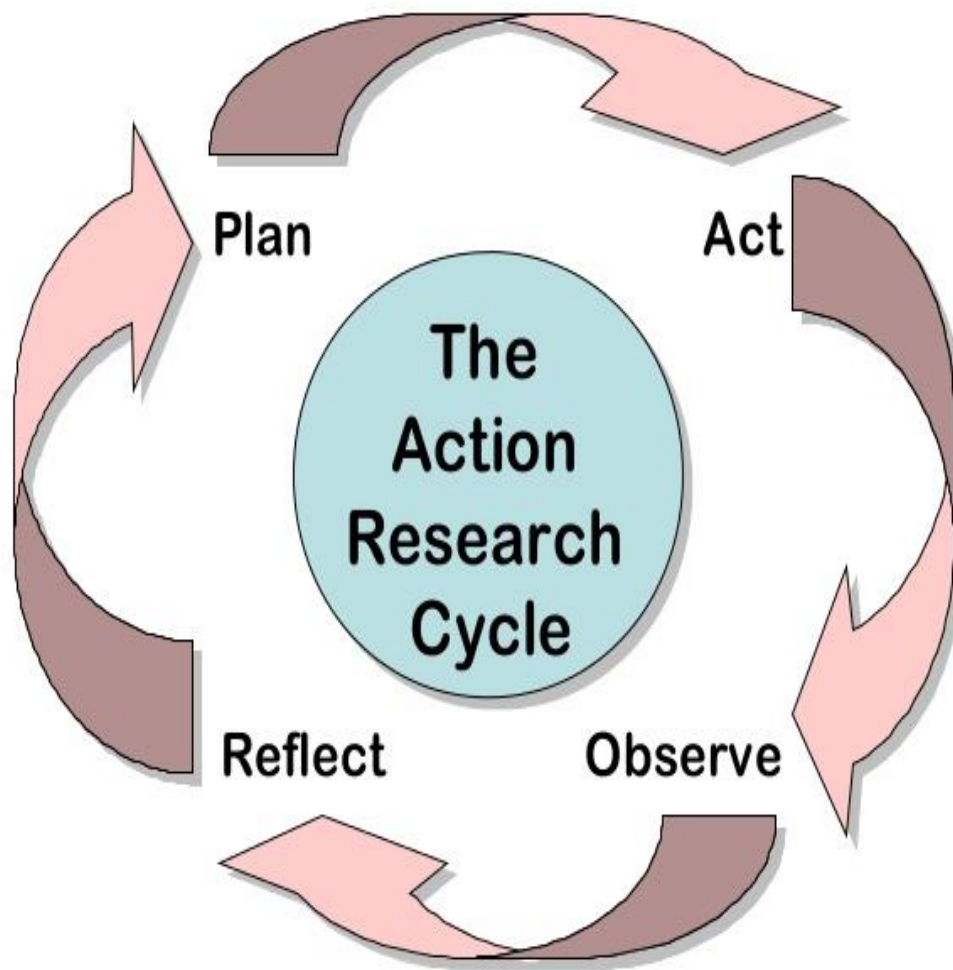
### **4.3 Methodology**

This section spells out the methodological framework adopted in the study. The action-reflection- model which guides the study will be discussed. The research context, research participants and selection criteria of the participants will be highlighted in this part of the study. The data collection methods and instruments are also discussed along with the analytic methodology in this section.

#### **4.3.1 The action-reflection model**

This study is built upon the action-reflection model. It is a model premised on the seminal work of action research founding father Kurt Lewin (1946,1948 cited in Cohen, Mannion & Morrison 2007:310). The action-reflection model which was further developed and popularised by Kemmis and McTaggart (1988) outlines the four basic steps of the action research cycle. The steps to be followed when conducting action research are plan, act, observe and reflect (Kemmis & McTaggart 1988 cited in Burns 2010:9; McNiff 2013:63).

**Figure 4.1: Cyclical Action Research Model**



Based on Kemmis and McTaggart (in Burns 2010:9)

The Kemmis and McTaggart model is considered a classic in action research theory (Burns 2010:8). The model is also renowned for being simple and sequential thereby allowing systematic progress (McNiff 2013:63). Furthermore, the spiralling and iterative nature of the model allows for structured self-reflectivity thereby implying a continuous and on-going process of improvement on both the research process and the problem for which the action is being taken (Nugent, Malik & Hollingsworth 2012:19). As a result, the design of this study is mapped into three distinctive phases which correspond with the four steps of the action-reflection model. These phases are the pre-mobile reading phase, the while mobile reading phase and the post-mobile reading phase.

When one looks at the action research model, it seems to be an orderly process and that everything can be well-planned. This does not always happen as the process can go forward or backward or even in all directions (Gray 2018:325).

#### **4.3.2 The research context**

This study was conducted at Forward in Faith Christian College formerly Christ for Zimbabwe College. Forward in Faith Christian College is a private/independent co-education Christian institution located in the low-density suburb of Belvedere. The school is conveniently located less than five kilometres from Harare's central business district. Because of its centrality, the school attracts between one hundred and fifty to one hundred and eighty learners from all over Harare's low, medium and high-density suburbs. Forward in Faith Christian College was founded in 2007.

Forward in Faith Christian College started as a low-fee-paying private school meant to serve the urban poor (Tooley & Dixon 2005:1). According to the Vice Principal of the school, the school is currently in a transitional phase where it is morphing from being a low fee-paying private school into an elite international private school. Consequently, this has seen the school recruiting more learners from the middle income to upper-income bracket since it rebranded from Christ for Zimbabwe College to Forward in Faith Christian College in 2016.

In terms of technological infrastructure and support to learners, the school offers Computer Science as a curriculum subject. The school has a well-equipped computer laboratory. The school is also connected to the internet through a fibre optic connection. Internet access is restricted to staff who use it to research and prepare for lessons. It is only the senior learners in Lower sixth and Upper sixth forms who are allowed to carry technological devices like laptops to school. Form 6 is the last school year in the Zimbabwean education system. Laptop use is strictly for academic purposes. Mobile phones and tablets are prohibited at the school. All mobile devices found in the possession of learners are confiscated up and locked up in the school safe. (See appendix D for approval of the principal to research Forward in Faith Christian College.)

#### **4.3.3 The participants**

The participants in this study comprised form 2, form 3 and form 4 learners enrolled at Forward in Faith Christian College in 2018. They were between 14 and 17 years old. The group had a total of twenty-three learners who were drawn from a larger pool of fifty-

seven participants who suited the desired demography of the study. The group of participants consisted of 10 male and 13 female participants who all willingly volunteered to take part in the study. Since Forward in Faith College is in the process of rebranding and repositioning itself in the educational marketplace, learner turnover has been high in the school. This has resulted in the assemblage of a dynamic group of learners. This was a heterogeneous group of learners who come from suburbs like Hatfield, Avondale, Belvedere, Marblereign and Warren Park. Also, the school has a flexible enrolment policy and learners are not often subjected to rigorous pre-enrolment rituals like entrance tests and placement assessments. Recruitment is based on one's ability to pay the prescribed fees. As a result, the school brings together a diverse group of learners who most probably possess a lot of social and academic individual differences. These differences in academic backgrounds influenced group cohesion (or lack of it), group dynamics and power relations within this group of participants.

The age range of learners in this group of participants was fourteen to seventeen. Despite this wide gap in age range, the participants share a homogenous urban culture which likely affects their reading practices outside school. This urban culture emanates from the strong urban background the participants originate from. For this group of participants conforming to the norms of this urban culture means being cool and acceptable to the peer group. The socio-cultural norms of this group of participants are influenced by Zimbabwean popular culture which revolves around an urban music cult characterised by genres such as hip-hop and 'Zim dancehall' (Viriri, Viriri & Chapwanya 2011:82). The adolescent participants' lives are also influenced by an adherent love for mobile digital technologies (Gwaka 2018:5).

Consequently, the participants in this study can best be described as the 'urban grooves' generation on the one hand and as the mobile generation conversely. As a result, these socio-cultural influences become responsible for shaping the world view of the learners and how they make sense of the world around them. The participants, therefore, construct their identities around the music they listen to and the mobile phone in their hands (Mateveke 2013:212). In other words, their sense of fashion and mobile technology use and reading practices become an extension and appendage of this urban culture.



#### **4.3.4 The selection of participants**

The participants of this study had uniquely diverse personalities and were a complex group. This diversity of the group of participants is important as it helped in the generation of wide-ranging narratives on the mobile reading experiences of the participants (Ritchie, Lewis & Elam 2011:80). The participant selection criterion for this study was informed by the convenience sampling technique. Convenience sampling is also commonly known as accidental sampling or opportunistic sampling (Cohen et al. 2007:102). Convenience sampling entails selecting a group of participants based on factors like it is a quick sampling method, a group of participants is readily available and ease of access to the participants. Convenience sampling is common in qualitative research because the group of participants is already assembled and is easy for the researcher to have access to them (Efron & Ravid 2013:62). It is the opinion of this researcher that the learners at Forward in Faith Christian College fit Cohen et al's (2007:102) portrait of a 'captive audience,' thus, making them ideal for convenience sampling. Moreover, convenience sampling is appropriate in action research as it enables the researchers to make use of their professional networks to draw convenience samples to inspire their research and improve practice (Tracey 2013:135).

However, convenience sampling has been criticised for lacking accuracy and rigour because of its unclear sampling strategy, which is normally premised on the ease of access (Ritchie et al. 2011:81-82). While this might be the case, the group of learners selected to participate in this study was assembled over a prolonged period. The learners joined the Forward in Faith at different points in time between the years 2016-2018 as the school had a high rate of learner turnover during this period. Therefore, while the immediate selection criteria of the participants for the study might have been conveniently decided upon, this is a group that assembled itself randomly and naturally over time.

#### **4.3.5 Data collection**

Data collection for this study took place in three stages which resemble the four steps of the action research process outlined above. The researcher used observation and reflection during the data collection process. The three phases are (i) Pre-mobile reading phase, (ii) the Mobile reading phase and (iii) the Post-mobile reading phase. Each phase of the data collection process had its data collection technique. Data collection instruments like the literacy practices interview, mobile reading journals and focus group discussion will be

used to gain deeper insight into the mobile reading habits of adolescent learners in Zimbabwe.

(i) Pre mobile reading phase

This is equivalent to the planning stage in the action-reflection cycle. In this stage, the researcher is considered to be doing 'reconnaissance' of the existing state of affairs through self-reflection, description and explanation of the identified research context (Mills 2014:58). The pre-mobile reading phase set the study in motion and McNiff (2013:90) describes this stage as involving four practical steps which are:

- 'reviewing our current practices,
- identifying an aspect we wish to investigate,
- asking focused questions about how we can investigate it and
- imagining a way forward'.

The objective of this first phase in the data collection process was to gain deeper insight into the existing reading behaviour and habits of the teenage participants before they were introduced to the mobile reading initiative. This was done using the 'literacy practices interview' model developed by Moje and Tysvaer (2010:31). The instrument was adapted to suit the goals of the study and the literacy circumstances of the participants.

The [literacy practices] interview can be best described as a 'deliberate' and 'informed' face-to-face conversation in which a researcher engages with the participants of their study to elicit a 'vivid picture' and gain an in-depth understanding of the participants' reading behaviours (Agostinone-Wilson 2012:22). Moje and Tysvaer (2010:31) define and articulate the purpose of their instrument as:

*'... informal assessments that elicit information on [adolescent] learners' reading and writing activities including their free time reading habits, their access to books and their attitude towards reading and writing'.*

The literacy practices interview was used on a one-to-one basis with all twenty-three participants in the study. Interviews are a common qualitative data collection technique. They have been used in some studies focusing on the literacy practices of participants because interviews explain comprehensive information concerning the many and varied literacy practices of individuals and build a greater understanding of what can be done to improve literacy (National Adult Literacy Agency 2010:18). The interview as a data collection technique is described in research literature using the metaphor of the 'traveller'

and the 'miner' (Kvale 1996 cited in Legard, Keegan & Ward 2003:139). The 'traveller' metaphor of the interview is constructivist in inclination as the interview is compared to a journey where both researcher and participants create and negotiate meaning during the interviewing process.

The literacy practices interview is a mechanism that gave the adolescent participants a chance to express in their words their pre-mobile reading experiences with the researcher. It is this opportunity for self-expression that afforded the research participants the literacy practices interviews which illuminated and nourished the data collection process. This also ensured a close fit between the words and actions of the participants (Taylor, Bogdan & DeVault 2016:10). In turn, the researcher was also able to 'mine' unrefined and uncontaminated 'nuggets of data or meanings' of the adolescent learners' reading lives before the mobile reading intervention was introduced. These experiences included their motivation, engagement, attitudes and perceptions towards reading for leisure. Once the situational audit using the literacy practices was completed, the mobile reading intervention was implemented allowing the action cycle to move further.

(ii) During mobile reading

This was the second phase which equates to the action and observation steps in the action-reflection cycle. In this stage of the study, the participants were introduced to the mobile reading intervention. The researcher used the BYOD model of mobile learning to deliver the mobile reading intervention (Lawrance et al. 2013:15-16). In the BYDO model, those learners who have their smartphones and tablets were allowed to use them as their MRDs to make the mobile reading experience a truly personal experience. The mobile devices were preloaded with reading material from Worldreader's free mobile reading application to transform them into MRDs. The mobile reading initiative was introduced as a book club that ran for twelve weeks or one school term.

Here, the mobile reading actions of the participants were documented in the participants' mobile reading journals. These mobile reading journals constitute a form of 'constructed' or 'invited' text used in qualitative research, where the researcher and the participants recorded together individual narratives of all their mobile reading experiences (Barker, Pistrang & Elliot 2012:126). The researcher invited the participants to keep mobile reading journals as written diaries. The mobile reading journals acted as aide-memoir to the participants as they recorded their emotions while they engaged in mobile reading. These

mobile reading diaries also helped the researcher in their assessment of the emerging data. A distinct advantage of the participants' journal in action research is that it is an ideal tool for monitoring the 'action' (McNiff 2013:106). Here, the actions of the participants being monitored were their mobile reading experiences. This flexibility allowed participants to articulate their thoughts in the mode they felt most comfortable expressing themselves in. The mobile reading journals were important as they gave the learners ample occasion to continuously record and introspect on their perceptions, attitudes and feelings towards reading for leisure over time as they engaged in the mobile reading initiative (Burns 2010:89; McNiff 2013:108).

The researcher maintained a reflective journal in which he made visibility and acknowledged his mobile reading experiences, thoughts, feelings, emotions and reflection-on-action. This reflective journal was particularly useful in capturing the researcher's and participants' formal and informal conversations, joys and frustrations regarding mobile reading. The 'critical self-reflective journal is an important heuristic tool' and 'quality assurance' technique in qualitative research, which is characterised by a deep process of writing and sharing what is transcribed with others (Ortlipp 2008:696). Two aspects stand out in this regard; these are the creation of 'self -reflectivity' and 'transparency' in the research process (Vicary, Young & Hicks 2016:1). In this study, the journal was kept to satisfy the three basic purposes of keeping a self-reflective journal as outlined by (Kaun 2010:144), that is, 'to document the researcher's role, triangulate the data and use the journal as a communicative act'. Communicating one's feelings is an important practice in qualitative research as these feelings can later give deeper insight into the data collected (Yin 2011:151).

### *(iii)* Post-mobile reading phase

This phase marked the start of the reflection stage in the action-reflection cycle. In this phase, a task-based evaluative focus group discussion was employed to assess the influence MRDs had on the mind-sets and opinions the young participants held towards reading for pleasure. Onwuegbuzie, Dickinson, Leech & Zoran (2009:2) define focus group discussions as a qualitative technique of collecting data that involves the engagement in conversation of a small group of people on a particular topic. The goal of focus group discussions is to elicit from participants hidden beliefs, opinions, perceptions, stories, discourses and experiences (Millward 2012:416). In educational research, the focus group aims to provide an 'empowering and action-oriented' resource, which can be

used to 'complement and enrich' the data gathered through other methods by generating and including learner input into the outcome evaluation of an educational programme or innovation (Ryan, Gandha, Culbertson & Carlson 2014:2). At the end of the twelve-week mobile reading initiative, an evaluative task-based focus group discussion was used to complement data from the mobile reading journals and literacy practices interviews to help gain further insight into how the group of adolescent learners reacts to MRDs as part of their reading lives.

The participants were divided into two focus groups made up of twelve and eleven members, respectively. Each group was interviewed in separate sessions. The group sessions were held in the same room and at the same time as the mobile reading book club to create a permissive, non-threatening, comfortable, safe and familiar environment for the participants to actively contribute to the discussion (Liamputtong 2010:3). Literature is awash with the numerous justifications outlining the appropriateness of focus group discussions as an effective and efficient qualitative research tool. However, justifications on the suitability of focus group discussions as a qualitative research instrument are best captured and described using ten adjectives all beginning with the letter 'S'. Synergism - (the collective effort of the group), Serendipity - (full development of ideas), Snowballing - (the response of one participant triggers chain responses), Stimulation - (ideas generated as excitement increases), Spontaneity - (naturalness of responses), Security - (the strength and safety the participants feel to make contributions as part of a group), Specialisation - (focus on a particular theme is maintained), Speed - (quick way to gather multiple responses), Scrutiny - (all responses are thoroughly and exhaustively interrogated through open discussion) and Structure (Catterall & MacClaran, 1997 cited in Millward 2012:415). From an ontological and epistemological standpoint, the focus group discussion pays attention to the voices of the participants in everyday life, thereby allowing the generation and collection of collaborative data and the observation of a broad range of realities simultaneously (Mack et al 2011:51).

The researcher moderated the focus group interviews to ensure that all the participants felt at comfortable and ease. Furthermore, this was done to ensure that no single participant dominated the conversational discourse. In each session, the participants were given a task to write a letter to an imaginary friend detailing their reflections on their mobile reading experiences. The 'unsent' letter was chosen as a form of expression for the focus group task as it is an ideal medium of expression for intimate details and allowed for the

uninhibited outpour of thoughts, feelings and emotions of the participants regarding their mobile reading experiences. Once the letter-writing task was completed, each participant was allowed to read their letter to the group. This was done to avoid a few members of the group dominating the discussion and stimulate the generation of discussion on socially shared views regarding mobile reading (Flick 2009: 197; Yin 2011:142). Once the topic had been exhaustively interrogated, the participants wrote their reconstructed ideas, thoughts and emotions as a postscript on their letters.

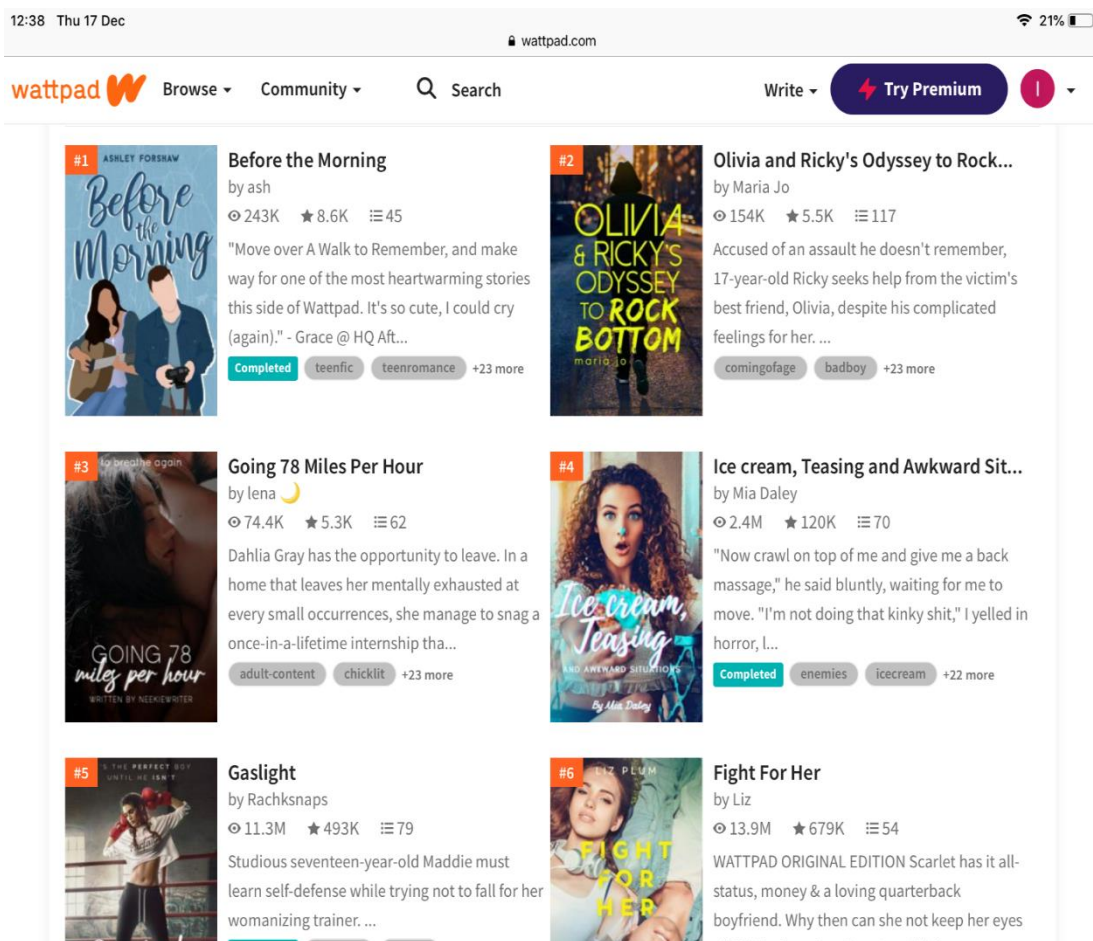
#### **4.3.6 Mobile reading applications used in the study**

The participants in this study used two reading applications to access books that they could read. The reading applications are Wattpad and Worldreader.

##### **4.3.6.1 Wattpad**

Wattpad was one of the reading platforms used by the adolescent learners who participated in this study. The researcher had not planned to use Wattpad in the study. However, the participants chose Wattpad themselves and ended up being 'hooked' to the platform. In this section, the researcher profiles Wattpad in detail to establish how available research literature accounts for its popularity and the awe factors which had the participants of this study so intrigued.

Figure 4.2: Screenshot of Wattpad teen fiction page



Source: www.wattpad.com

Wattpad is a self-publishing mobile or online reading platform which connects self-published writers with their readers and audiences. In the words of Wattpad co-founder, Allan Lau, Wattpad represents the books' response to digitisation just like music and videos had gone digital through different software and various mobile applications (Tirocchi 2018:93).

Wattpad represents the world's largest community of readers with over 65 million members connecting via the platform (Tirocchi 2018:94). Mainly, Wattpad appeals to teenagers and young adults, with statistics showing that ninety percent of Wattpad users are aged 13-25 years (Contreras, Gonzaga, Trovela & Kagaoan 2015:311). Research has also shown that several features inherent to the platform have made it an extremely popular and appealing online literature sharing application to teenagers and young adults.

Firstly, Wattpad combines and allow three important moments to all converge simultaneously on one platform. It permits the reading moment, mobile moment and social

moment to all come together allowing users a unique mobile social reading experience. Wattpad has managed to become a very popular social mobile reading application amongst teenagers and young adults because it tunes into and exploits three important values of the digital age namely self-expression, connectivity and exploration (Pianzola, Rebora & Lauer 2020:3). According to the Wattpad website, the application turns reading into a truly social on-the-go experience.

Wattpad gave the participants a say in what they read and the content on the application appealed to their interests. Wattpad's book promotion and reader response features like commenting, liking and sharing liberated the participants of this study, allowing them to interact and connect with the global Wattpad community. These features allow young readers to record their reactions to a text instantaneously. The 'comments in the margin' section found on Wattpad supported active and engaged reading amongst the participants (Rebora & Pinanzola 2018:21). This participatory feature provided a conduit for feedback and interaction between writers and the young adolescent readers and between the participants and other readers. Consequently, Wattpad afforded the participants of this study a genuine transformed 'social reading' experience where the participants read in a virtual online environment while exchanging thoughts and feelings on the materials they read.

Furthermore, Wattpad broke the chasm which has traditionally divided writers and their audiences by building communities around the story (Florendo 2013:4). While the writer has and still owns the creative genesis to the story, the young readers were able to help shape the narratives they read through their contributions in the comments in the margin section. Another 'cool' social feature that made Wattpad stand out in this study were the embedded YouTube links, which enabled the participants to share background music that fits the mood and temperament of the story being read.

Wattpad's contribution to literacy development and readership amongst adolescents and young adults is immense. The platform provides its readers with unfettered access to a wide selection of free reading arranged under a broad category of genres such as chick literature, romance, werewolf to mention a few. Furthermore, Wattpad does not place any restrictions on whom and what can be published on the website, thus, breaking down the traditional hegemonic gatekeeping role played by editors and publishing houses. While Wattpad undoubtedly provides a fertile breeding ground for the nurturing and discovery



of new literary talent, critics have hit back at the platform for compromising the quality of literary output as there are no quality control mechanisms on the works published.

#### 4.3.6.2 Worldreader

The Worldreader application was the mobile reading application chosen and used by the researcher in designing the mobile reading intervention for this qualitative action research study. Although the application was not as appealing as Wattpad to the participants of the study, it did afford the participants ample opportunity to engage and develop a digital mobile reading culture.

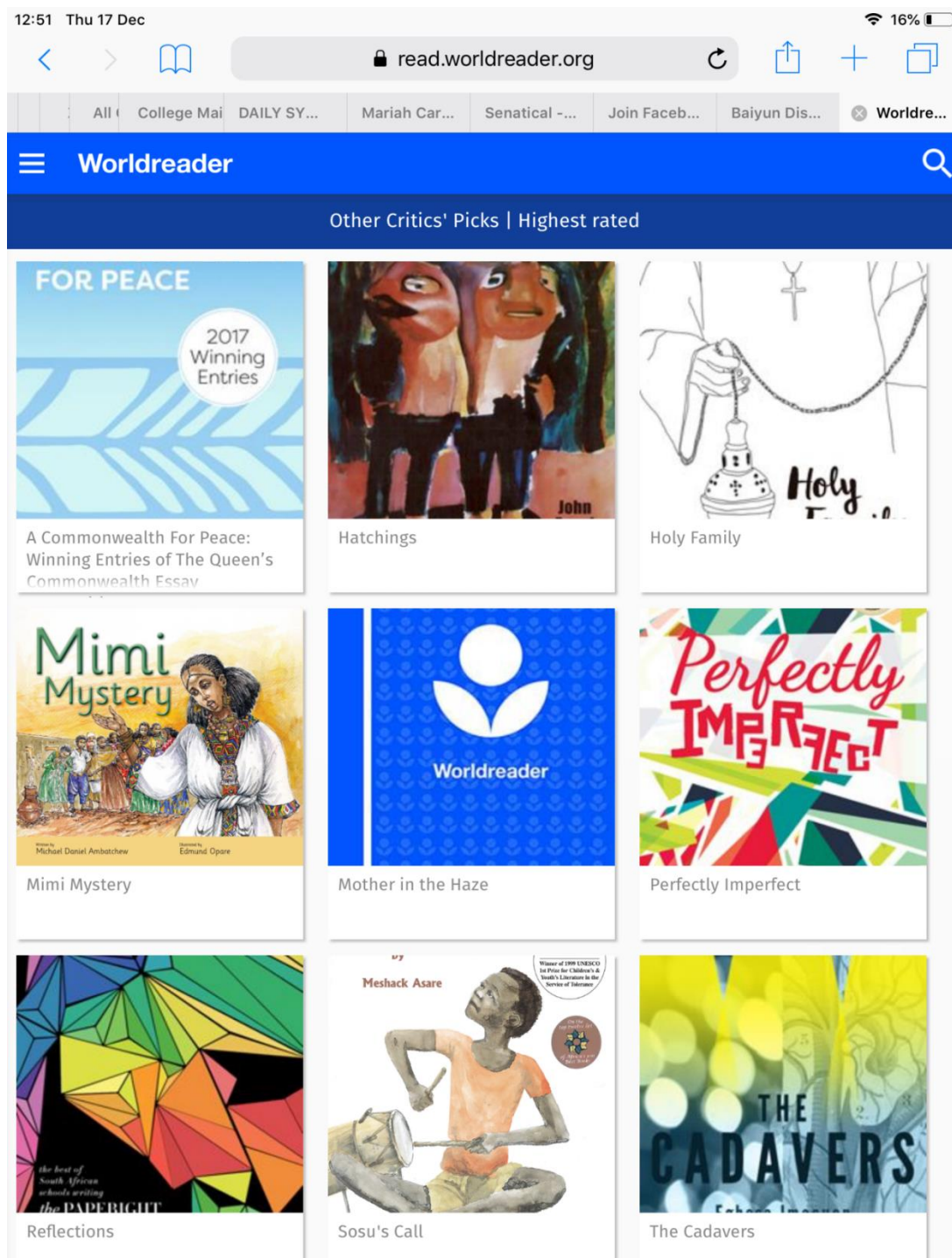
**Figure 4.3: Welcome note on Worldreader mobile reading application home screen.**



Source: <https://appgrooves.com/android/com.worldreader/worldreader-free-books/worldreader>

Worldreader is a non-profit organisation whose goal is to deliver as many books in digital format as possible to as many students, teachers and families as possible (Kwauk & Robinson 2016:5). The target of the organisation is to ensure that people in underserved communities have access to free digital reading materials and resources.

Figure 4:4: Screenshot of Worldreader's critics' pick page



Source [www.read.worldreader.org](http://www.read.worldreader.org)

One of the key strategies Worldreader employs to ensure extensive reach and promotion of a global lifelong mobile reading culture is through the development of the Worldreader mobile reading application. So far, Worldreader has managed to reach over ten million readers and the number is still growing (Worldreader 2018:4).

The application contributed immensely to the success of this study as it facilitated fulfilment of the research objectives in many ways. Firstly, the Worldreader application allowed young readers access to a large repository of thousands of quality free digital books they could read anytime, anywhere even while they were offline. Unlike Wattpad content which could only be accessed online, Worldreader content can be downloaded and read later when offline. According to the Worldreader homepage, this feature ensured that readers kept reading even if there was no internet connection or their phone had run out of data ([www.worldreader.org/](http://www.worldreader.org/)).

The adolescent participants in this study could use the Worldreader application to create their bookshelves, set their reading goals and check their reading progress against the reading goals they set for themselves. Through the reading application's gamification feature, the young participants could track, monitor their reading and literacy skills in advance. This gamification feature constantly sent pop-up notifications or messages on the reading screen alerting and congratulating the young participants for every reading milestone they achieved. Every fifteen pages, every chapter read and completed were celebrated. According to Worldreader, this game-like tracking feature on the application encourages users to read more (<https://www.worldreader.org/our-solution/products/worldreader/>).

The two mobile reading applications used in this study played a complementary role and supported each other in addressing the fundamental problem of this research study. Wattpad (the participant's choice), with its urban feel and youth-centred content, provided fun-filled reading that resonated well with the lives and experiences of the adolescent participants of the study as they found it easy to relate to the many and varied teen-themed genres found on the application. Worldreader (the researcher's choice), with its well-curated and wisdom-filled collection of over one hundred and twenty categories, provided worthwhile and enriching reading for the participants.

#### **4.4 Data analysis**

In action research, data analysis is an on-going and continuous research activity that must be essentially tied into the action at every stage or spiral of the action research cycle (Burns 2010:142). Data analysis was done concurrently with data collection to allow reflection on the data, which in turn, facilitates the professional learning and knowledge of the

researcher-practitioner. This section marks the reflection stage in the action-reflection model of the action research process.

The data in this study was collected from multiple sources which included the literacy practices interview, participant and researcher mobile reading journals and focus group discussions. The data analysis strategy of this action research study is aptly captured in the words of Hatch (2002:148 cited in Leech & Onwuegbuzie, 2007:564) who defines data analysis as:

*'... a systematic search for meaning. It is a way to process qualitative data so that what has been learned can be communicated to others. Analysis means organising and interrogating data in ways that allow researchers to see patterns, identify themes, discover relationships, develop explanations, make interpretations, mount critiques or generate theories. It often involves synthesis, evaluation, interpretation, categorisation, hypothesising, comparison and pattern finding'.*

As Hatch's definition implies, the researcher adopted analytical techniques that were responsive and used to synthesise, organise and give meaning to the data collected. In essence, the analytic framework of the study could reveal some aspects of Zimbabwe's mobile reading narrative and experiences. This section fully elaborates data analysis plan and procedures adopted in the study. The data analysis plan and procedures chosen here helped to further illuminate the central problem and answer the key question of the study.

#### **4.4.1 A 'generic inductive approach' to [mobile reading] data analysis**

The data collected in this study were analysed using a 'generic inductive approach' (Liu 2016:129). Analytic induction is defined by Preissle (2008:15) as

*'The process of developing constructs such as categories, statements of relationships, [recurrent patterns, emerging themes] and generalisations as well as theory resulting from integrating categories and generalisations by examining incidents, events and other relevant information to the topic'.*

This study developed an inductive analytic approach as a medium for data analysis based on two rationales presented by Thomas (2006:238). This rationale, therefore, acted as justification for the selection of the analytical framework for this study. Firstly, the approach was used to reduce the voluminous unprocessed data on mobile reading collected from the interviews, mobile reading diaries and focus group discussions into brief and manageable chunks of information to be displayed in a summary format. Second, the approach facilitated the establishment of clear associations between the goals of this

mobile reading study and the summary findings drawn from the raw data. Consequently, an analytic framework that was primarily inductive allowed the researcher to draw inferences from within and across the data sources used in this study to identify emerging and recurring themes, patterns and experiences of mobile reading amongst a group of adolescent learners in Zimbabwe.

#### **4.4.2 Rationale for thematic data analysis procedure**

Miles, Huberman and Saldana (2014:10) propose a six-step framework to qualitative data analysis which outlines the basic procedures and steps to conduct inductive data analysis. This procedure entails coding the data under thematic headings, sifting and sorting through the data, isolating common patterns and themes, noting reflections, generating propositions from the data and comparing the propositions against a celebrated canon of knowledge as theory. These steps are iterative and a researcher can move back and forth between these steps depending on the richness of the data and the depth of their immersion into the data (Yin 2011:186). This thematic analytical framework was applied to the data collected in this action research study so that the data could be reduced, displayed and conclusions on the mobile reading practices of Zimbabwean adolescent learners drawn from the findings.

The themes emerging from the data were developed and identified by closely scrutinising and studying the transcripts from the literacy practices interviews, mobile reading journals, researcher's journal and focus group discussions. As Ayres (2008:867) outlines, thematic analysis and coding is a data reduction technique, which involves categorising, segmenting and summarising the data in a way that illuminates the important concepts evolving from the data. The data were assigned and coded under different thematic headings using coloured highlighters. The thematic headings under which the data was assigned during the coding process were arrived at using a guide to theme identification as elaborated by Creswell (2014:249). Some thematic sources included revisiting the research question, the literature review, line-by-line reading of the data transcripts to search for process actions and consequences and metaphor analysis for pattern recognition

The researcher opted for a thematic analysis of data as this has the distinct advantage that it provides an ideal interpretive and conceptual entry point to the data which gives the researcher an analytic 'handle' on the data (Willig 2013:147). Jugder (2016:2) elected to analyse her interview data thematically because a 'rigorous thematic approach' enabled her

to gain deeper insights and answers to her research problem. As a result, the researcher chooses the thematic data analysis method for its strength as a rigorous and systematic process that will help to facilitate the search for patterns of mobile reading experiences amongst a group of adolescent learners in Zimbabwe.

#### **4.5 Reliability and Validity/Credibility and trustworthiness**

Action researchers need to legitimate and validate the knowledge they claim to be the truth (McNiff 2013:133, 142). Issues of credibility and trustworthiness were addressed right from the onset of the study. At every turn, a conscious effort was made to uphold these two important concepts to guarantee the validity and reliability of the research effort. This section outlines some strategies the study employed to ensure quality, rigour and depth.

Action research literature rejects the wholesale application of positivist notions of validity and interpretative claims of trustworthiness and credibility to action research. Rather, it advocates a definition of rigour that reflects and embodies the spiral, cyclical, and action-oriented character of action research (Herr & Anderson 2012:56). Winter (1989: 43-65 cited in McNiff 2013:141) presents six principles that form a quality criterion against which action research should be adjudged. These principles are 'reflective critique, dialectical critique, collaborative, acceptance of the inevitability of risk, a plural structure and the relationship between theory and practice'. On the other hand, Burns (2010:131-133) presents a five-stage process for ensuring rigour in action research. She advises that educational action researchers maintain the pedagogical focus of the research, reliance on multiple sources of information, complete submersion in the data, upholding neutrality, impartiality and outlook and placing emphasis on practical theory.

This study adopted as a frame of reference, a quality framework or validity criteria, which attempted to assure the attainment of rigour on an on-going and continuous basis at every stage of the study (Herr & Anderson 2012:58). The Herr and Anderson model outlines validity criteria that correspond with the goals of the action research process. The first aspect to be assessed was 'outcome validity' which related to the goal of achieving an action-oriented outcome. The second criterion was 'catalytic validity' which tied to the education of both researcher and participants. 'Democratic validity' dovetailed to present results that are relevant to the local context. The last one was the assurance of 'process validity' which relates to the soundness and appropriateness of the methodology.

In attempting to guarantee the process validity for this mobile reading study, the researcher stood guided by a multiplicity of approaches to increase the likelihood of producing accurate and convincing results in qualitative research (Creswell 2014:251). Many strategies such as long-term protracted engagement in the field and methodological eclecticism were used to enhance the integrity of the study (Creswell 2014:251-252). In terms of prolonged engagement, a full school term was dedicated to the mobile reading intervention and data collection procedures. In Zimbabwe, a school term is normally three months long which equates to twelve weeks and normally each term has between sixty to sixty-five days of learning excluding weekends. Hence the timeframe was appropriate to allow the researcher ample time to engage the participants and immerse themselves completely into the data. Furthermore, the researcher used multiple data collection methods in the literacy's form practices interview, mobile reading journals for participants and the researcher and focus group discussions to triangulate the data sources and facilitate the acquisition of multiple perspectives into the participants' experiences of reading on mobile. According to Burns (2010:131), triangulation gives the researcher different lenses to view the problem and increases objectivity.

Herr and Anderson (2012:58) explain outcome validity as being dependent on process validity. This implies that if the research processes and actions are flawed so too will the outcome be because the outcome is a product of its processes. Therefore, outcome validity refers to 'looping back' to reflect, reiterate, refine and redefine the problem. Outcome validity means the results of the action should point to an improved educational situation for both the researcher and the participants (Burn 2010:131). In this study, the researcher employed 'self-reflexivity' as a strategy to continuously reflect, reaffirm, refine and illuminate the problem (Tracey 2013:3). Right from the onset, the researcher used active reflexivity to engage in critical self-reflective conversations while challenging and confronting their assumptions regarding mobile reading and assessing how these decisions impact the overall soundness of the research effort (Shumba & Zireva 2013:21). Furthermore, the researcher continuously engaged in a series of reflective cycles regarding the adolescent learner's mobile reading practices by constantly monitoring the learners' mobile reading practices and hopefully empowering them to develop reading as a life skill. This was done through a reflective research journal. The following three types of validity apply to this study: catalytic, dialogic and democratic validity.

Catalytic validity is best described according to the particular goal of action research. Action research is described as being 'transformational' resulting in a 'renewal and reorientation' of both the researcher's and participants' view of reality (Burns & Kurtoğlu-Hooton 2016:10; Herr & Anderson 2012:59). Put simply, it acts as a catalyst, facilitating the learning of both the participants and researcher. In this instance, the researcher heeds the advice of Yin (2011:20) of simply adhering to the evidence. Both the researcher and participants maintained mobile reading journals throughout the mobile reading intervention. Through these journals, participants and the researcher built an explicit set of evidence forming an 'audit trail' (Creswell 2014:252). The journals acted as a self-reporting mechanism containing the actual words of the participants and the researcher who both became data-rich sources regarding their learning experiences gained through reading supported with mobile devices (Yin 2011:20). Combined with the data from the literacy practices interview, these data acted as a basis for the generation of thick descriptions regarding the transformational process the participants and practitioner underwent during this action research study.

Democratic validity is concerned with the extent to which action research addresses ethical and social justice issues through creating an enabling research context for all those involved to participate in the research on an equal footing. This criterion is tied to the ethical framework to be discussed in detail in section 4.6 on ethical considerations.

#### **4.5.1 Methodological triangulation**

Triangulation is a common quality assurance strategy often adopted by researchers to enrich the validity of a qualitative research endeavour. The triangulation framework adopted for this study best suits the relativist and constructivist foundations of this study, which seek to illuminate the narrated and captured mobile reading lives of the teenage participants. The multiple data collection instruments used in this study allowed for the in-depth interpretation of the multiple social realities MRDs present in the lives of the adolescent learners at the same time, they allow for multi-vocality amongst the participants and the researcher as they co-shared and co-constructed meaning from their mobile reading experiences.

Triangulation is a process that entails the combination and use of a multiplicity of methodological approaches, theories, data sources and investigators to address a research question (Heale & Forbes 2013:98). Denzin developed a taxonomy of four basic types of



triangulation which are generally used today (UNAIDS 2010:13). Data triangulation, investigator triangulation, theory triangulation and methodological triangulation are the four fundamental types of triangulation. In this study, methodological eclecticism also called methodological triangulation, which is a triangulation technique that centres upon the comparison of data generated by different qualitative methods like interviews and observations was used (Johnson, O'Hara, Hirst, Weyman, Turner, Mason, Quin, Shewan & Siriwardena 2017:6). The multiple data collection techniques used in this study include the literacy practices interview, mobile reading journals and focus groups.

Triangulation is an integral process of validating and strengthening the credibility of qualitative research findings as they cannot be replicated as the case is with quantitative research (Tracey 2013:250). Often, triangulation is used in qualitative research for different purposes. Two views on the rationale for using triangulation in qualitative research emerge from the literature. First, triangulation is viewed as a means of checking the validity of data. The second position maintains that it is a means of broadening and 'deepening' the understanding of a phenomenon under study (Creswell 2014:251). In this study, triangulation assumed a dual role as elaborated in the succeeding paragraphs.

The primary rationale for using data triangulation in this mobile reading study was to strengthen the data collected on the mobile reading lives of a group of adolescent learners in Zimbabwe. It is devoid by eliminating bias which often arises by relying on one source of data. The literacy practices interview, the focus group and mobile reading journals used in this study provide multiple perspectives and voices in capturing the mobile reading narratives and encounters of the participants. Resultantly, they provided a comprehensive representation of the situation on the ground and combating threats to validity (Yin 2011:79). Furthermore, this triumvirate of data collection instruments used in the study plays a complementary role with each method covering the deficiencies of the others (Yeasmin & Rahman 2012:155).

The second purpose for using triangulation in this study was to add depth and richness to understanding the phenomenon of mobile reading in the lives of Zimbabwean adolescent learners (Heale & Forbes 2013:98). Johnson, O'Hara, Hirst, Weyman, Turner, Mason, Quin, Shewan and Siriwardena (2017:6) report how they adopted a multiple triangulation approach, which included research site triangulation, investigator triangulation and method triangulation for the double purpose of enhancing the credibility, dependability

and conformability of their study. The second purpose was to ensure that the multiple triangulation approach they adopted helped them reveal different aspects of reality. Similarly, this study engages a multi-method strategy with the view that each of the data collection methods used in this study will uncover in-depth unique aspects about the multiple reality of the mobile reading lives of adolescent learners in Zimbabwe.

#### **4.6 Ethical considerations**

Ethics are the moral fabric of research. A conscious effort was made to ensure that ethical practice runs like a thread throughout this entire study. This section outlines the ethical framework of the study. The study adopts Tracey's model as a frame of reference to guide the ethical plan of the study (Tracey 2013:243-245). Tracey explains that practicing ethics in qualitative research demands consideration of procedural, situational and relational ethics. Tracey's model seemed ideal for this study as it allowed the researcher due consideration of the multiple conflicting ethical positions, which arose in conducting a qualitative action research study based on the use of mobile technologies to support reading amongst a group of Zimbabwean adolescent learners. In this regard, therefore, the researcher delineates ethics from three distinct but complementary angles. Firstly the discussion centres on general ethical issues as they relate to the study (Procedural ethics). Secondly ethical issues which relate specifically to the conduct of action research are discussed (Situational and relational ethics). Last, the ethical dilemmas which arise because of using mobile reading devices in educational contexts are considered (Situational ethics) (Tracey 2013:243-245).

##### **4.6.1 Procedural ethics**

Tracey describes these as the 'universal edicts' for ethical conduct in all research, regardless of the research design adopted (Tracey 2013:243). The procedural ethics considered in this study stem from the principles set out in the Belmont report of 1979 (Herr & Anderson 2012:113). The three ethical principles set out in this report have become the golden standard for ethical research practice. These principles are beneficence, respect of persons and justice. Flick (2009:37) explains that these principles have become the basis of 'ethical theory' and synonymous with the ethical rules and guidelines adopted by professional associations and institutional review boards. These guidelines relate to the avoidance of harm and deception, obtaining informed consent and ensuring privacy and confidentiality.

The principle of beneficence relates to the avoidance of harm, minimising risk as well as maximising potential benefits for research participants (Shumba & Chisaka 2013:51). These risks may be physical, emotional and social. These may arise from participating in the mobile reading study. To protect the participants of this mobile reading study from risk and increase the potential learning benefits of the study, the researcher fully disclosed to the adolescent learners the structure and aim of the mobile reading initiative and why they had been identified and chosen to take part in the study. The procedures and the role of the adolescent participants in the action research study were explained to them in detail. Also, the researcher explained the potential benefits expected from participating in the mobile reading study. The prospective participants were also allowed to ask questions and seek clarity on any issues regarding the study and their participation. It was only when the participants had understood the implications of their participation that they made an autonomous decision to take part in the study. Full disclosure is the first step out of many other ethical practices an action researcher can take in ensuring that their participants are free from risk.

The principle of respect for persons entails respecting the values and the decisions of research participants (Flick 2009:37). The participants of this study range between fourteen and seventeen, thus, fall under a group described as a vulnerable population in research literature for getting informed consent. However, this study investigated the reading practices of the adolescent learners both at school and home using mobile devices, a subject the researcher believes is within the scope of comprehension of the participants of the study. Nevertheless, the researcher wrote letters to all parents of the learners involved. The letter explained the nature of the study, the potential risks and benefits and sought informed consent from the parents on behalf of the participants. Once informed consent had been granted by the parents, informed assent to participate in the study and various data collection procedures such as the literacy practices interview, recording mobile reading journal entries and focus group discussions were obtained from the participants. Informed assent was continuously negotiated throughout the study and the right of the pupils to pull-out at any given stage of the research was respected (See Appendices F and G for the consent letter to the parents and the consent letter of the participants).

Consent letters were also written to the Forward in Faith Christian College management (See Appendix E). A clearance certificate endorsing the ethical framework of the study

was issued by the Ethics Committee in the College of Education at the University of South Africa (See Appendix A).

#### **4.6.2 Situational and relational ethics: Conducting action research in mobile reading contexts in Zimbabwe**

This section discusses the apparent state of ethical discord that seems to exist between traditional research ethics guidelines and the often sticky ethical needs which arise when conducting action research (Gelling & Munn-Giddings 2011:101). The bone of contention lies in the inelegant and inappropriate fit of the three unifying ethical principles spelt out in the Belmont report when it comes to the practice of action research (Nolen & Putten 2007:402). By its very nature, action research is a form of insider research with unique ethical needs and issues which emerge from it. The practitioner-researcher duality poses practical difficulties for action researchers as they often find themselves in conflicting roles.

In this study, the researcher also played the complex dual role of researcher-teacher. The power relations in Zimbabwe's junior secondary education often swing in favour of the teacher who is often viewed as the sole authority figure in the classroom. These unbalanced power relations lead to 'subtle coercion' and 'other-ing' of the participants in the research process (Johnson 2013:2; Herr & Anderson 2012:122). These skewed power relations might impede the learners' from freely exercising their autonomy in deciding as they might feel duty-bound and obliged by their subservient positions to participate in the study. In an attempt to mitigate undue coercion and maximise participant autonomy, the researcher was guided by the ethical values espoused by action research scholars (Reason 2006 cited in Alidou & Glanz 2015:42). These values enhanced the democratic validity of the study as they are founded on principles of democracy and social justice in the action research process. These ethical values include viewing and treating all participants as equal, acknowledging and accepting the variety of sentiments and ideas held by the participants, accepting dissenting voices, being transparent and establishing rapport and maintaining consensus throughout the research process.

Furthermore, the researcher involved the participants in the decision-making processes of the study. For instance, the researcher and the participants negotiated a responsible use policy for mobile phones when they are brought to class. This is in line with the recommendations set forth by Nolen and Putten (2007:405). The duo also advise that the

practitioner-researcher can engage a fellow professional to collect data to minimise coercion. In this action research study, the researcher's self-critical reflectivity was a central component to the data collection strategy of this study. As a result, a more viable ethical approach to reduce the undue influence of the researcher was to seek a neutral research site where the researcher does not teach like Forward in Faith College. This enabled the researcher the privilege of maintaining his identity as a professional teacher while appearing to the participants as a non-threatening persona in the form of a researcher. Shedding the role of teacher and remaining as a researcher at a neutral school where the researcher did not teach enhanced the respect, cooperation and openness amongst the participants and researcher.

#### **4.6.3 Mobile reading and mobile devices in the Zimbabwean classroom: A review of potential ethical dilemmas**

The literature reviewed in this study (chapters two and three) revealed that the use of mobile devices in education in general and in the Zimbabwean classroom, in particular, remains a contentious issue. Mobile devices bring with them a whole new ethical dimension to teaching, learning and research which need to be carefully considered before embarking on any kind of study that places these devices at the centre. This section focuses on some of the diverse and complex ethical issues which have been documented in the research literature and those that are likely to arise from using mobile devices to support reading activities amongst a group of adolescent learners both at school and home.

The tripartite nature of mobile learning and the multi-modality of mobile devices coupled with the hybrid learning environments created and supported by these emerging technologies has forced mobile learning researchers to reconceptualise traditional ethical codes in search of ethical values that seem to respond to the ethical challenges arising thereof. In their review of ethical issues in qualitative e-learning research, Kanuka and Anderson (2007:20) identify three areas likely to cause uncertainty and confusion. are 'participant consent, public versus private ownership and confidentiality and autonomy'. Other ethical problems emanating from the use of mobile devices in educational settings are a disruption to classes, cheating, plagiarism, cyberbullying, researchers accessing participants' private information and images on mobiles and erosion of teacher autonomy (Wishart 2018:90). In a study of mobile phones and education in three sub-Saharan countries, Porter et al. (2016:29-33) discovered a plethora of ethical challenges such as the risk of addictive behaviour from excessive use of social media, sharing of inappropriate

images and videos amongst research participants and disrupted sleep patterns, which impact on adolescent physical and emotional health.

Wishart (2018:90) proposes a move away from codified ethical guiding principles to values-based ethical frameworks to cater to the emerging ethical issues in mobile learning research in educational contexts. This proposed values-based ethical system is premised on three pillars namely 'deontological ethics' (rule-based on responsibility or duty), 'consequential ethics' (based on outcomes of action) and 'virtue ethics' (based on developing as a good person). This study adopted several strategies to devise a values-based ethical system to guide both the researcher and participants during the mobile reading study. These strategies included responsible use training for the research participants, the negotiation of a responsible use policy with the participants, respect for participants and valuing the participants' learning ahead of the interests of the study.

Forward in Faith Christian College, like most learning institutions in Africa and Zimbabwe, has banned the use of the mobile device by junior classes within the school. The current position is that any mobile device found in the possession of learners is confiscated. The mobile device is only returned after a disciplinary conference with parents has been held. This scenario presents an ethical quandary for the study as the mobile reading intervention is tantamount to unbanning mobile devices within the school, which is in direct conflict with the school's ordinances and parents' beliefs. The researcher requested a formal meeting with the principal of the school before the reading initiative was launched. The purpose of the meeting was to explain the purpose and goal of the study to the school administration. Furthermore, this allowed the school administration to seek further clarity on any sticky issues arising from the design of the study. Consent was also sought from Worldreader, the owners of the free mobile reading application to be used in the study (See Appendix B for the letter from Worldreader).

#### 4.7 Summary of the research design framework

Below is a tabulated summary of the research design framework adopted for this study.

**Table 4.1: The framework of research design in this study**

<b>Research Approach</b>	Qualitative Research		
<b>Research Philosophy</b>	Relativist ontology (multiple realities)	Constructivist Epistemology (meaning is co-constructed)	
<b>Research Methodology</b>	Action research		Action-reflection model
<b>Population Sampling</b>	Convenience sampling		
<b>Data Collection Methods</b>	Literacy practices interview	Mobile reading journals	Focus group
<b>Data analysis methods</b>	Generic Inductive approach		Thematic analysis (Theme identification and reduction)

Table adapted from Liu (2013:119).

#### 4.8 Conclusion

This chapter described and discussed the research methodology used in the study. A qualitative action research design was used to investigate the impact mobile reading devices had on the literacy practices of a group of Zimbabwean adolescent learners. Convenience sampling was used to select participants from Forward in Christian College in Belvedere, Harare. The chapter also explained the three data collection methods which were used in the study namely the literacy practices interview, mobile reading diaries and focus group interviews. The data analysis procedure was described and the approaches used to address ethical issues, trustworthiness and credibility were also clarified in this chapter. In the next chapter, the study will focus on the analysis, interpretation and presentation of data collected during the data collection process.

## **CHAPTER 5: PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS**

### **5 Introduction**

In the previous chapter, the researcher discussed the design and methodology used to collect data for this mobile reading study. The researcher also reviewed relevant literature in chapters 2 and 3 which aligned to the primary aim of the study: To explore ways in which MRDs such as mobile phones and tablets can be used to sustain and promote a lifelong culture of reading for leisure among a group of adolescent learners in Zimbabwe.

This chapter presents findings on the impact mobile reading devices had on the development of literacy practices of a group of Zimbabwean adolescent learners. Using Bronfenbrenner's (1979, 2005) ecological systems theory as a theoretical frame of reference (see section 3.3.1), the data is presented qualitatively to offer a comprehensive narrative of the adolescent participants' mobile reading experiences. The researcher uses thick and vivid descriptions interlaced with verbatim extracts of the participants' reading narratives. The chapter draws on the data sources to elaborate patterns, make theoretical connections, draw contrasts and comparisons, create metaphors of mobile reading and outline themes emerging from the mobile reading discourses of the adolescent participants. The data collection methods used in this study included the literacy practices interviews, the participants' mobile reading diaries, the researcher's field notes and focus group discussions.

The chapter opens with a profile of the study participants. This section is followed by a conversation on the organisation and management of the data and data analysis methods. The results from the literacy practices interview, mobile reading diaries and focus group interviews are presented. The themes and sub-themes that emerge from the data are discussed as well in the chapter.

#### **5.1 Participant profile**

All twenty-three learners who participated in this study were enrolled at Forward in Faith Christian College (FIF College), an International Christian High school located in Belvedere, Harare, Zimbabwe. The learners who participated in this study were in various grade levels between forms 2 and 4. Since all the participants were minors, parental consent forms were signed by their parents while the learners signed the assent forms (see annexures A and B respectively). The researcher presents the profile of the participants as a group based on their demographic characteristics. In the research, a conscious and



deliberate effort was made to protect participants' ethical right to anonymity and confidentiality by ascribing a participant number to each of the learners (Fouché & Chubb 2017:23). Each of the twenty-three participants was ascribed a participant number from 1-23. Hence in this chapter, reference is made to the participant number and data source, for example, Participant 21-LPI refers to a contribution made by participant number 21 in the literacy practices interview. Participant 15-MRJ 01/01/18 refers to an entry made by participant 15 in their mobile reading diary and Participant 1-FDG signifies a contribution made by participant 1 in the focus group interview. The acronym RFN-21/02/18 represents data derived from the researcher's field notes and the date of the entry. All participants are referred to using pronouns in the third person singular and gender differences are included but were not considered in interpreting the data.

The participants were selected based on the convenience or opportunistic sampling techniques in which participants are selected according to their availability (Creswell 2014:204). The initial plan was to have only Form 3 learners as participants of the study. However, the Vice Principal of FIF College felt that the form 3 enrolment was insufficient enough to make up the desired population of the study. The eventual strategy was to adopt one of the hallmarks of action research of being study-flexible and incorporate learners from Forms 2, 3 and 4 into the study as they still suited the desired demographic of adolescence. The average age of the participants remained fifteen.

**Table 5.1: Profile of the participants**

<b>Age range</b>	14-17 years	All the participants in this study are secondary school learners in Zimbabwe.
<b>Gender</b>	10 Male Participants 13 Female Participants	The participants' responses have not been aggregated according to gender. The research focus was more on their literary practices as a whole group.
<b>Grade level (s)</b>	Form 2 – Form 4  The learners in this grade range are all adolescents. Their reading interests, literacy practices, mobile experiences and school experiences are largely the same.	The participants are in various grade levels of the Zimbabwean secondary school system.
<b>The school they attend</b>	A private international Christian co-educational school.	All the participants study the GCSE Cambridge international syllabus which is offered at school.  The school lies within the middle to high fee-paying category.
<b>Mobile Device ownership</b>	All twenty-three participants own a mobile phone.	All the mobile devices owned by the participants are smartphones. This enabled the implementation of the Bring Your Own Device (BYOD) model.
<b>Family background of the participants.</b>	The nuclear family is the most common family structure amongst the participants.	The participants' social and schooling needs are adequately supported from home as evidenced by the 100% mobile phone ownership rate amongst the participants.

In short, it is apparent from the table that the participants of this study are a group of privileged learners. Judging by Southern African educational standards, these learners are very fortunate as they attend an urban private school with good technological infrastructure and internet connectivity. The participants are also advantaged in the sense that they come from middle-income families where their parents can afford to buy them personal mobile devices.

### **5.1.1 How the participants of the study connected with their mobile devices**

One very important incident took place during the onset of the study which enabled the researcher to learn more about his participants and to profile them better in respect of how they viewed and interacted with their mobile devices. As the interviewing of individual participants started, the researcher realised that some of the participants were left unoccupied. The researcher asked the participants to relate on paper the relationship they shared with their mobile devices. The outcome of this spontaneous but short exercise was very insightful and revealing as the researcher learnt more about his participants and understood them better. In examining the relationship which existed between the adolescent participants and their mobile devices, the researcher learnt that the participants of this study were true digital natives.

#### **5.1.1.1 The participants as digital natives**

The participants of this study are part and parcel of the age of modernity. The adolescent participants in this study shared a very close, personal and affectionate relationship with their mobile devices. Firstly, they considered their mobile phones to be their friends. The level of personal attachment the adolescent participants had with their mobile devices stretched as far as naming their phones as Participant 4 did: "*My phone is called Rose...She is like my best friend forever*" [Participant 4]. The mobile device was considered more than just a loyal friend and sometimes, the relationship extended beyond mere friendship. The mobile device was an omnipresent appendage of their very existence as Participant 8 explained: "*I treat my device as the other half of me; where I am is where it is*" [Participant 8].

Apart from the camaraderie, the researcher observed that there was a feeling of closeness and companionship existed between the teenager and their mobile device. Deprivation resulted in alienation and most probably depression as Participant 4 highlighted: "*Without her, I feel alone and have no one. No one at home can separate the two of us*" [Participant 4]. Participant 4's feelings build on findings of earlier research on mobile phone use by Ofcom (2017:2). The study found that most of the 12 – 15-year-old participants in the study said their mobile device was the gadget they would miss the most. The adolescent participants in this study shared a very close and personal connection with their mobile devices. Practically, they worshiped and adored their mobile devices. This is probably so because the mobile device seems to be the single constant that holds supreme in their

stormy teenage lives. The depth of trust between the adolescent and their mobile phone is immeasurable. The mobile device is private, dependable, always on hand and never objects to their demands. For instance, if they share a secret with their mobile device, that secret will always remain a secret, stored in the phones memory, never to be divulged.

The adolescent participants carried out an array of activities on their mobile devices like connecting with friends and family on social media, texting, gaming, messaging, listening to music, watching videos and taking pictures. The adolescent participants in this study are social beings, thus connecting with friends on social media ranked highest amongst the mobile device activities by the participants. The purposes and use of social media by the adolescent participant were primarily for communicative purposes. The participants used social media sites and applications to build, maintain and communicate their public self or identity. Social media helped the participants create a public image they wanted to project to society. The most popular social media applications used by the participants included Instagram, the photo-sharing application, Twitter, the micro-blogging site, Whatsapp, the messaging application and Facebook. Participants 3 and 4 captured the essence of social networking in the participants' lives when they said:

*"I love social media such as Instagram and twitter because I can follow my friends and favourite celebrities. I use my phone for everything."*  
[Participant 3]

*"I also go on social media like Instagram to keep up with my social life".*  
[Participant 4]

The participants seemed to use their mobile devices for social media to keep their social connections and networks alive and vibrant, even if they were geographically detached from the common social spaces they occupied together like the school. Livingstone (2012:28) attributes this growing popularity of social networking applications and sites amongst adolescents to the freedom in content creation, sharing and viewing capabilities offered by these applications. Furthermore, data charges for social media sites like Facebook and applications like Whatsapp are relatively cheaper, making them affordable means of communicating compared to voice calls. This enabled the adolescent participant to connect to their peers with unlimited access.

The participants also highlighted that they made use of pre-installed mobile device functions such as cameras, music players, video players and games. Hence, the other form

of subsidiary activities undertaken by the adolescent participants on their mobile devices included taking pictures, gaming, watching videos and listening to music.

*"I take a lot of pictures with my device, of my family and my favourite things in life. I listen to a lot of music of all genres."*

[Participant 3]

*"...listening to music, sometimes WhatsApp messages, I don't have books in my phone, actually."*

[Participant 6]

*"I usually use my device on the internet, WhatsApp, Facebook, etc and also watching funny videos and sport....I also use it for gaming but not all the time."*

[Participant 10]

The foregoing activities ranked as a subsidiary in the mobile phone use behaviour of the adolescent participants because they were not primary communicative functions of mobile phones. However, these subsidiary activities were supportive and complementary to the communicative function of mobile phones.

In the final analysis, was clear that the total of these mobile phone activities undertaken by the adolescent participants kept them absorbed in cyber-space for prolonged periods. This digital world has become an integral part of their existence; they are a modern generation and they cannot live without it. This cyber world is inherent to their DNA because they have been born into it, hence the ascription 'digital natives'.

## **5.2 Management and organisation of the data**

The data collection framework to this study was driven towards arriving at plausible explanations and interpretations, which addressed the various research questions and helped to achieve the primary aim and the sub-aims of this study. Philosophically, this qualitative action research study drew upon the interpretive paradigms of relativism (ontologically) and constructivism (epistemologically) to craft data collection methodologies that tried to capture the true and distilled essence of adolescent mobile reading in Zimbabwe (see sections 4.1.1 and 4.1.2).

The data collection methodologies such as the literacy practices interview, mobile reading journals, focus group interviews and field notes used in this study were crafted following the guiding tenants of the relativist and constructivist philosophical approaches. Relativism as an ontological approach afforded the researcher opportunity to connect and engage the multiple realities and multiple spaces mediated by mobile devices that have

come to represent the lives of Zimbabwean adolescent learners. Constructivism, on the other hand, was an epistemological approach that facilitated the generation and co-creation of mobile reading-related knowledge which was a product of the participants' authentic mobile reading experiences. As a result, the data gathered in this study was a product of painstaking planning and rigorous data collection process. The rationale behind these actions was driven by a desire to arrive at accurate and authentic data whose interpretations can be considered credible and trustworthy in coming up with truths on the mobile reading practices of a group of Zimbabwean adolescent learners.

### **5.2.1 Handling of the data**

A meticulous and methodical data handling approach was adopted. This study adopted an inductive analytic approach as its data analysis strategy (Thomas 2006:238). This approach involved reducing the large volumes of unprocessed data on mobile reading collected from the interviews, mobile reading diaries and focus groups into small manageable units of meaning which were displayed in a summary format. Then, this was followed by the establishment of clear associations between the goals of this mobile reading study and the summary findings drawn from the raw data (see section 4.4.1). This inductive approach to data analysis enabled the researcher to draw inferences from within and across the data sources used in this study to identify emerging and recurring themes, patterns and experiences of mobile reading amongst a group of adolescent learners in Zimbabwe. Furthermore, this analytical strategy derived its rigour from the continual actions of checking and rechecking the accuracy of the data and ensuring a thorough analysis of the data (Yin 2011:177).

The data in this chapter has been analysed according to data sources (Tracey 2013:187). The data sources are the literacy practices interviews, the mobile reading journals, the focus group discussions and the researcher's field notes. Accordingly, the data presented in this chapter has been treated using two distinct broad categories. The first category which the researcher has labelled: *A baseline of the pre-mobile reading practices of a group of Zimbabwean adolescent learners* pertains to data collected in the pre-mobile reading phase of the study. While the second segment category titled: *The mobile reading habits of a group of adolescent learners in Zimbabwe*, pertains to data collected in the 'during and post' mobile reading phases of the study.

The data outlined in the first category is mainly derived from the literacy practices interviews. This data sought to establish a baseline of the participants' reading attitudes, perceptions towards reading and reading practices before exposure to the mobile reading intervention. In this category, four major sub-categories emerged from the data analysis. Further, these four categories are unpacked into smaller units to paint a comprehensive portrait of the participants' pre-mobile reading habits. This baseline data is very critical as it eventually creates a benchmark against which the impact of MRDs on the reading habits of a group of Zimbabwean adolescent learners can be evaluated.

The second category of data in this study is extrapolated from the participants' mobile reading journal entries, focus group discussions and the researcher's field notes. The rationale behind this segment is to establish how the participants have had to reconfigure their reading lives around their mobile phones as reading media. These mobile reading journals and field notes acted as monitoring tools that enabled the researcher to journey together with the participants on their reading journey. The focus group discussions acted as an evaluative instrument to the whole mobile reading journey undertaken in this study. In the second category, the mobile reading habits of a group of Zimbabwean adolescent learners are also discussed under thematic headings which comprise various sub-themes.

This distinction of the two sections in this chapter has only been made to allow for easier handling and management of the data for presentation purposes. The data sources in this study are only complementary to each other as they work in unison to tell the mobile reading narratives of the adolescent learners in this study. Therefore, the findings on both pre-mobile and mobile reading practices of the participants are presented concurrently according to their thematic convergence. Data was still analysed rigorously within, between and across cases in all the data sources used in the study. For this purpose, triangulation was used. Triangulation is pattern matching using several stratagems (Miles, Huberman & Saldana 2013:299). It increases the credibility of the analysis as it is a means of double-checking the data. Often, triangulation results in three likely outcomes namely corroboration of findings, the inconsistency of findings or conflicting findings (Heale & Forbes 2013:98). While in triangulation, corroboration is the most desired outcome, inconsistent and conflicting findings lead to deeper reflection and re-examination of the data and the researcher's actions.

### **5.3 Data analysis method**

In this qualitative action research study, the researcher adopted a 'generic inductive analytical framework' to process the data collected from the literacy practices interview, the researcher's and participants' mobile reading journals and the focus group discussion and the researcher's field notes (Liu 2016:129). This framework essentially involved two steps namely the reduction and the categorisation of data collected from the various data sources used in the study. Procedurally, the researcher was guided by Miles et al (2014:10) who propose a sequence of six steps in the analysis of qualitative research data. The six steps involve coding the data under thematic headings, sifting and sorting through the data, isolating common patterns and themes, noting reflections, generating propositions from the data and comparing the propositions against a formalised body of knowledge as theory.

#### **5.3.1 Data from the literacy practices interviews**

The data collected through the literacy practices interviews yielded results that offered very critical insight into addressing the first two sub-aims of this study. These aims focused on determining the pre-study mobile literacy practices of the adolescent participants and identifying the attitudes and perceptions of the participants towards leisure reading before their initiation to mobile reading (See section 1.7.2).

The researcher immersed himself deeply into the data to try and establish the key themes, concepts, relationships and patterns of adolescent reading behaviours that emerged from the data (Spencer, Ritchie & O'Connor 2013:203). Firstly, data from the literacy practices interviews were reviewed repeatedly to get a feel and familiarise the researcher with the conversations that he had with the participants earlier (See Annexure F for an excerpt from a literacy practices interview). Then, each interview was transcribed individually by the researcher using word processing software. Once all the interviews had been transcribed and documented, the researcher reviewed the data again. This time the goal was to identify and code chunks of meaningful data that appeared within, between and across the interviews. The data excerpts were tabulated and categorised according to the various themes or units of meaning they represented using an excel spreadsheet. Rich, luminous and thick snippets of verbatim data collected from the literacy practices interviews have been presented and woven into the account of findings. This has been done to ensure that the participants explain in their voices and illuminate in detail descriptive accounts of their reading experiences (Tracey 2013:276). In the data that was collected, the participants raised aspects as their attitude and perceptions towards leisure reading, their reader



identity, the influence of family in their reading lives and their philosophy towards reading.

### 5.3.1.1 Original interview questions

One of the key data collection instruments used in this study was the literacy practices interview developed by Moje and Tysvaer (2009). This original instrument created by Moje and Tysvaer has thirty-six questions which are grouped into seven distinctive categories. This study made use of only twenty of the interview questions while retaining only five categories from the original assessment as these were the ones that were directly aligned and relevant to the aims of this study. The purpose of this study was to explore ways in which MRDs such as mobile phones and tablets can be used to sustain and promote a lifelong culture of reading for leisure among a group of adolescent learners in Zimbabwe. These interview questions offered a means through which the first two research questions of this study could be addressed. These two questions sought to establish the pre-mobile reading literacy practices, perceptions and attitudes of the group of Zimbabwean adolescent learners. The original interview questions are:

**Table 5.2: Summary table of literacy practices interview question**

	AIMS	QUESTIONS
A	To identify varying levels of reading and writing use/engagement among different youth:	<p>Below is a list of different reading materials. From the list of reading materials given below which one would you choose to read first? (Short stories, poems, folktales, novels newspapers, TV guides, sports reports, magazines, family letters/emails, textbooks and official letters).</p> <p>a. What made you pick X first? b. Have you read that before this or did you just think you might like to read it? c. When was the last time you read it? d. (follow up question on the length of the reading interval will depend on the response given by the interviewee)</p> <p><b>1.</b> If there are other things you are most likely to read that aren't on the list, please tell me about them.</p> <p>a. What sorts of material are you best at reading? b. Why do you read these things? c. Where do you get the things you read? d. Do other learners you know also read these? e. Do people older than you read these things? f. How do you find these materials? g. Where do you reading (At home / at school give specific location)? h. Do you ever read with other people? What kind of people? (e.g. Advise participant not to name</p>

		people but to describe relationships, types of people such as friends, siblings, relatives.)
<b>B</b>	To identify and begin to collect specific texts and text types that youth are reading and writing:	<p>2. How often do you read just for fun?</p> <p>3. Can you give me an example [e.g., title] of something that you read for fun?</p> <p>4. Why do you find it fun to read [insert the text named by the participant]?</p>
<b>C</b>	To begin to identify social networks in which reading and writing occur and to document how those networks mediate the reading and writing practices:	<p>5. How many books would you say you have in your house?</p> <p>6. Do you read things together with your family members? (e.g. short stories, folktales, newspapers, TV guide, sports reports, magazines, family letters/emails, textbooks and official letters)</p> <p>7. How often do you go to the local library to borrow books or reading materials?</p> <p>8. Do your friends have books that they share with you? What are they?</p> <p>9. Do you share books with your friends? Which ones?</p>
<b>D</b>	To begin to document intersections between print and visual media practices:	<p>10. What kinds of activities do you like to use your device for? (texting, WhatsApp messaging, gaming, calling, listening to music, reading, taking pictures, recording videos, browsing the internet)</p> <p>11. Do you use the internet (www) to read information about your favourite actors/heroines/ heroes/sporting stars/singers/bands/musicians?</p> <p>12. Are there things you see and hear about on television that you then go and read more about those things on the internet or in books?</p> <p>13. Do you ever buy/borrow books or magazines about your favourite films or performers?</p> <p>14. Have you ever done fan-fiction writing online or with friends on paper?</p> <p>15. Do you consider yourself a reader?</p>
<b>E</b>	To begin to identify human and material resources for reading	<p>16. Do your family members see you as someone who likes reading?</p> <p>17. When you get gifts and presents from family members, do they often give you books that suit your interests?</p> <p>18. When was the last time that a member of your family bought you a book?</p> <p>19. How often do you use your mobile phone to read?</p>

Interestingly, the aims outlined for each set of questions led to the generation of many themes that arose from the pre-mobile reading practices of the adolescent participants in this study.

**Table 5.3 Aims and themes of the literacy practices interviews**

Aims of the literacy practices interview questions.	Themes generated from each set of interview questions
<p><b>A.</b> To identify varying levels of reading and writing use/engagement among different youth:</p>	<ul style="list-style-type: none"> <li>• Pre-study mobile reading engagement and motivation of adolescent learners.</li> <li>• Reader identity and attitudes towards reading.</li> </ul>
<p><b>B.</b> To identify and begin to collect specific texts and text types that youth are reading and writing:</p>	<ul style="list-style-type: none"> <li>• Pre-study mobile reading engagement and motivation of adolescent learners.</li> <li>• Text genre and motivation to read.</li> </ul>
<p><b>C.</b> To begin to identify social networks in which reading and writing occur and to document how those networks mediate the reading and writing practices:</p>	<ul style="list-style-type: none"> <li>• Reading role models.</li> <li>• Reading influence/family literacy practices and other reading communities.</li> <li>• Reader identity.</li> </ul>
<p><b>D.</b> To begin to document intersections between print and visual media practices:</p>	<ul style="list-style-type: none"> <li>• Pre-study mobile reading habits in relation to new digital literacies.</li> <li>• Reader identity.</li> </ul>
<p><b>E.</b> To begin to identify human and material resources for reading</p>	<ul style="list-style-type: none"> <li>• Pre-study mobile reading access to reading materials.</li> <li>• Family literacy practices and reading influences.</li> <li>• Reader identity.</li> </ul>

The literacy practices interview and the questions set out in the instrument played a pivotal role in the study by providing critical insight into the pre-mobile reading habits of the adolescent learners. The five groups of questions were very crucial in addressing the first two questions which sought to establish the nature and extent of the reading habits, attitudes and perceptions of a group of Zimbabwean adolescent learners.

### 5.3.1.2 Concluding remarks from the interview

Finally, it is important to note that several key important lessons were learnt from the administration of the literacy practices interview. The instrument allowed the researcher an unblemished glimpse into the reading worlds of the adolescent learners. By revealing their attitudes and perceptions regarding leisure reading in the literacy practices interview, the researcher learnt a lot about the participants' literacy practices. For starters, the researcher learnt that some widely held preconceived notions and biases about adolescent learners not reading were misplaced (see section 1.3.1 on the decline of a leisure reading culture in Zimbabwe). Adolescent learners prefer defining their literacy practices and as such an adult or outsider's definition of what good leisure reading habits are or should be, is inadequate. Adolescents like reading on their terms and not on anyone's conditions.

Further to this, the researcher learnt that adolescent learners have innovative strategies for gaining access to leisure reading materials.

### **5.3.2 Data from the participants' mobile reading diaries**

The mobile reading diaries allowed the participants to tell their own mobile reading stories (See Annexure H). They were designed to illicit data from the participants, which helped to illuminate the third research sub-aim, further. This sub-aim focused on investigating how mobile technologies could be used to change the reading habits of a group of Zimbabwean adolescent learners (See section 1.7.2). The mobile reading diaries became a monitoring tool through which these transformational reading journeys of the participants could be recorded, tracked and evaluated.

An analysis of the mobile reading diaries enabled the researcher to address questions surrounding the typical mobile reading experiences and the processes that underlined the changing and unchanging reading habits of the adolescent participants (Blogger, Davies & Rafaeli 2003:600). In analysing the diary data, the researcher used the re-storying technique (Clandinin & Conelley 2000 cited in Creswell 2014: 246). It is a data analysis and interpretation technique that entails the breaking down of individual narratives and experiences by isolating definable aspects of a good narrative such as plot, setting and character. Then, the story is reformed and presented by weaving it into the text of this chapter (Creswell 2014:246). The researcher stripped and sifted through every mobile reading diary entry, to reconstruct the mobile reading narratives of the participants using structural elements of storytelling such as plot, setting, activities and climaxes. The researcher continually revisited and scrutinised each diary entry to retrace the participants' mobile reading journeys in search of significant moments, statements and units of meaning, which alluded or hinted towards transformational mobile literacy practices of the adolescent participants. Guided by the connected reader model (Turner & Hick 2015), key aspects raised by the participants included how they engaged when reading on mobile, preferred reading media, genres and reading applications, a frequency when reading on mobile, favourite mobile reading spaces and the challenges and obstacles encountered during mobile reading.

### **5.3.2.1 Original guidelines to participants for completing diary entries**

Dear Participant.

The following are simple guidelines meant to assist you in completing your entries in your mobile reading journals.

You may maintain an electronic or physical journal in which you record your daily mobile reading activities for the entire duration of the study.

- Record all your daily mobile reading activities in the journal.
- If you have decided not to read, note this down and where possible, give reasons for doing this.
- Note down the title and type of material you would have read on your mobile device, that is, textbook, novel, newspaper, website and magazine to mention a few.
- Write down where possible how many pages or chapters you read and for how long.
- Record whether you like or dislike what you are currently reading. Say why this is the case.
- Give the exact location where you read this, that is, at home, school, on a minibus to town, etc.
- Write anything else you feel like writing no matter how unimportant it might seem record it.
- Always remember to record the date and time you make each entry.
- Be truthful and honest as you make each diary entry.
- There are no restrictions or limitations to the length and number of journal entries you may make per day.
- Do not write your name or surname on any part of the diary. Use your code name or hashtag.

- Always bring your mobile reading diary to the weekly book club sessions.

Consult the researcher if you are still in doubt as to how you will go about completing your diary entries.

The mobile reading diaries were designed to develop a self-monitoring mechanism for the participants to track their mobile reading while for the researcher it acted as an on-going monitoring mechanism for the participants' out-of-school mobile reading experiences. The diaries were meant to provide a picture of how the participants configured and reconfigured their literacy practices around mobile reading devices.

**Table 5.4: Table showing key aspects from the mobile reading diaries**

Key aspect	Relevant dairy entry
Engagement while reading on mobile	<ul style="list-style-type: none"> <li>• Participant 6 - 23/02/18 - <i>"reading is boring"</i></li> <li>• <i>"Reading improves my grammar and essay writing."</i></li> <li>• Participant 21- 28/03/18- <i>"Reading really helps me with my vocabulary. Reading helps me get out of my comfort zone."</i></li> <li>• Participant 7 – 09/02/18 - <i>"I do not really like reading but I think it is good for people as it improves your vocabulary"</i>.</li> <li>• Participant 20 – 17/02/18 - <i>"I read because reading makes me brighter and intelligent and reading is a better way of spending my leisure time"</i>.</li> <li>• Participant 17 – 06/03/18 – <i>"Teen library books help me boost my confidence when outdoors; these books have moral teachings behind them"</i>.</li> <li>• Participant 14 – 24/03/18 – <i>"The book I favour the most and read almost every day although I read about less than fifty lines, except on Sundays, is my Bible. It helps me in different ways and I really enjoy reading it"</i>.</li> <li>• Participant 18 – 19/03/18 - <i>"I usually have an installed dictionary that allows me to search words in the passage"</i></li> <li>• Participant 17 – 25/02/18 - <i>"It is just fascinating to read whatever appears on the screen. I can even spend the whole day on-screen reading about young love. I do not care about my surroundings or what to eat at all."</i></li> </ul>
Reader identity	<ul style="list-style-type: none"> <li>• 23/02/18 Participant 6 - <i>"I am more active. I like to play outside than sit down and read"</i></li> <li>• 16/02/18 Participant 9 – <i>"I try not to read most of the time and tend to play video games. The last time I read was the last time I was forced by my elder brother to read a novel. In my life, I have never finished a novel properly"</i>.</li> <li>• Participant 9 – 21/03/18 - <i>"I have changed my reading behaviour since I started attending the mobile reading class. And from now on, I can even share this mobile reading with friends [across] the seas, different continents too"</i>.</li> </ul>
Preferred reading media	<ul style="list-style-type: none"> <li>• Participant 12 – 28/03/ 18- <i>"I've never liked using a mobile phone to read a book because I don't understand"</i></li> </ul>

	<p><i>it. I feel like a person needs to read a book of physical existence although it is the old-fashioned way."</i></p> <ul style="list-style-type: none"> <li>• Participant 3 – 18/02/18 - <i>"I don't like using my mobile phone to read I see it as a distraction actually because on phones you have all these social media and WhatsApp and always there is [a] notification so I prefer reading the natural material books."</i></li> <li>• Participant 13 – 07/03/18 - <i>The books I normally read are physical and from my smartphone. I usually find more interest in physical books I read because I can be able to carry them to school.</i></li> <li>• Participant 18- 13/03/18- <i>"I like reading both physical books and on my phone because with physical books I can jump back on chapters comparing characters, investigating why certain things are happening relating to a person's past".</i></li> <li>• Participant 18 – 13/03/18 -<i>"On my smartphone it is easier because I can read five books at once".</i></li> <li>• Participant 23 – 22/02/18 – <i>"I rather read e-books because they are more interesting for me, I don't have to look for a book but I can just search for the book I want to read".</i></li> <li>• Participant 19 – 12/03/18 – <i>"I have a little library of mine where it has all my books and other pieces of articles that one may be interested in reading. My little library of mine is on my tablet".</i></li> </ul>
Genres and reading applications	<ul style="list-style-type: none"> <li>• Participant 14- 14/03/18 -<i>"I like reading books based on cartoons with images in colour with less than thirty pages".</i></li> <li>• Participant 23- 25/03/18 -<i>"I use an application called free books on my tablet to read a wide range of books. This app lets me read books by [a]claimed and well-known authors like Charles Dickens Unlike my friends I do not read Wattpad books because the books do not give me a sense of nostalgia".</i></li> <li>• Participant 19- 21/02/18 - <i>"I love reading novels like 'Dark Diaries' and 'Diaries of a Wimpy Kid'".</i></li> <li>• Participant 18-16/02/18- <i>"I love a bit of mystery, total reality or rather circumstances where I end up feeling like the characters for example when they cry, I sob, when they shout I defend them too. So, it really changes my mood, mostly I become happy, anxious to read and interested."</i></li> </ul>
Favourite mobile reading spaces	<ul style="list-style-type: none"> <li>• Participant 5-MRJ-03/03/18 - <i>"I only read physical books at school because then I will have time to go to the school library. But when I am at home I read mobile books on my kindle"</i></li> <li>• Participant 5 - 03/03/18 – <i>"I only read physical books at school because then I will have time to go to the school library. But when I am at home I read mobile books on my kindle".</i></li> <li>• Participant 10 – 26/02/18 - <i>"When I am at home I read mobile books on my kindle and sometimes use audible because with audible it can read the book to you and you won't have to swipe to change".</i></li> </ul>
Frequency when reading on mobile	<ul style="list-style-type: none"> <li>• Participant 14- 13/02/18 <i>"Usually I read on weekends when I am not going to school because on weekdays I will be studying so basically my leisure time is on weekends".</i></li> </ul>

Challenges and obstacles	<ul style="list-style-type: none"> <li>Participant 18 – 15/02/18 - <i>The only problem is I have to charge my phone unlike a physical novel that is forever ready to read</i>"</li> </ul>
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### 5.3.2.2 Concluding remarks on the mobile reading diaries

The mobile reading diaries as a monitoring mechanism were designed to progressively monitor how MRDs could be used to change the reading habits of a group of Zimbabwean adolescent learners. Some key lessons were learnt from the data derived from the mobile reading journals. Through the instrument, the participants were able to report in their words their mobile and non-mobile literacy practices. One key observation garnered from the mobile reading journals is that if mobile devices are to be successfully used to transform the literacy practices of adolescent learners, then, the adolescent learners should play a leading role in defining and setting the parameters of mobile reading. Mobile reading, just like a handshake, should be passed from one adolescent learner to the other by the adolescents themselves.

### 5.3.3 Data from the focus group interviews

The focus group interviews were evaluative. This enabled the participants to capture reflective moments in their mobile reading experiences (see annexure J for a sample of the focus group interview). The evaluative nature of the focus group interviews provided an opportunity for the researcher to address the fourth sub-aim of the study. The focus of the fourth sub-aim was to assess the impact MRDs had on the attitudes and perceptions of a group of adolescent participants towards reading for self-enrichment (See section 1.7.2).

The focus group interview data was in two parts, the first part being a letter writing task based on the mobile reading experiences of the participants. Second, the discussion was guided by a set of plenary discussion questions which were a follow-up to the issues raised in the first task. Like data from the literacy practices interviews, the data from the focus group interview was transcribed using the word processing software Microsoft Word. In analysing the focus group data, the researcher used the participant-based group analysis approach (Ritchie, Spencer, O'Connor, Morrell & Ormston 2013:340). Here the researcher drew up a matrix of each participant's contributions during the focus group interviews and analysed these according to group dynamics such as the interaction between group members, level of participation and the views on mobile reading which developed from the discussion. The participants expressed their successes and failures during mobile



reading. They also expressed their feelings about mobile reading and the lessons they learnt from reading on mobile devices (See Annexure R for the matrix).

### **5.3.3.1 Original questions to the focus group interview**

The focus group interviews addressed the research question which aimed to establish how the use of mobile reading devices (MRDs) would change the attitudes and perceptions of a group of Zimbabwean adolescent learners towards reading for self-enrichment. The purpose of the focus group interviews was to merge and evaluate information on the participants' mobile reading journeys by eliciting personal responses based on the participants' first-hand accounts of their mobile reading experiences. The focus group allowed the participants to articulate their views on mobile reading. The following is an outline of the original question administered during the focus group activities.

*Task-based focus group discussion for adolescent learners- Letter to a friend*

*Background Information for participants*

A friend of yours has just learnt about mobile reading. S/he is keen and eager to know more about mobile reading.

#### **Task 1**

Write a letter to your friend, sharing your own mobile reading experiences. In your letter, include some or all of the points included below (You are also free to add points of your own).

- What did you like most about mobile reading?
- What did you dislike about mobile reading?
- Your favourite reading materials
- Your favourite mobile reading place
- Has mobile reading benefited you in any way?
- Would you continue with mobile reading without the guidance of your teacher?
- Has your reading behaviour changed since you started mobile reading?
- Would you recommend mobile reading to your friend?

This was an ice breaker activity meant to prepare the participants for the main plenary session of the focus group discussion. The idea was to stimulate the participants to seriously think about and consider their mobile reading practices based on the mobile reading programme. The written task enabled the participants to commit their original ideas, thoughts, emotions and experiences of mobile reading to paper first, without necessarily being blemished by the views of other participants. These written contributions formed the backbone of the main focus group discussion as these formed notes the participants could refer to as they further elaborated their views on mobile reading.

*Focus group interview questions for plenary discussion*

**Task 2**

- As a teenager, do you like engaging in mobile reading?
- Which device do you use for your mobile reading and which is your favourite mobile reading application?
- Do you think mobile reading has changed the way read? (E.g. reading habits, interest in reading, time spent reading, amount, etc.)
- What motivates you to read on your mobile device?
- How do you feel when you read on mobile?
- What do you think are some benefits/ advantages/ joys or pleasures you have experienced while reading on mobile?
- What are some challenges/ problems/ disappointments you have experienced while reading on mobile?
- Do your friends read on mobile? Do you share stories on social media? Would you encourage friends to do it?
- Do you like physical books or mobile books?
- Would you say you are changing into a mobile reader?

The plenary questions of the focus group interview were designed to stimulate discussion on the participants' accumulated mobile reading experiences throughout the study. The questions were designed to help the participants to brood and to put their mobile reading into perspective. This enabled the researcher to gauge the degree to which mobile devices were impacting the reading lives of the participants.

### 5.3.3.2 Concluding remarks on the focus group interview questions

On the whole, the focus group interview played a pivotal role in mining data for this study which proved to be very critical and instrumental in developing a portrait and painting a picture of the mobile reading habits of a group of Zimbabwean adolescent learners. Given its evaluative role in this study, the focus group interview enabled the exploration and emergence of themes like motivation and engagement to read on mobile, mobile reading and the development of the adolescent personality, becoming mobile readers and obstacles or barriers to mobile reading.

### 5.3.4 Data from the researcher's field notes

The researcher recorded as much as possible every mobile reading encounter he had with the participants during the mobile reading sessions. The researcher would jot down reflections, observations and informal conversations in a notebook in private in his car while memories of the encounter were still fresh in his mind (See annexure M for a sample of formal typewritten field notes). The recollections which were jotted in the researcher's notebook were transcribed and formally typed using Microsoft Word into formal field notes. In analysing the data in the field notes, the researcher attempted as much as possible to paint a thick description of what transpired during the mobile reading which was done when the book club met.

**Table 5.5: Table showing summary findings of researcher's field notes**

<b>Date</b>	<b>Observation/Reflection</b>	<b>Emerging theme(s)</b>
30/01/18	<i>Introduced myself and the study to the Principal, Mr Munhenzva. He acknowledges that we are in a technological age and that we can only ignore tech in schools at our peril.</i>	-Barriers to mobile reading -Influence of the school on mobile reading
09/02/18	<i>Ms Sigauke reminded some learners that they are allowed to carry their cellphones to school for the mobile reading sessions. Apparently, the learners are so conditioned to leaving their phones at home in compliance with school rules.</i>	-Influence of school on reading
13/2/18	<i>-Just enquired from one of the participants about the Wi-Fi access at the school. Learners have no user rights or access to Wi-Fi at school; it is for teachers and the administration. -Participant number 1 was very instrumental in ensuring that every other participant has downloaded the worldreader application. Bought data bundles for everyone.</i>	-Cost of mobile ownership -Access to data
9/3/18	<i>The male participants were yet to get round to start reading- claim lack of time – sense lack of motivation.</i>	-Motivation -Perception/attitude towards reading- reader identity.

08/06/18	<i>Participant 8 who is normally vocal about her reading was uncharacteristically quiet. I talked to her about our way out and she told me that her parents had taken her phone because she was up reading late.</i>	-Parental influence on mobile reading -M-reading obstacles
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### 5.3.5 Triangulation

In the end, the findings from the various data sources used in this study were combined and triangulated. Triangulation is a process that entails the combination and use of a multiplicity of methodological approaches, theories, data sources and investigators to address a research question (Heale & Forbes 2013:98). Points of convergence amongst the data were taken note of as these helped to increase the credibility of the findings. The divergent or negative cases helped to enrich the findings of the mobile reading experiences of the adolescent learners as they demanded the researcher to examine them critically and reflexively in generating plausible interpretations and explanations for their occurrence.

### 5.4 Presentation of data

The data collected in this study revolved around the main research question which sought to address the extent to which a group of Zimbabwean adolescent learners was prepared to use their mobile devices like phones and tablets to read for pleasure ahead of other pleasurable functions offered by their mobile devices. The data presented were drawn from different qualitative data collection methods. These data collection methods include the literacy practices interviews, mobile reading diaries, researcher's journal and focus group discussions.

In keeping with Bronfenbrenner's model, the thematic findings of this study have been grouped to conveniently align with the four ecological levels he proposed in his model. These four levels are the microsystem, mesosystem, exosystem and macrosystem (See section 3.3.1 for a discussion on Bronfenbrenner's model).

The data is discussed under four themes that emerged from the data analysis. The themes are:

**Theme 1:** The personal literacy characteristics of a group of Zimbabwean adolescent learners.

**Theme 2:** Proximal processes shaping the mobile reading habits of a group of Zimbabwean adolescent learners.

**Theme 3:** Technological contexts shaping the mobile reading habits of a group of Zimbabwean adolescent learners.

**Theme 4:** Becoming mobile readers - a group of Zimbabwean adolescent learners reads on their terms to develop a mobile reading culture

The data collection methods used in this study will be presented using a simple code that represents the method of collection and the participant's source of information. The literacy practices interviews are represented with the acronym LPI. LPI is short for literacy practices interviews. Hence every verbatim quotation taken from the literacy practices interviews and used in this discussion is indicated in brackets as follows: Participant 1-LPI. The mobile reading journals are denoted by the code Participant 1 MRJ meaning that the data is taken from a contribution made by participant 1 and that the source of the data is the mobile reading journal. The code Participant 1 FGD means the source of the data is from the focus group discussion. Last, the researcher's field notes are denoted by the abbreviation RFN. Reference to the literature review is also included and these allusions to the literature review are often highlighted in parentheses for easy linkages and connections.

### **5.5 Theme 1: The personal literacy characteristics of a group of Zimbabwean adolescent learners**

Under this theme, data relating to the adolescent participants' literacy microsystem is discussed in depth. The distinct patterns of literacy activities, reading roles and reading interpersonal relationships as experienced and narrated by adolescent participants in the literacy microsystem were analysed.

In chapter 3, section 3.4 provided a detailed description of the generational characteristics of the adolescents. The adolescent participants of this study were identified as Generation Z. The researcher used the literature review as a starting point for the analysis of the learner's responses about their literacy microsystem. From the data collected, the participants defined their reading personalities. They identified the different reading role models in their reading lives and how these supported the development of their reading personalities. Lastly, the participants described the microsystem within which their reading personalities have been shaped overtime.

### **5.5.1 The reader identities of a group of Zimbabwean adolescent learners**

In this section, findings on the pre-study mobile reading identities and mobile reading identities of the participants are presented. The data revealed three distinct forms of reader identities among the participants of the study. These reader identities are formed because of the adolescent participants' self-conception about their literacy abilities (Smith 2014:36). Individual reader identities have been developed and are shaped by the participants' perceptions and attitudes towards reading for leisure. The researcher identified three reader identities for the participants of this study which are eager readers, the 'fifty-fifty' readers and non-readers. Of the twenty-three participants, thirteen were identified as readers, three as fifty-fifty readers and nine non-readers. The three reader identities are discussed in sections 5.6.1.1 to 5.6.1.3.

#### **5.5.1.1 Eager readers**

In analysing the eager reader, this study was guided by Fountas and Pinnell (2001 cited in Meier 2016:21) who define in the strictest sense an eager reader as an individual exhibiting a litany of different positive reading attributes. Eager readers read voluntarily and they talk about reading. This type of reader knows authors and their different styles; they reflect on their reading and make critical connections. The participants of this study who defined themselves as readers did so based on some reading behaviours and practices identified by Fountas and Pinnell. They also cited other habits not specifically mentioned as well.

The first behavioural aspect that guides some participants to define and position themselves as eager readers is their self-efficacy, which is their belief in their capability to read well. This group of participants considered themselves eager readers because they believed and knew that they have acquired a high level of reading proficiency and reading competence. This allowed them to consume leisure reading material regularly and at a fast rate as Participant 12 alluded in the literacy practices interview excerpt below:

*"I am a type of person who loves reading... Most of the people I am around with are shocked by the way I read because I am a very fast reader. Some think I skip pages but that is one thing I could never do..."*

[Participant 12- LPI]

Participant 12's identity as a reader is further affirmed by the frequency of her entries in the mobile reading dairies and the number of the book reads during the mobile reading initiative. Participant 12 had the number of diary entries totalling thirty-eight and the most books read during the period of the study totalling five books.

Reading abilities like speed and comprehension are also other hallmarks of an efficient reader. As Participant 12 stated, she formed her reading identity around these abilities as it helped her to build her confidence and self-esteem as a reader amongst their peers. As a consequence, Participant 12 continued to cultivate and develop her reading skills to a higher level of proficiency because she reads frequently. This trait exhibited by the participants is what is described by Stanovich (1986 cited in UNESCO 2014:13) as the 'Matthew effect'. The Matthew effect when used in literacy development refers to a situation where people who read often become better readers and people who do not read cannot acquire habits of literacy, which can lead to problems in developing new skills. Therefore, practice shapes the readers' reading experiences and in turn, reading experiences shape the readers' ability.

Some participants viewed their ability to read as a positive influence in the development of other literacy-related skills such as writing. The adolescent participants who considered themselves as readers also perceived themselves as talented writers as participant 3 explained:

*I'm really good at poetry like back in primary [school] I used to write a lot of poems and I used to go to competitions for poetry and short stories. I used to read them a lot...*

[Participant 3-LPI]

It is indeed a widely held perception that individuals who read extensively for leisure perform well in written tasks. Evidence of some readers' prowess as a writer is aptly displayed in the quality of their mobile reading journal entries. The quality of the writing is elaborate, clear, concise and coherent as expressed by fourteen-year-old Participant 18 in her diary entry of 9 March 2018 where she wrote:

*Right now, I am currently reading 'A Prisoner of Birth' by Jeffrey Archer and I would say I last read it the day before yesterday but quickly lost interest because of something that crossed my mind, just threw me off and I exerted my anger on the book and I just threw it to the end of my bed.*

[Participant 18 -MRJ- 9/3/18]

These findings are also consistent with earlier research by Sakurai (2017:142) who found a positive correlation between the amount of extensive reading and writing performance of a group of 157 Japanese ESL university students.

The identity of the participants who perceived themselves as readers was also enhanced and reinforced by the belief that reading develops their intellectual ability and it makes

them smarter. Participant 20 aptly expressed this belief when he wrote in his mobile reading journal: *"I read because reading makes me more bright[er] and intelligent"* [Participant 20-MRJ-28/2/18]. It is clear that reading ability, reading skills level and writing performance are important determinants in constructing perceptions of how adolescent learners define their reading personalities. Knowledge of one's reading ability and the associated skills gain instils confidence amongst the learners. As such, the participants do not hesitate to read for leisure because they can do so. This attitude is confirmed by Participant 2 in the focus group discussion who felt that his reading identity had changed as a result of engaging in mobile reading. *"My reading behaviour changed because I became confident on how I would talk about the history of footballers with my friends"* [Participant 2-FGD].

The knowledge and belief in one's reading ability formed a natural desire and appetite to read and read some more. Sometimes the participants also could not pinpoint the source of this urge to read. They just had this inexplicable feeling which drove them to read. Participant 12 describes this incomprehensible urge to read as follows: *"Adventures [and] mystery novels are my type of novels. They get me all excited in a way that I can't just explain"* [Participant 12-LPI]. This mysterious feeling and inclination towards reading can be interpreted as an obsession to read. As a result, the reader identity of the study participants can at best be compared to that of an addict driven by an unknown and mystifying impulse to read. Therefore, another personality profile of the reader which emerged from the participants' responses is that the reader is addicted to reading as highlighted below.

This addiction to reading first manifests itself in the form of a strong and burning desire to read as Participant 19 explained: *"When I don't read a novel in a whole month, it's like there's a fire shut up in my bones"* [Participant 19-LPI]. Sometimes this impulse to read is so ferocious so much that the reader will devour volume upon volume and entire collections of books or novel series at a devastatingly fast rate like participant 12 does:

*Of all the book collections I have read I would say 'The Cherub' and 'Nancy Drew' books are my favourite. I have read almost every 'Nancy Drew' book that has been available to me and I have enjoyed every second of it. Although I just started reading 'The Cherub' agents books I have read about four of them.* [Participant 12-LPI]



This addiction to books also manifested itself during mobile reading when Participant 8 alluded to her likely mobile book addiction in the focus group discussion when she points out in her letter to a friend that, *"I feel bored these days because my parents took my phone because I was up at 3am, which is likely to disadvantage my reading"* [Participant 8-FGD]. It seemed the only tonic or remedy to this reading obsession was to continue to read. Kaiser and Quandt (2015:1) euphemistically describe the book addict as 'the heavy book user'. A heavy book user, according to Kaiser and Quandt, reads an average of eighteen books per year and they state that heavy book use helps the readers express their identity in social relations.

From the data, it was also evident that participants who matched the reading addict profile would even go as far as repeating a previously read text to quench this appetite to reading as Participant 20 alluded. *"I can't spend a day without reading a book; I would rather repeat a certain book than read nothing."* [Participant 20-LPI]. Though the analogy of an addiction to books carries negative connotations of a drug abuser whose life is controlled by the substance they abuse, for adolescent literacy, however, this is a very desirable habit and is often encouraged. The major reason for this is that keen and enthusiastic readers are frequently viewed as being intelligent because they have made the deliberate choice to actively search for and gain knowledge through the medium of written text. This line of thinking is premised on the 'Matthew effect' in reading where there is more one reads the more they are likely to gain in terms of reading skills and knowledge.

As alluded to in the foregoing paragraph, some readers displayed a genuine love for reading and an aspiration to learn more from the pages of the different genres of reading materials the learners engaged with. The true reader would consider all reading genres as equal and none was undervalued as is clearly illustrated from one participant's response in the excerpt from the literacy practices interview below.

**Researcher:** *Do you consider yourself a reader?*

**Participant:** *Yeah, I do?*

**Researcher:** *Why?*

**Participant:** *Because of my love for novels and learning more about English and literature and I love poetry.*

[Participant 3-LPI]

It is clear that readers were conscious of both the intrinsic and extrinsic value leisure reading has on their in-school and out-of-school learning. This genuine love and aspiration to read also grew from consciousness within the participants that through reading, they gain both concrete and tacit knowledge which they can use to make sense of their adolescent worlds.

Most of the adolescent learners in this study were aware that their young lives are still very much devoid of meaningful life experiences and ideas. They understood and appreciated that their youthful lives are an apprenticeship and that they are on a continuous journey of self-improvement. As such, the young readers defined and organised their lives around what they read. For the adolescent learners, the authors of the books they read acted as mentors and life coaches and what they read in the books also acted as a source of inspiration for ideas as Participant 5 pointed out:

*I like reading books whenever I'm free and I like learning new words. I also like taking in new ideas from the author and changing them into my own.*

[Participant 5-LPI]

It seems some of the young readers also took every opportunity to apply what they read to their personal everyday experiences. Participants 18 and 11 explained how they use what they read to construct and express their identities:

*I read motivational books and biographies of successful people. This is because when I read their life stories of what the people had to adjust to becoming the great amazing people they are today, it just gets into my head, then, I have the motive to become an amazing person by becoming a better version of myself and taking steps to becoming successful.*

[Participant 18-LPI]

*I love reading motivational and inspirational books, adventurous as well as true-life stories. Motivational books as the name motivate me to just stop sitting and do something.*

[Participant 11- FGD]

They also used the experiences of the characters they encountered in the various texts to mould and model their life dreams, set their long term and short-term goals and develop their ambitions and aspirations as Participant 11 explained in the focus group discussion as she reflected on her mobile reading experiences:

*For example, the book 'Thirteen things successful [people] don't do'. This book got me thinking a lot. I realised why at times I do not succeed in achieving my goals. Now I have begun a new successful lifestyle."*

*The book 'Gifted hands' told me about the true life of Ben Carson. This book did not only help me to gain information about this man but made me want to become a neurosurgeon someday.*

[Participant 11-FGD]

These findings build on prior research which has uncovered that the literacy practices during adolescent years have a strong bearing in identity formation as they help to help them navigate this period of intense storm and stress in their lives (Smith 2014:37). It is also evident from the foregoing findings that the literature the young adolescent readers consumed had a positive impact on their young lives as it enriches their experiences. It also allowed them to dream big while at the same time unlocking and unravelling for them some complex mysteries life the world throws at them.

All the participants in this study were bilingual as they are sufficiently competent in two out of the sixteen of Zimbabwe's official languages. These languages are predominantly English and Shona. Participant 18 pointed out her preferred language choice here as follows:

*I also love Shona novels. I think that I would rather read a Shona novel than an English novel. The last Shona novel I read is 'Minista munhuwo' by Bisette Chitsike and another one but I did not manage to read the whole of it is 'Kutonhodzwa kwaChauruka'.*

[Participant 18-LPI]

The linguistically rich and diverse backgrounds of the participants worked positively in shaping their identity as readers as they could easily switch between texts in the two different languages. Preference to read in one language over the other is not necessarily a sign of weakness in one language but simply a matter of choice. It is encouraging to notice that some of the young participants often read Shona which is their home language. This could help to retain the influence of culture in the lives of young people in Zimbabwe. A similar observation on this freedom of choice when it comes to reading language amongst bilingual learners is also captured in a study conducted in Singapore by Majid, Kai Jie Ng and Ying (2017:1). The study found that the motivations of bilingual learners for leisure reading were considerably different, with English being read more frequently than mother tongue languages.

In the final analysis, it is clear from the foregoing discussion that the thirteen participants identified in this study as readers are very good readers as shown by the reading behaviours they exhibited. These good reading behaviours included their reading self-efficacy, proficient reading ability, reading with speed and comprehension, reading frequently, well-developed complimentary literacy skills like writing and being comfortable reading in over one language. Other good reading behaviours exhibited by the participants included heavy book use, which is often characterised as a reading addiction.

### 5.5.1.2 The 'fifty-fifty' reader

The word 'fifty-fifty' is a term coined by one of the participants of this study. The term has been adopted and borrowed for use in this study to define the second type of reader personality which emerged amongst the participants of this study.

*I honestly like and dislike reading. I am more of a fifty-fifty kind of person when it comes to reading as a leisure habit.* [Participant 21MRJ 13/03/18]

The fifty-fifty readers are undecided about their reader identity. They are the middle-of-the-road kind of readers who often sit on the fence as they occasionally engage in limited reading. In this study, the number of mobile reading journal entries of the fifty-fifty reader averages fewer than fifteen, with a maximum of three books having been read during the mobile reading initiative. The fifty-fifty reader will swing to and fro along the continuum from the eager reader's end to the non-reader's side in a whim without warning or giving notice. The fifty-fifty reader is torn between the two worlds... "*I do not really read that much to call myself a bookworm but I read in-between*" [Participant 5-MRJ-12/02/2018]. There could be different reasons why the fifty-fifty readers are sometimes keen to read and sometimes not. This could be because of the type of reading material or other interests such as an upcoming event.

The fifty-fifty reader is an individual who is situated at the reading crossroads and once confronted with a choice on which route to take between to read and not to read, they will most likely choose the option not to read:

*I do not read often, mostly because I come out of school at five o'clock and I have to do my homework and revise for my tests. On weekends, I have a choice. This is either to read or watch television. I choose to watch television. During the week, I do not have the time to watch TV because I have a lot to do so I choose to watch television on the weekend. Once I*

*start watching it, I don't stop, then, I end up not reading.*  
[Participant 22-LPI]

The fifty-fifty reader is usually an efficient and skilful reader who simply remains indifferent and disinterested towards leisure reading. The fifty-fifty readers only tend to read what has been assigned in school and unlike the reader, they do not go the extra-mile or take initiative to read for leisure. Participant 9 in the mobile reading session held on 20 March 2018 lamented that she could not read because she was busy. Upon further probing from the researcher, she claimed to be "*busy doing everything except reading*" [Participant 9-RFN-20/03/18].

Fifty-fifty readers did, however, acknowledge and recognise the value of reading and on the few occasions that they chose to read, they are likely to be put off easily by some personal disposition or extrinsic factors. They are conditional readers who read when the conditions best suit them as participant 21 described in one of her reading moods in her mobile reading journal:

*Not that reading is bad or anything it is just that it depends on which book I am reading and for what. I dislike reading because it usually makes my eyes sore then less than I know it, I am already dosing.* [Participant 21-MRJ-27/03/18]

The fifty-fifty readers will read if they want to or feel like it. As one participant puts it: "*I usually read three to four novels a term; that's when I am in the mood*" [Participant 2-LPI]. They need to be extrinsically motivated to read because they have the potential to transform into natural readers. However, if left to their means and devices, the fifty-fifty reader is likely to descend into becoming a non-reader. Hall (2012:370) explains that the 'fifty-fifty' reader identity is a necessary phase in the formation of adolescent reader identity. This is a transitional phase where the adolescent learner is rewriting their school-made reader identity into a self-made reader identity, hence the seemingly apathetic state.

While in theory, it is easy to categorise reading personalities as readers or fifty-fifty readers, however, it is much more difficult to delineate the fifty-fifty reader from the reader or non-reader because they have extremely complex reader personalities. A very thin, vague and blurry line separates the three reader personalities of some participants in this study. It is clear from the foregoing evidence that the fifty-fifty reader possesses traits from both readers and non-readers, therefore, making them very difficult to identify. Only two out of the twenty-three participants in this study fall into this category.

### 5.5.1.3 Non-readers

The last reader profile that emerged from the participants' responses in this study is that of the non-reader. Non-reader, as the term implies, refers to an individual who describes himself/herself as disliking any kind of reading, is withdrawn from reading and will avoid reading at all costs (Hall 2012b:244). The mobile reading practices (non-reading practices) shown in the mobile reading journals exemplify a strong dislike for reading. Most of the non-readers wrote not over five entries in their diaries and some extreme cases, they failed to finish reading a single book or return the mobile reading diaries. In most cases, non-readers exhibited reading behaviours and practices that are usually the exact opposite and are often in sharp contrast to that of readers.

Non-readers possess what may be described as a reader's inferiority complex and they will avoid acts like reading in public or reading to an audience. Non-readers tend to view themselves as lacking the appropriate reading skills and ability to qualify as a reader. In other words, they have not gained enough reading competence and proficiency to consider themselves good readers. They read below their grade level and the taking part non-readers in the study were aware of their reading skills deficiency as shown in the literacy practices interview extract from Participant 6 below:

*No, I do not consider myself a reader. I have never been a good reader but I can read. It's just I don't enjoy reading. I would rather someone read to me. [Participant 6-LPI]*

The researcher noted this apathetic and negative attitude towards leisure reading, particularly, among the male participants of the study. In session five, two weeks after the introduction of the mobile reading application, the researcher made the following observation in his field notes: "Some of the male participants are yet to get round to start reading; some of the excuses are very flimsy. I simply sense a lack of motivation. I need to come up with a way of motivating them" [RFN 9/3/18]. Prior research has also uncovered that these negative beliefs in one's reading ability, as displayed by Participant 6 above, destroy a learner's enthusiasm to read and they will end up passing over opportunities to read (Hall 2009 cited in Aukerman & Schuldt 2015:116). The fear of publicly being humiliated or ridiculed leads to a loss of immense reading opportunities that could have otherwise provided improvement.

Once the young learner is reading below the expected grade level, the pitch and tone of the language they encounter in the texts they are expected to read in the school also

become more demanding and inaccessible to them. This results in frustration at their sudden heightened inability to read and the young learner disengages and regresses into becoming a non-reader as shown in the data conversation with Participant 1 below:

**Researcher:** *So, do you consider yourself a reader?*

**Participant:** *No, I'm not a reader. I'm not a good reader?*

**Researcher:** *But do you read a lot? Would you consider yourself as someone who reads a lot?*

**Participant:** *Yeah! I try to read but some things... they'll be like deep English.*

[Participant 1-LPI]

This consciousness towards their reading deficiency becomes a reference point around which the individual defines their own reading identity. In the case of Participants 1 and 6, it is evident that they have developed a low opinion of themselves as readers. This poor self-conception has been formed out of an awareness that they do not have the required reading skills and ability which are expected of their age. Usually, this low opinion of oneself as a reader translates into a blatant dislike and withdrawal from reading. As a result, lack of reading skill is a critical element in defining reader identity amongst the adolescent participants of this study. Participant 1 also touched on the important issue of textual language when he describes it as "deep English." Learners' language skills, if they are studying through the medium of English as their second language, is yet another issue that one must consider when examining competence in reading. In this case, 'deep English' becomes a barrier for the participant on their journey of attempting to become a reader.

Non-readers also judged and considered themselves as such based on the volume and frequency of reading they did not do. Participant 7 in the literacy practices interview said: "*I do not consider myself a reader because I hardly read*" [Participant 7-LPI]. Unlike the reader, the non-reader does not possess the compulsion or burning desire to read for leisure. They lack the reading speed, language skills and reading stamina to endure an hour or two of reading a day. They feel that this is time-wasting and they would rather resort to other activities that are not as demanding as reading:

*I do not read at all because reading is not my favourite leisure activity unlike a person whose favourite leisure activity is reading. A person who enjoys reading could read up to three books every day but I could not read even one.* [Participant 16- LPI]

Non-readers would rather spend their time and energy engaging in other activities like Participant 6 who justified her non-reader identity when she wrote in her mobile reading journal: "*I am more active. I like to play outside than sit down and read*" [Participant 6-MRJ- 23/02/18]. This indifferent attitude towards reading breeds a loathing and disinterest towards reading among some of the participants. Non-readers say "*reading is boring*" [Participant 6-MRJ-23/02/18], hence reading did not feature anywhere on their leisure activity agenda.

While non-readers are aware of the value of reading and the potential it has for them in terms of knowledge gain and linguistic skills development, they still do not value reading. In the data clip below, Participant 13 alluded in the literacy practices interview as to how she turned to other forms of 'literacy' as an alternative source of gaining knowledge:

*I do not like reading because I am a person who enjoys watching educational films and documentaries and that's where I learn my knowledge and new vocabulary.* [Participant 13-LPI]

However, Participant 13's response seems to be a guilt-filled justification for their non-reading behaviour. It also seems clear from Participant 13's response that he does not regret not reading and as such engages in activities he feels are closely equivalent to reading in terms of value and importance just to compensate for his non-reading loss. However, the multimedia capabilities and features of mobile books have led some non-readers to recreate their reading identities around the new reading media. Audio books proved to be a popular means of shifting reader identity among the non-reader participants as shown by Participant 16's changed perceptions in the focus group interview when he asserted that: "*I like reading e-books because the kindle reads the book for you*" [Participant 16-FDG].

Reading is not part of the non-readers' nature and as such, they would rather turn to various other forms of media for entertainment and leisure ahead of reading. As participant 9 revealed in one of his reflective moments in his mobile reading journal, he wrote:

*I try not to read most of the time and tend to play video games. The last time I read was the time I was forced by my elder brother to read a novel. In my life, I have never finished a novel properly.* [Participant 9-MRJ-16/02/18]

Participants 13 and 9 both displayed an adolescent literacy practice which Alverman has grappled with since 2009. Alverman notes how literacy has taken on new meanings in the



technological milieu and she particularly cites adolescents as the dominant consumers of these new multi-literacies (Alverman 2009:14). She further contends that traditional forms of literacy acquired through print books have merely become a subtext in the cyber world and as such, reading professionals and researchers need to reconsider their understanding of what it means to be literate and literacy. Acquiring digital skills seems to be the new normal in terms of literacy skills acquisition and literacy practices amongst adolescent learners. This has also led to a new understanding of literacy and in research, reference is now made to multi-literacies.

#### 5.5.1.4 A typology of eager readers, fifty-fifty readers and non-readers

This typology presents a summary of the different traits of reader identities of the different adolescent learners who participated in this study. This typology will be used in the rest of the study to refer to the different reader identities in the study.

**Table 5.6: Typology of reader identities**

<b>Traits</b>	<b>Eager Reader</b>	<b>Fifty-fifty reader</b>	<b>Non-reader</b>
Reading ability	Skilful, fast and efficient	Skilful and efficient	Not skilled
Reading skill in relation to grade level	Reads beyond expected grade level	Reads to expected grade level	Reads below grade level
Value placed on reading	Values reading a lot	Aware of the value of reading but places little value on reading	Does not value reading
Frequency and amount of reading	Reads often and reads a lot	Reads occasionally and the amount of reading is limited.	Rarely reads.
Attitude towards reading	Likes reading	Likes and dislikes reading	Strong dislikes, dislike reading/ finds it boring
Preferred reading language	Comfortable reading in any language	Can read both languages but prefers to read in only one language	No language preference (sometimes language might be a barrier to reading)
Reading speed	Fast reader	Fast to average reading speed	Slow to very slow reading speed

Development of Other literacy-related skills (writing)	Writes well	Good writer	Struggles with writing
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The preceding findings on the reader identities of the adolescent learners were very critical in shedding more light on the first two research questions which sought to establish the status quo regarding the pre-mobile reading literacy practices and reading habits of the participants (see section 1.6.2). Furthermore, the second research question endeavoured to find out the participant's attitudes and perceptions towards leisure reading. The reader typology above evidently summarises how the different categories of Zimbabwean adolescent learners perceive leisure reading and how it consequently influence their reading habits and literacy practices.

### **5.5.2 Reading role models and how they influence the reader identity for a group of Zimbabwean adolescent learners**

The findings revealed that two spheres shaped the identities of the adolescent readers described in the preceding section above. According to Bronfenbrenner's Bioecological systems model, the home and school are two foundational microsystems in the reader formation of a becoming individual. When the two microsystems of the home and school interact with each other for the development benefit of the individual, this becomes a mesosystem.

As the young readers shared their reading narratives, it became apparent that they have grown into their current reading identities as a result of influences from either the home or the school as environmental systems and context that either reinforced or curtailed their literacy development. Regardless of reading on a mobile phone or not, the home and the school can act as promoters of positive leisure reading behaviours or they can act as barriers in the acquisition and development of such reading behaviours. It is apparent from the participants' reports that it is within these two realms that their identities as readers, fifty-fifty readers and non-readers have been formed.

#### **5.5.2.1 The home**

The home is probably the most important sphere in shaping children's and more specifically the adolescent learners' personalities as readers. It is within the home that participants have probably had their initial contact with books or other forms of leisure reading materials. Participant 12 explained how these early encounters made a huge

impression on her young mind and how they have left an indelible impression in her reading life.

*On my past birthdays, he would always get me books to read so I guess I have my father to thank for helping me realise my reading skills.*

[Participant 12-LPI]

The importance of the home as a primary reading sphere is also affirmed by some participants' in their mobile reading journals as they engaged in mobile reading. All the participants who identified themselves as mobile readers said they mostly read on mobile at home or during weekends. As Participant 14 wrote in his or her mobile reading diary: "*Usually, I read on weekends when I am not going to school because, on weekdays, I will be studying. So, basically, my leisure time is on weekends*" [Participant 14-MRJ-13/02/18]. Indeed the home along with family members like parents, siblings and relatives are very instrumental agents in shaping the reading personalities of the participants in this study. A fair amount of research has also shown that learners with parents who invested in their education have high literacy achievement rates (Moje & Tysvaer 2010:25; Ronald et al 2014:241).

The participants who defined themselves as readers earlier also reported that they had a reading mate or companion in the family who had strongly influenced their reading personalities. Participant 3 aptly illustrated how shared reading experiences within the family can be important in the reader identity formation process.

*I used to read with my uncle cause my uncle really loves novels as well but now he is in Gweru. He used to read me these stories that would tell me about the life of humans and how they would interact with their everyday environment and how the humans co-op with each other.*

[Participant 3-LPI]

A family reading mate is very critical in shaping the adolescent participants' reading personality as they often act as reading role models, reading to or with the adolescent learners. The African family context plays an important role in encouraging young adolescents to read as educational achievement is seen as a tool for emancipation from poverty and a form of upward social mobility (Mathangwane & Arua 2006:46) (See section 3.4).

For the non-reader, a different picture emerged from the research. Such reading role models are perennially absent from the lives of the non-readers and as such, there is no one to emulate or encourage them to read:

**Researcher:** *Do you have time for reading in the family where you sit down and you say today, we are reading this story for each other?*

**Participant:** *No, cause both of my parents usually work out of Zimbabwe.*  
[Participant 1-LPI]

The participant's parents are absent from his reading life largely because they live and work outside the country. This does not make them irresponsible parents, as they have made a sacrifice to create better economic and material circumstances for their family. The downside to this whole scenario is, however, that the parents' absence has created a vacuum, a lack of home-based reading role models in the reading life of the participant. As such, Participant 1 defines himself as a non-reader. Nevertheless, as the study ended, it was evident that Participant 1's involvement in the study had inspired him to recreate his reading identity as he confided to his friend in the Focus group interview written task:

*I once told you about that thing called mobile reading and it was good not just good but very good for me because I started being good at reading. For that, I will keep on reading the mobile reading.* [Participant 1-FGD]

Not all home environments seemed to nurture positive reading behaviours amongst the adolescent participants in this study. In the following data clip, Participant 9 expresses how family expectations on children's roles and responsibilities keep them away from reading.

**Participant:** *I can't read at home*

**Researcher:** *You can't read at home? Why not?*

**Participant:** *mmm busy. Doing stuff sometimes I arrive late at home*

**Researcher:** *You'll be busy doing what stuff?*

**Participant:** *Like sometimes with my mom doing busy doing other things*

**Researcher:** *Like cooking?*

**Participant...** *washing plates, chores...*

[Participant 9-LPI]

While it might seem at face value that the parent is unsupportive of their child's reading needs, this may be far from the truth. The roles and responsibilities described by the participant are traditionally embedded within Zimbabwean cultural values where every child is expected to play a part in the general upkeep of the home. The parent is not insensitive to their child's reading needs but there is a need for both parent and child to negotiate on the leisure reading needs of the learner. Some participants felt overburdened

by both their home and school schedules, which left them with very little time to read at all.

The obstructive role of parents in reading promotion is also confirmed in the following incident documented in the focus group interviews. Some of the participants' parents involved in this study were not comfortable with their children spending prolonged periods staring at their mobile phone screen reading digital texts. Although all parents consented to the participation of their adolescent children in the study (see annexure A), the unintended consequence of having their children engrossed and immersed in mobile reading was unforeseen. Even though no parent complained formally to the researcher, the reactions of some parents were quite telling. In an informal conversation with Participant 8, the researcher enquired about the mobile novel she was currently reading. In response, Participant 8 dejectedly responded that she was not reading as her parents had taken her phone away [RFN 8/06/18]. Upon further probing, it was evident that the participant's parents were concerned with what they viewed and felt was mobile phone abuse by their child. The sudden increased engagement and indulgence by the participant on mobile was a source of anxiety for the parents. Participant 8 also expressed her feelings towards this development in her focus group letter:

*I feel bored these days, my parents took my phone because I was up at 3:00 am which is likely a disadvantage to my reading [studying]. I feel like I had more to gain than lose because most of my time I was not on social platforms but I was reading.* [Participant 8-FGD]

The reason for the reaction by Participant 8's parents is best explained by Kucirkova and Littleton (2016:39) who found that the greatest challenge for parents of digital natives lay in trying to strike a balance between the child's engagement in digital and non-digital activities. Nineteen percent of the parents in a study conducted by Ofcom (2017:191) also felt frustrated by their inability to control their children's on-screen time (See section 3.5.2 for a discussion on parents' role in shaping the digital reading habits of adolescents). Participant 8's parents took stern measures against their child as a strategy of regaining control over their child's digital and non-digital activities. These actions by parents, however, militated against the Participant's mobile reading practices.

### **5.5.2.2 The school**

The school is very important in the development of the participants' reading personality because this is where they learn to read. This is also where the standard for reading

achievement, competence and performance is defined. The school is the most essential reading domain and omissions or commissions committed by the school as far as reading is concerned can be very detrimental in shaping a reader's lifelong reading identity (Abodeeb-Gentile & Zawilinski 2013:36). (See section 3.2.2 on reader formation in Zimbabwean schools and section 3.2.4 on reading motivation). In their responses, participants cited various agents of the school like teachers, friends and peers and the general normative reading culture, the school setting as being very important in developing and shaping their reading identity. Unfortunately, the evidence emerging from the data also showed that the school could be the greatest obstacle is as far as shaping the mobile reading identities is concerned.

Teachers are the most influential reading role models in the school. Learners spend most of their time at school and in contact with their teachers. As a consequence, the teachers' reading philosophies often rub off onto their learners. In turn, these learners adopt these reading beliefs to become their own. Teachers create lasting impressions on their learners and some learners hold on dearly and fondly to these memories for so many years after they have parted ways with their mentors as Participant 20 recalled.

*My Grade seven 7 teacher [Name withheld] taught me if you say you can't read because it's noisy or silent or it's in a bus or toilet you never wanted to. [Participant 20-LPI]*

The grade 7 teacher's words were significant in moulding the participant's reading beliefs and values as Hall (2012:369) points out that teachers are the major source of labels that identify readers and non-readers in schools (See section 3.2.2). It is clear from Participant 20's words that some of the participants have built and strengthened their reader personalities based on advice from their grade seven teachers. The words and actions of teachers are very important in encouraging or discouraging learners to develop into readers or non-readers.

Classmates, friends and peers also contributed immensely to the creation of a reader identity amongst a group of Zimbabwean adolescent learners. As Participant 3 demonstrates, the peer group can have a very strong and positive influence in shaping the reader identities of adolescent learners.

*The novels I used to read in primary [school], my friend named [name withheld] she is the one who bought them for me. She is the one who told me that these novels are very interesting. So now, I gave those novels to*

*my younger sister; she is in grade five and she loves them as well and shares them with her friends at school.*

[Participant 3-LPI]

The most striking feature of this narrative is the knock-on effect (domino effect) that the peer group influence had on the participant's reading personality and of those around her. The participant's friend, the participant, the participant's younger sister and her friends have all created a reading chain. It is interesting and exciting to imagine how far back this chain started and how much further it will stretch. The importance of the peer group in promoting reader identity and literacy practices amongst adolescents is also enhanced when the participants read on mobile devices. Mobile devices promoted connected reading and enabled readers to share novels with friends regardless of time and space as Participant 9 pointed out in their mobile reading diary when they wrote "*I have changed my reading behaviour since I started attending the mobile reading class. And from now on, I can even share this mobile reading with friends [across] the seas, different continents too*" [Participant 9-MRJ-21/03/18]. These findings provide further insight into what Wigfield, Cambria and Ho (2012: 64) had earlier identified as a gap in adolescent literacy research, that is, the role of peers in valuing or devaluing the reading of others (see section 3.2.4 on reading and motivation). Elsewhere, Hughes-Hassell and Rodge (2007:28) report that 15% of the adolescent respondents in their survey say they are influenced to read for leisure by their peers.

The structure of the reader support system and reading promotion policy adopted in the school also went a long way in influencing and shaping the reader identity of the adolescent participants in this study. In this respect, the library became the epicentre of the participants' reading worlds. The library provided for the participants both a sanctuary for reading and access to a world of countless and timeless books:

*I like reading library books. I like reading books in the school library because they will be old books to read which are my favourite to read.*

[Participant 8-LPI]

The particular school at which this study was conducted has an open library policy where learners can visit the library to read or borrow books whenever they are free or feel like visiting the library. Such an open policy gives the participants the opportunity and autonomy to cultivate their own reader identities within the school as shown by Participant 1, a non-reader:

**Researcher:** *And how often do you go to the library to borrow books or reading materials?*

**Participant:** *At school?*

**Researcher:** *Even the local library in your neighbourhood any library.*

**Participant:** *Aah! I've never gone into a local library; only at school that's where I go.*

**Researcher:** *Yes, how many times do you go to the school library?*

**Participant:** *Referring to last year [2017] I've been there almost four times but this year I haven't gone.*

**Researcher:** *Ok, that's fine and you are not forced to go to the library?*

**Participant:** *No, you are not forced.* [Participant 1-LPI]

While this participant visited the library only four times in the whole year, it was refreshing to note how the school promotes and is accommodative of the different learner interests and reader identities. This could have been because of the influence of the library of the school. Similarly, research by Swanson (2011:6) confirms that successful school-wide reading promotion strategies are hinged on three conditions namely; making reading a top priority, modelling and support by adults in the school and the creation of environments that nurture reading (See Section 3.5).

The researcher also found that the school can militate against mobile reading. The use of mobile phones at the school where the study was conducted was strictly prohibited. The researcher had to get special permission for the learners to use and bring their mobile phones to school every Friday for the mobile reading book club from the Principal of the school. In a meeting held on 30 January 2018, the Principal acknowledged that they were in a technological age and that the school could only ignore technology at its peril. He, however, felt adamant about the role of mobile phones in the school, contending that the school had a reputation to protect and uphold Christian values and to appease all stakeholders. He contended that some stakeholders of the school were likely not to agree with the tenets of mobile learning. Although the issue of mobile phones tore him apart, he was, however, very pragmatic as he felt that his learners would benefit in a way from the mobile reading project [RFN-30/01/2018].

The teachers strictly enforced the mobile phone ban at the school. In most cases, the teacher who had been appointed by the school to monitor the researcher's interaction with the adolescent participants had to keep on reminding them at the start of each mobile reading session that they had been granted permission to bring their phones to school every Friday for the duration of the study. The conditions of use were also clearly spelt out. The



phone had to be switched off and kept in their bags, only to be switched on during the mobile reading project. Participant 1 also confided to the researcher that the school had a Wi-Fi connection but learners had no access to the passwords as it was meant for staff only [RFN 13/2/18]. The hostility towards the mobile phone in the school meant that all the participants did their mobile reading at home. The self-reporting tools in the form of mobile reading journals of the participants also corroborated the fact that the participants did all their mobile reading at home and not at school. As participant 5 wrote: "*I only read physical books at school because, then, I will have time to go to the school library. But when I am at home I read mobile books on my kindle*" [Participant 5-MRJ-03/03/18]. Li, Snow and White (2015:149) also acknowledge this trend in wide cell phone use by urban adolescents in the home environment than at school due to cell phone bans in schools in the USA.

Lastly, curriculum subjects offered in the school also had a strong and positive influence in shaping the reading personalities of the adolescent participants in this study. The school offers Literature in English as part of its Liberal Arts curriculum and this has gone a long way in shaping the reader identity of individuals like Participants 10:

**Interviewer:** *Do you share books with your friends?*

**Participant:** *Yes.*

**Interviewer:** *Which ones? Do you still remember any books that you shared with your friend?*

**Participant:** *Yeah, William Shakespeare I think we are doing it here [at school]... then I share with my friends.*  
[Participant 10-LPI]

In the focus group interview, Participant 2 felt that their literature studies at school had played a critical role in shaping his reader identity and vice versa. Participant 2 said: "*Mobile reading benefited me in my literature*" [Participant 2- FGD]. Literature is a reading-based subject and as such it exposes the participants to different literary genres and a wide variety of writings from different countries and epochs. It was clear that the study of literature turned some of the participants into reading and book experts of some sort, giving them the confidence to tackle formidable writers like Shakespeare and other classic texts like Dickens's *Oliver Twist*.

The findings in the foregoing section on reading role models continued to illuminate the first two research questions even further. These research questions interrogated the current

reading perceptions, attitudes, literacy practices and reading habits of the adolescent participants to this study (see section 1.6.2). In the final analysis, it was apparent from the narratives of the participants in this study that the school and the home were crucial players in the formation of the reading perceptions and attitudes they carried with them at the onset of the study. The home and school also played a complementary role in creating the conditions around which the adolescent participants could engage in reading and develop lifelong reading habits.

## **5.6 Theme 2: Proximal processes shaping the mobile reading habits of a group of Zimbabwean adolescent learners**

Bronfenbrenner described proximal processes as the engines of growth (Intellectual, Emotional, Social, Spiritual growth). In terms of this literacy development study, proximal processes referred to those as the engines of growth that drove adolescent participants to engage in mobile reading. This section analyses the reported reading behaviours, engagement and motivation of the adolescent participants as the engines that drove their mobile literacy practices (see sections 3.3.3-3.5.2). In this section, data were discussed under the following sub-themes: reading engagement on mobile and adolescent development, mobile reading and the intellectual development of a group of Zimbabwean adolescent learners and mobile reading and the emotional development of a group of Zimbabwean adolescent learners. Also, they included mobile reading and the social development of a group of Zimbabwean adolescent learners and mobile reading and the spiritual and personal development of a group of adolescent learners.

### **5.6.1. Reading engagement on mobile and adolescent development**

The study also used Guthrie and Wigfield's (2000) reader engagement model and Turner and Hick's (2015) connected reader model as an analytical frame of reference against which the pre-mobile reading and mobile reading habits of the adolescent participants were scrutinised. Though the two models only delineate two types of reader identities namely; that is, the engaged reader and the disengaged reader, the connected and the disconnected reader; the models remained largely relevant as analytical tools for this section of the study as they helped to address the third research question of the study. This question focused on investigating the different ways MRDs could be used to change and sustain the reading habits of a group of adolescent learners in Zimbabwe.

The key ingredient for reading engagement is the motivation (Guthrie et al 2004:403). Engagement and motivation are essentially different sides of the same coin. The connected reader model, on the other hand, facilitated the analysis of adolescent reading engagement and behaviour on screen. Digital reading is connected reading which entails the reader encountering, engaging and evaluating texts in virtual environments. The fundamental difference between motivation and engagement as they relate to mobile reading is that motivation is short term and short-lived, while engagement is more sustained and long-term. Given its short-lived character, motivation is more susceptible and amenable to influence an individual's mood and dispositions over a short period. Engagement, on the other hand, is developmental as it is more long-termed in appeal (Guthrie & Wigfield, 2000:47) (See section 3.3.3 on the reading engagement model).

As the adolescent participants engaged in mobile reading in this study, it became apparent that mobile reading not only serviced the immediate reading needs of the adolescent participants such as relieving boredom or passing time. It also became apparent from the data collected that mobile reading seemed to have a far greater impact on the intellectual, emotional and social developmental needs of the adolescent learners who participated in this study. In their own words, the participants expressed that they engaged in mobile reading to satisfy or fulfil some of their developmental needs (See sections 5.7.2 to 5.7. 4 below for a comprehensive discussion on the developmental needs of adolescents).

### **5.6.2 Mobile reading and the intellectual development of a group of Zimbabwean adolescent learners**

A group of the participants said they engaged in mobile reading to satisfy some intellectual learning or cognitive-developmental need. The adolescent participants of this study felt that mobile reading made them feel smarter as it enhanced some of their intellectual faculties like the concentration on a task. The opinion of participant 18 was: "*I believe mobile reading does make people smarter because of the visual display and colours which may lengthen your attention span*" (Participant 18- FGD). 65.21% of the participants affirmed that mobile reading had changed their reading habits. They noted that their reading habits had changed as they now found reading more interesting and spent more time reading. Participant 17 succinctly described the limitless possibilities offered by mobile devices for the incremental growth in both engagement and intellectual development as follows:

*Yes, I think it has because I might finish my library book and not have time to change but with mobile reading, I can read any time. I can even download a book and read it whilst in the car going somewhere. I am quite lazy and with my phone, I don't have to stand up and look for a book. There is also a wide range of books on the net and I am not limited (Participant 17 – FGD).*

Adding to this, the other indicators of intellectual development the participants reported also included gains and improvement in their English grammar, vocabulary and pronunciation as shown by participant 14 who said:

*Yes, it has changed the way I read; I used to read for two hours a week but now I read three-quarters of the day. It has helped me to improve my grammar and pronunciation of words (Participant 14- FGD).*

Access to academic websites for research while using their mobile phones to read also improved and increased as alluded to by participant 3 who explained: "*Sometimes when I am doing my researches for different subjects using my mobile device is quicker and easier*" (Participant 3 FGD). This scholarly growth is also corroborated by data from the face-to-face interviews where the participants mostly admitted that their mobile reading over the internet was limited to subjects like celebrity gossip, movies, sports and fashion trends. In the face-to-face interview, participant 13 said: "*I usually use the internet to read information about singers* (Participant 13-LPI) while participant 10 said:

**Participant 10:** *Yes*

**Interviewer:** *who, which particular....?*

**Participant 10:** *Sports*

**Interviewer:** *Ok, so sport heroes. (Participant 10-LPI)*

This clearly shows a growing inclination towards reading and engagement with more intellectually stimulating reading materials and texts.

The adolescent participants of this study did engage in numerous intellectually stimulating actions as they read on mobile and some of the reasons for doing so are outlined in the following subsections.

### **5.6.2.1 Reading to satisfy a cognitive and linguistic challenge**

One dimension of intrinsic motivation that spurred the participants to become engaged readers was the level of linguistic, cognitive and emotional complexity posed by the novel or text the participant was reading. Participant 18 showed her desire for thrilling, exciting and yet emotionally and intellectually demanding and engaging literature when she asserted:

*I love a bit of mystery, total reality or rather circumstances where I end up feeling like the characters, for example, when they cry, I sob, when they shout, I defend them too. So it really changes my mood. Mostly, I become happy, eager to read and interested.* [Participant 18-MRJ-16/02/18]

Participants, who considered themselves as adept readers actively sought out reading materials that interested them, which were a notch above their reading level and in which they became actively drawn into the action. These findings are consistent with Guthrie and Wigfield's (2007:295) assertion that readers with a high self-efficacy prefer to read challenging books (See section 3.3.3).

### **5.6.2.2 Reading for recognition and grades**

From the emergent data, the researcher discovered that some of the participants engaged in leisure reading for personal enrichment and self-advancement. Most of the participants in the study reported that they engaged in reading for some form of personal enrichment or recognition from teachers, parents and peers. Even the fifty-fifty readers and non-readers appreciated the enriching aspect of leisure reading. The participants felt that their literacy and linguistic skills and cognitive skills all developed and improved as a result of engaging in positive and sustained leisure reading habits, whether on mobile or in physical books.

Grammar and vocabulary were isolated by participants as the two single most important language skills improved by reading. One reason which appeared in all three of the data sources for reading put forward by the participants was to improve their grammar and vocabulary.

*Reading improves my grammar and essay writing.* [Participant 20-MRJ-17/02/18]

*Children improve on vocabulary and learn unfamiliar words.* [Participant 18-FGD]

*I feel like you'll miss out on the important things that matter in the book you read to gain grammar, speech and wisdom.* [Participant 8-LPI]

*Reading really helps me with my vocabulary. Reading helps me get out of my comfort zone.* [Participant 21-MRJ-28/03/13]

Even non-readers were aware of and acknowledged this as an important reason why adolescent learners read for leisure as Participant 7, a non-reader, admitted: *"I do not really like reading but I think it is good for people as it improves your vocabulary"* [Participant 7-MRJ-09/02/2018]. Participant 1, another of the declared non-readers, also recognised his gains as improved grades.

**Researcher:** *Why do you read these short stories?*

**Participant 1:** *I think it improves my English...*

**Researcher:** *And anything else?*

**Participant 1:** *Yeah ever since I started reading short stories, I've noticed that I've improved in my English.*

**Interviewer:** *And how do you find these materials? These short stories.*

**Participant 1:** *I think they are quite good. Because... let... I'll just take it from this side that I was in a U grade last year, form 1 and then form two. Ah last year but one form 1 I was in a U grade and then form two I was in a C grade. I improved when I started reading the... those short stories.*

[Participant 1-LPI]

Gains in linguistic and literary abilities were tangible outcomes that the participants, their parents and teachers could easily recognise, acknowledge and reward or give praise for. The non-reader participants of this study are likely to engage in reading only if it has an instrumental value attached to it. A similar phenomenon is observed by McGeown, Duncan, Griffiths and Stothard (2015:25) in a study where they explored the relationship between the reading skills, reading motivation and reading habits of adolescents (See section 3.2.4 on reading and motivation).

The second reason why participants also read either physical books or on mobile for personal enrichment was to develop their cognitive skills and intellectual stamina. Such cognitive skills included critical thinking, deductive reasoning and problem-solving skills. Participant 20 read because he knew that reading is the gateway to knowledge and it improved his feeling of self-worth amongst his cohorts, *"I read because reading makes me more bright[er] and intelligent and reading is a better way of spending my leisure time"* [Participant 20-MRJ-17/02/18]. Participant 17 also affirmed these sentiments later in the focus group discussion when she asserted that she *"likes reading e-books because*

*they help me get knowledge and know a lot"* [Participant 17-FGD]. These findings relate to prior research on extrinsic reading motivation which found that learners read so that their peers and teachers will perceive them as smart (Khan et al. 2016:71) (see section 3.2.4 on reading and motivation).

There were, however, participants who expressed a different opinion to the view that mobile reading contributed to their intellectual development, as they felt mobile devices were merely a form of reading media with very little bearing on their intellectual and cognitive development. According to these participants, the intellectual development of adolescents is based on other factors as participant 20 pointed out: *"I do not think mobile devices make people smarter; it is just the effort which you put"* (Participant 20 - FDG). Furthermore, there were those participants who felt that mobile reading was only as good as the individual who engaged in it and could not, therefore, be solely responsible for the cognitive growth of the individual. One participant said: *"I feel mobile reading does not necessarily make people smarter because people have different levels of understanding. Some maybe faster learners and some are slower learners"* (Participant 5-FGD).

### **5.6.2.3 Reading out of Curiosity**

Another intellectually oriented factor for engaging in leisure reading cited by the group of participants who considered themselves as readers in this study was curiosity. Curiosity is a construct of intrinsic motivation that stems from a strong desire to find out, learn and know things (Wigfield et al 2012:56). According to a group of participants, they displayed a curiosity to engage in leisure reading texts to learn more and making better sense of the world around them. Participant 3 aptly captured this curiosity which kept her engaged to read when she explained in the interview:

*I like to read like you know novels that relate to the lives of teenagers. Like right now, my Dad bought me four novels based on the secret life of a teenage girl. It emphasises how teenagers struggle to find out who they truly are. And that some teenagers struggle to figure out the belief in God. Yeah, that's the one I'm reading now.*

[Participant 3-LPI]

Participant 3's curiosity seemed to arise from her struggles as an adolescent. Adolescents' leisure reading helps them to navigate and negotiate the often competing and conflicting roles they need to fulfil (Carnegie Corporation 2010:13). The adolescent participants in this study had to contend and struggle with multiple tensions in their lives and reading as Participant 3 pointed out was a viable coping mechanism as it helped them sort out these issues. The construct of curiosity while reading on mobile is also confirmed by Participant

8 in the focus group interview when she expressed her sentiments on her overall mobile reading experiences:

*It was indeed an unforgettable experience being part of the mobile reading squad, being able to choose a variety of books of my interest which kept me occupied because I was desperately curious to know what will happen next. [Participant 8- FDG]*

### **5.6.3 Mobile reading and the emotional development of a group of Zimbabwean adolescent learners**

The emotional response of the adolescent participants to mobile reading was perhaps the most profound reaction proffered by the participants of this study. Emotions are one of the greatest and most intricate attributes of being human and the ability to recognise, express, control and manage them is an integral part of how individuals interpret, interact and make sense of the social world around them (Globkar 2018:548). Emotional development in the mobile age is no longer linear, analogues nor sequential but rather has become non-linear, global, holistic and ambiguous. The participants of this study expressed a mixed bag of emotions as far as travelling their journey of becoming mobile readers.

While the majority of participants affirmed that they enjoyed engaging in mobile reading, a plethora of nuanced emotional responses was embedded within the data and could be gleaned. In the focus group interviews, the participants had the following to say about how they felt about mobile reading:

Table 5.7 outlines feedback from the participants when asked how they felt about mobile reading in the focus group interview.



**Table 5.7 Adolescent learners' emotional response to mobile reading**

<b>Participant</b>	<b>Participant response</b>
1	<i>I feel relaxed and cooled down and it mostly reduces my stress.</i>
4	<i>I feel engaged and excited</i>
7	<i>When I read on mobile, I feel secure because it will be my device rather than school books</i>
11	<i>When I read on my mobile, it is easy I just feel free.</i>
14	<i>I feel relaxed, anxious and keen to know what is going to happen.</i>
17	<i>I feel like I can learn a lot more because if there is a word I can't understand, I can simply open a dictionary on my phone. I can also read a variety of books</i>
20	<i>I feel more of my age and I feel like I am modern.</i>
3	<i>It feels ok but I'm not a fan of it</i>
6	<i>I understand better</i>
9	<i>I feel good about myself when I use my phone or tablet for reading books as I can lie on my bed and read comfortably. I feel like I'm using this tool for good.</i>
13	<i>When reading on my laptop or mobile phone, I feel free to do anything and that is when I understand better.</i>
16	<i>I feel relaxed and excited.</i>
19	<i>Well, I guess I feel more alive and energised when using my mobile device because sometimes I dose off when I am reading a textbook.</i>
23	<i>I always stay interested and I never get tired because I can change the lighting on my mobile device different from a book where you keep looking for good lighting until you get bored.</i>
2	<i>I feel as if more information has been provided for me as I can access the internet.</i>
5	<i>I feel mobile reading does not necessarily make people smarter because people have different levels of understanding. Some may be faster learners and some are slower learners.</i>
8	<i>I feel bored these days because my parents took my phone because I was up at 3am, which is likely to disadvantage my reading.</i>  <i>I feel like I had more to gain than lose because most of my time I was not on social platforms but I was reading.</i>
12	<i>I sometimes feel empty as the pleasure of reading seems to be sucked out of me but sometimes the feeling is just mutual and the book I am reading on the mobile has a unique flavour that I feel a true reader should know and have experienced.</i>
15	<i>I feel like I'm reading a normal book only on a gadget.</i>
18	<i>I feel like I grasp concepts faster since I will be seeing a lot of pictures and videos.</i>
21	<i>I feel happy because I feel smarter and understand better.</i>

It is apparent from the table above that there is a lot of emotional excitement amongst the adolescent learners as far as mobile reading is concerned. Mobile devices altered how the adolescent participants accessed their reading materials and resources. This ability to access knowledge instantaneously created a heightened sense of excitement among the participants of this study which resulted in a great deal of emotional excitement.

Adolescence is an intensely emotional period for the learners as it represents a stage of upheaval as far as their physical and emotional development is concerned. From the responses of the participants, mobile reading seemed to have a therapeutic and calming effect on their emotional development, as it seemed to be a place they escape to for relaxation, to relieve boredom, to quench their curiosity, for learning and simple excitement.

According to the views expressed by the participants of this study, they engaged in leisure reading to temporarily escape from reality. Two forms of escape emerged here. In the first instance, some adolescent participants engaged in leisure reading to escape and seek emotional refuge from the demands the physical world made on them. As such, the participants engaged in leisure reading to avoid doing household chores as illustrated in the data monologue by Participant 21 below:

*When your parents are there, you have all the freedom you need. No one tells you to clean up the house and do dishes, exactly like my mother does. To be honest, it is very frustrating to be called for cleaning chores when you are reading. It's a time of peace; you do not need any distractions.*  
[Participant 21-MRJ-01/03/18]

The need to simply be alone and the desire to be in an emotional space of his own, is also another form of escape that drew the participants towards books as Participant 10 testified in the literacy practices interview: *"I usually read in the evening or when my friends irritate me and I need some alone time"* [Participant 10-LPI].

The adolescent participants undertook spiritual journeys of escape whenever they read. These were journeys where they escaped through the words carved into the pages of the books they read to transpose themselves from the actual world into the fictitious world of books. Books took them to places as they read. And just for those few moments, they were someone else or somewhere else, sharing in the experiences and emotions of the characters expressed in the texts.

*I love a bit of mystery, total reality or rather circumstances where I end up feeling like the characters, for example, when they cry, I sob, when they shout I defend them too. So, it changes my mood, mostly I become happy, anxious to read and interested.* [Participant 18-MRJ-16/02/18]

The books the participants read, created a barrier between themselves and the real world, heightening their emotions. They seemed to shut their troubles away for a while and to settle into the serene world of books. This is a realm they enjoyed as they could easily escape to because it is non-judgemental, it does not exert pressure on them. It is not filled with the storm and stress, which is often typical of adolescence.

Mobile reading also provided a haven for the participants to retreat to as it evoked feelings of security when they practised reading on personalised mobile devices as opposed to shared reading resources. The participants also felt alive, energised and liberated through mobile reading. Participant 20's response aptly defines the co-relation that existed between the emotional development of the adolescent participants and mobile reading when she said: "*I feel more of my age and I feel like I am modern*" (Participant 20-FGD). For participant 20, it suited mobile reading to the interests of young people and seemed to be inevitable in an era that has suddenly become digital at an astonishingly rapid pace. In the face-to-face interviews, reading on mobile was ranked fourth below activities like WhatsApp messaging, listening to music and browsing the internet as some mobile phone activities that interested the participants.

While mobile reading evoked a positive emotional response amongst the majority of the participants in this study, some still felt a void and preferred to maintain the status quo. This sentiment was expressed somewhat cryptically by participant 12 who says:

*I sometimes feel empty as the pleasure of reading seems to be sucked out of me but sometimes the feeling is just mutual and the book I am reading on the mobile has a unique flavour that I feel a true reader should know and have experienced.* (Participant 12-FGD)

While mobile reading is a modern phenomenon, there were adolescent learners like participant 12 who felt obligated to read physical books. This does not, however, represent a lack of emotional maturity on their part but rather, this is a conformist response more than anything else.

#### **5.6.4 Mobile reading and the social development of a group of Zimbabwean adolescent learners**

Reading has been a social enterprise ever since the invention of the printing press and the first published novel. People have converged socially around books for ages forming book clubs and book exchanges all in a bid to share books and tales of books that would have made an impact on them. This study also investigated the social literacy practices of the adolescent participants and how these have been reconfigured to suit the nature and demands of mobile reading.

One dimension of extrinsic reading motivation that affected the reading engagement of a group of Zimbabwean adolescent learners was the social worth participants placed upon reading. The social worth of reading was exhibited through the participants' values and beliefs about reading and the various purposes for reading in social interactions.

Data from the literacy practices interviews clearly showed how people surrounding the adolescent reader played a pivotal and prominent role in their literacy practices before they were introduced to the mobile reading initiative. Parents, siblings, extended family members, friends and classmates all contributed to the adolescent readers' support and social network and promoted positive reading behaviour amongst the participants. This well organised reading social support system is evident in some participants' responses:

*Yes, my parents, siblings and acquaintances.* (Participant 16-LPI)

*I read at times with my friends.* (Participant 18- LPI)

*Yes, I do normally read novels with my siblings who are older than me and friends if I am at school.* (Participant 19- LPI)

*I sometimes read with my mother.* (Participant 20 – LPI)

The high incidence of connectivity of mobile devices and the establishment of book social networks and other reading support platforms facilitated the social development of the adolescent participants. The social reading network of the participants expanded as the learners suddenly became part of a global community of readers. The two mobile reading applications used in this study, the worldreader mobile reading application and wattpad boast of 7.6 million and 70 million worldwide readership respectively. These social reading platforms also allow access through other social media applications like twitter,

instagram and facebook where they can access pictures of new novels on instagram and book reviews on facebook or twitter. Participant 17 ideally captured the social significance mobile reading applications like wattpad have on the social reading lives of the adolescent participants of this study when she said; "*We don't share but one of them introduced me to wattpad which they are also interested in*" (Participant 17- FGD).

In the opinion of a group of participants, they indulged in reading to seek pleasure. Pleasure seeking continued to rank highest amongst humankind's' social endeavours in pursuit of happiness. The participants derived pleasure and delight from reading books. They read to enjoy themselves as illustrated by Participant 18, a true romantic at heart:

*I love reading when I am on my bed in a tree in the shade or just lying on the ground on the grass because it always puts me in a fantasy I begin to imagine it in front of me especially when the novel is descriptive when it is talking about the environment.*

[Participant 18-LPI]

Apart from enjoying themselves, the participants also read to live out their fantasies. The books they read carried them into dreamland, a world of make-believe, which only their imaginations could bring to life. Participant 16, in the literacy practices interviews and participant 12 in the focus group discussion, highlighted that they particularly enjoyed reading to stretch their creative imagination:

*Classics take me to a different world; they transform me and have a lot of benefits. They help the brain to imagine and have new ideas.* [Participant 16-LPI]

*I am the type of person who loves reading a physical book, one with no images so I can see how far my imagination can go.*

[Participant 12-FGD]

It is evident from the participants' views that their actions to read were driven by an intrinsic desire to seek delight and engage in pleasurable activities. They derived pleasure in learning, in fulfilling their dreams and living out their fantasies. The participants also reported indulging in reading as an extension of their other social engagements and entertainment activities. The participants said they were motivated or drawn to read a novel especially after they had watched the movie. For Participants 11 and 3, familiarity bred interest:

*I usually like reading books that I have watched the movie, for example, Alice in wonderland.*

[Participants 11-FGD]

*I most like reading a novel after watching the movie if there is one.*  
[Participant 3-LPI]

The novel is the source material to the movie and more often provides a much more comprehensive narrative compared to the film version of the account. While the film version of the novel affords the participants a strong sense of realism as they create a strong mental and concrete image of the story, reading the novel allows them to go deeper into the book's universe and form stronger connections with the characters and events.

### **5.6.5 Mobile reading and the spiritual and personal development of a group of adolescent learners**

The extensive and expansive nature represented by the reading applications used in this study also meant the participants got exposed to content that could either positively or negatively impact their moral and spiritual development. The participants were mindful and conscious of this possibility. As a result, some of the participants developed a mental coping mechanism that saw them engaging in self-monitoring, self-checking and self-filtering practices to safeguard themselves as they read on the platform. A typical case in point of self-regulation is explained by participant 7 in the Focus Group discussion when he said: "*I also encourage you to use Wattpad with caution because there are some books which are not of your age, choose the right books which are of your age*" [Participant 7-FGD]. While the participants enjoyed consuming content on the reading platforms used in this study, they showed a strong desire to read literature that developed and enriched them from a moralistic point of view.

The participants of this study also engaged in mobile reading for their personal growth and development. The adolescent readers engaged with content found on mobile reading applications, which they felt could inspire them and add value to them. Participant 18 particularly found mobile reading useful as it contributed to their personal leadership development. They felt that mobile reading also developed their feeling of self-worth and self-confidence when they said:

*I read motivational books and biographies of successful people. This is because when I read their life stories of what the people had to adjust to becoming the great amazing people they are today; it just gets into my head, then, I have the motive to become an amazing person by becoming a better version of myself and taking steps to be successful.*  
[Participant 18-LPI]

The participants in this study also drew instruction and moralistic teachings from the materials they read. Through their responses, the participants displayed an awareness that through reading they gained moralistic teachings which helped improve and build their moral character and self-esteem.

*Teen library books help me boost my confidence when outdoors; these books have moral teachings behind them.* [Participant 17-MRJ-06/03/18.]

For some of the participants, what they read helped them to be grounded and act within a framework of a morally acceptable standard of values and beliefs as is expected of them by family and society. It is clear from the data clip below that the father of Participant 3 bought her books with the primary aim being to instruct more than anything else:

*I like to read like you know novels that relate to the lives of teenagers. Like right now, my dad bought me four novels based on the secret life of a teenage girl. It emphasises how teenagers struggle to find out who they truly are. And that some teenagers actually struggle to figure out the belief in God. Yeah, that's the one I'm reading now.*  
[Participant 3-LPI]

The greatest source of moral inspiration for the adolescent participants in this study was derived from religious texts like the Bible. Some of the participants read the Bible every day although they could not pinpoint the reason why they claimed to enjoy reading the Bible.

*The book I favour the most and read almost every day although I read about less than fifty lines except on Sundays is my Bible. It helps me in different ways and I enjoy reading it.* [Participant 14-MRJ-24/03/18]

These didactic readings are significant as they provide adolescent learners with a moral compass that guides and governs their behaviour in an often morally bankrupt world. It was observed that the young adolescent learners engaged in mobile reading because they felt that the mobile reading applications provided a digital ecology or environmental context that aligned with their developmental interests. Mobile reading was acceptable amongst the participants largely because of the peer group influence. The diverse range of teenage-focused reading content found on the mobile reading platforms intrigued the participants. Furthermore, the teenage specific genres found on the platforms included teenage adventure, teenage fiction, science fiction, teenage romance and teenage werewolf or vampire stories, all of which enriched the reading experiences and lives of the young people.

The foregoing discourse critically examined the reading engagement of the adolescent participants as they read on mobile phones. It is clear from the foregoing discussion that mobile devices are influencing the development of the whole adolescent personality as far as reading is concerned. The data in the above section, which was evaluated through the theoretical lens of the Reader Engagement Model (Wigfield & Guthrie 2000) and the Connected Reader Model (Turner & Hick 2015), provided detailed insight into the third research question of the study. The third research question of the study probed the various ways MRDs could be used to change the reading habits of a group of adolescent learners in Zimbabwe (see section 1.6.2). The emerging scenario showed the participants being more engaged in reading as mobile reading fulfilled their intellectual, emotional, social and spiritual developmental needs. Mobile reading was gradually becoming a part of the participants' reading lives.

### **5.7 Theme 3 Technological contexts shaping the mobile reading habits of a group of Zimbabwean adolescent learners**

According to Bronfenbrenner's bioecological systems theory, environmental systems and contextual influences are seen as playing a prominent role in shaping the development of the becoming individual. In this section, the researcher analysed the different ways in which the technological contexts created by MRDs helped to cultivate the digital reading habits of the adolescent participants of this study (see section 3.9 on the possibilities and problems of reading using mobile devices). Under this theme, the researcher discussed the participant's responses to the technological factors which promoted a mobile reading culture, barriers to mobile reading and reading preferences.

#### **5.7.1 Factors which promoted a mobile reading culture**

The study found some factors that motivated the participants to engage in mobile reading. Motivation also proved to be a key ingredient or influence in the participants' ecological contexts, which promoted the development of vibrant reading culture on mobile.

The researcher's evaluation of the factors promoting mobile reading engagement was also guided by the Connected Reader Model by Turner and Hick (2015). In short, the model is premised on the notion that digital reading has three fundamental practices which are encountering, engaging and evaluating (3Es). The rationale for this was to facilitate a rigorous analysis and leave no stone unturned in the quest to find meaning in the pre-mobile and mobile literacy practices of the participants in this study. The factors examined



under this theme include easy access to reading materials, portability and ubiquity of mobile devices, mobile book features and affordability.

#### **5.7.1.1 Ease of Access**

The greatest sentiment shared by the participants who enjoyed reading on mobile is the view that mobile books are easy to access. The participants felt that their mobile devices made it very easy for them to encounter digital reading material. They reported that they could easily download mobile books from the internet, share books with friends and download reading applications with thousands of book varieties from around the world. In the task-based focus group letter to a friend, Participant 2 shared this sentiment with his friend, "*You can download e-books from certain websites or read them online*" [Participant 2-FGD]. Other participants enjoyed the expediency afforded by mobile books as they no longer needed to spend time going to the school library or local library to borrow books to read. They enjoyed the convenience of encountering digital reading content through simply searching for the book they wanted to read in the comfort of their present location as Participant 23 asserts in her mobile reading journal: "*I rather read e-books because they are more interesting for me; I don't have to look for a book but I can just search for the book I want to read*" [Participant 23-MRJ-22/02/18]. Participant 17 also affirmed this sentiment through his contribution in the focus group interview when he pointed out that "*I have many sources of getting a chance for reading e-books because you can get to search and not buy books*" [Participant 17-FGD].

The participants also enjoyed the convenience of autonomy and independence afforded by mobile devices when reading mobile books. The two mobile reading applications used by the participants in this study were Wattpad and Worldreader and this mobile application allowed the participants access to virtual libraries in the palm of their hands. Virtual libraries did not place restrictions on the reading times or length of time a learner should have access to a book like traditional libraries do. This unlimited freedom enhanced the participants' mobile reading experiences they had to create and curate their reading collections from the different genres available to them on the mobile reading applications. Participant 19 highlights this sentiment in one of her mobile reading diary entries as follows:

*I have a little library of mine where it has all my books and other pieces of articles that one may be interested in reading. My little library of mine is on my tablet.* [Participant 19-MRJ-12/03/18]

The access to a wide range of reading genres gave the participants the liberty to create reading collections that best suited their reading tastes and preferences. Furthermore, these personal reading collections ensured that the adolescent learner did not experience prolonged dry spells without access to reading material. Accordingly, UNESCO (2014:39) identifies access as a very important factor in promoting mobile reading amongst individuals who would not normally have access to physical books or other hard copy reading materials.

### **5.7.1.2 Portability and ubiquity**

The participants who liked reading mobile books did so because they felt that they could engage with the books at anytime and anywhere. The participants seemed to enjoy mobile reading because their mobile reading devices were ever-present (ubiquity): *"E-books are easy to carry around for you can have them on your tablet everywhere you go"* [Participant 14-FGD] and that they could conveniently carry multiple books around on a single device (portability): *"I like reading e-books because they are easy to move around with"* [Participant 19-FGD]. In line with these findings, UNESCO (2014:37) describes the convenience of portability as one of the primary reasons why people engage in mobile reading. Ubiquity and portability are, therefore, very powerful drivers of mobile reading.

### **5.7.1.3 Multimedia interactive book features**

The participants highlighted that another reason why they enjoyed reading on mobile devices was that mobile books have multimedia features. Digital books are endowed with multimedia content that is presented in an appealing way to the multiple senses of the reader when compared to reading physical books. They have content in text format which is often accompanied with lifelike moving animations, visual illustrations, embedded dictionaries and voice narration all of which make reading more captivating and interesting for the reader (Kim, 2014 cited in Campia 2014:21) (See section 3.6.2 for a discussion on the desirability and acceptability of mobile reading devices) Participant 20 was captivated by these interactive features as can be seen from his diary: *"I love to read on my mobile because it makes me understand more because of the illustrations it shows"* [Participant 20-MRJ-27/03/18]. These multimedia book features enticed the participants to read more than asserted in the following focus group extract from Participant 14, who

said: *"I would prefer reading on a mobile phone. The story is more interesting and gives more details. When there is a scenario, a picture is provided so you can feel you are there"* [Participant 14-FGD].

Some mobile books have an audio voice narration format. Participant 16, a confessed non-reader in the literacy practices interview, eventually asserted his preference for mobile books in his mobile reading diary when he attested to the availability of audio books on mobile devices. *"I do not consider myself a reader...I like reading e-books because the kindle reads the book for you"* [Participant 16 -FGD]. Generally speaking, non-readers are lazy for page-turning and they would rather have someone do the page-turning or do the reading for them. Participant 10 alluded to the same fact that audio books made reading easier and more interesting when he wrote in his diary *"When I am at home I read mobile books on my kindle and sometimes use audible because with audible it can read the book to you and you won't have to swipe to change"* [Participant 10-MRJ-26/02/18]. It is evident from the foregoing that mobile devices are changing the reading habits of a group of adolescent learners in Zimbabwe.

Mobile books are also embedded with other interactive features or seductive hotspots that promote involvement and engagement when reading digital texts (Ciampa 2014:19). The participants acknowledged that these interactive and seductive hotspots like embedded dictionaries enabled them to navigate and interact with passages of varying degrees of difficulty. Participant 18 confirmed this when she described her preference for reading mobile books: *"I usually have an installed dictionary that allows me to search words in the passage"* [Participant 18-MRJ-19/03/18]. The seductive grip and awe factor these interactive features have on the participants is aptly summed up by Participant 17, who wrote in his mobile reading journal:

*It is just fascinating to read whatever appears on the screen. I can even spend the whole day on-screen reading about young love. I do not care about my surroundings or what to eat at all.*

[Participant 17-MRJ-25/02/18]

Hazaea and Alzubi (2016:8) confirm the utility of these enhanced mobile book features like online and offline dictionaries, which they found to aid literacy practices like code-breaking, text participation and text analysis (see section 3.6.2). In short, the additional

resources that accompany mobile books seemed to be very useful in improving the engagement levels of the readers.

#### **5.7.1.4 Affordability**

Another reason for the rising prominence of mobile books, particularly in developing countries like Zimbabwe is that they are very affordable as compared to physical books. UNESCO (2014:14) is on record that e-books cost as little as US\$0.02. Participant 8 realised this and reinforced this fact by admitting that cost is a determinant to their reading engagement; *"I prefer reading e-books for they are not expensive"* [Participant 8-MRJ]. The applications used in this study were free and gave participants access to over one hundred thousand books from all over the world. The researcher could also read for free a short story collection they had seen in a bookshop going for US\$14.00 [RFN]. The Worldreader application is also called 'free books' and can be downloaded free from any application store and installed on a smartphone in a matter of minutes. The direct cost of mobile books has more or less disappeared thanks to innovations like mobile book applications. From both the participants' and researcher's experiences, it is evident that the affordability of mobile books is a critical factor in promoting the development of the mobile reading habits of a group of adolescent learners in Zimbabwe.

#### **5.7.2 Barriers to mobile reading**

Not all the mobile reading actions of the participants proceeded smoothly or flawlessly without incidents. The obstacles the participants encountered as they engaged in mobile reading also contributed to the technological contexts that shaped the mobile reading habits of the adolescent learners. The participants reported encountering several obstacles during their mobile reading efforts which probably resulted in frustration and disengagement. These barriers to mobile reading occurred at all contextual levels of the bioecological model. The obstacles ranged from personal or individual challenges within the microsystem that impeded the participants from engaging in mobile reading to global challenges in the macrosystem which also hampered the participants from developing a vibrant mobile reading culture. Some barriers to mobile reading which appeared from the data included high data or internet costs and technical issues relating to the devices. These obstacles can be viewed as hindrances that militated against engagement during mobile reading.

### **5.7.2.1 Cost of mobile device usage**

The greatest obstacle which militated against the mobile reading efforts of the group of adolescent learners was the prohibitive cost of data in Zimbabwe. All the participants in this study were dependents who relied on their parents for economic sustenance. They also relied on their parents to buy internet bundles for them to gain access to the internet. Participant 8 fittingly summed up the impact data costs had on their mobile reading experiences during the focus group interview: *"No data meant no reading. The collection I loved the most which was that of young adults"* [Participant 8-FGD]. This remark succinctly summarises the experiences of Participant 8 when it posits that the burden of the cost of mobile device usage determines to a great extent how people use technology for educational purposes. At the start of the mobile reading initiative of this particular study, the researcher had to ensure that all twenty-three of the participants had sufficient data bundles to download, install and access books from the reading applications [RFN].

### **5.7.2.2 Short battery life**

The participants reported that they faced many technical challenges relating to their mobile devices which impeded their mobile reading experiences. The first issue raised by the adolescent learners was the limited battery life of their smartphones and tablets. Both groups of participants, that is, those who preferred to read on mobile and those who preferred to read physical books, cited the possibility of the mobile device battery dying during and interrupting a reading session as a downside for mobile reading. For instance, Participant 18 after highlighting how much she enjoyed mobile reading, immediately went on to comment on this negative aspect garnered through her reading experiences. Participant 18 reported in her mobile reading diary: *"The only problem is I have to charge my phone, unlike a physical novel that is forever ready to read"* [Participant 18-MRJ-15/02/2018]. Participant 12 opined that a physical book reader keeps away from mobile books because of this same reason. Participant 12 said the following in the focus group interview *"I like reading physical books more because you do not need electricity to generate them; I generally don't like e-books because it is a disadvantage because they need electricity"* [Participant 12-FGD].

### **5.7.2.3 Small screen size**

Some participants still preferred reading hard copy books as they did not feel comfortable reading on mobile due to the small screen size. Most mobile devices range from having a screen size as small as 4.5 inches to larger screen sizes of 17 inches. As a result of the

small screen size of mobile devices, mobile books have to be resized to fit the screen, often, making the words very difficult to read as alluded to by Participant 12 in the focus group interview, *"I love reading physical books because it is much harder to see the words on a smartphone"* [Participant 12-FGD].

#### **5.7.2.4 Device breakage**

The last obstacle to mobile reading observed by the researcher is the breakage of devices. This problem was not widespread as only one participant reported having dropped and broken his mobile phone, which also doubled up as his reading device. Participant 2, an avid sport reader had this to say about device breakage, *"I have not been reading because I dropped my phone and its screen cracked; I have asked my parents to buy me a new one"* [Participant 2-RFN]. The low incidence of device breakage can be attributed to the benefits of the Bring Your Own Device (BYOD) model adopted for the study. This finding is in stark contrast to the findings of Worldreader (2012:44) who used the shared device model amongst early grade learners in Ghana and noted an uncharacteristically higher device breakage rate than anticipated. The reason for this difference can mostly be drawn from the amount of personalised and individualised care the participants of this study give to their mobile devices. They were also older and more responsible than the early grade learners in Ghana.

Sections 5.8 to sections 5.9 cast the fourth research question of the study under the spotlight. This research question focused on evaluating the impact MRDs had in influencing the attitudes and perceptions of the group of Zimbabwean adolescent learners towards reading for self-enrichment. It is evident from the foregoing discussion that digital reading culture is slowly taking root amongst Zimbabwean adolescent learners. While the data showed that mobile devices provided the participants many opportunities to develop their literacy and establish a digital reading culture, it was also apparent that the road to becoming mobile readers was fraught with many obstacles as well.

#### **5.7.3 Reading preference**

Depending on the influence of either the factors promoting or barriers obstructing mobile reading, the participants explained their reading preferences in several ways. Reading preference also served as an indicator of reading engagement and intrinsic motivation, as it implied that readers were in total control when they exercised their right and freedom of choice as far as the act of reading and reading activities were concerned (Guthrie & Wigfield 2007:294; McGeown 2013:3) (See section 3.2.3 Engagement model of reading).

The pre-mobile and mobile reading preferences that motivated the participants to engage in leisure reading were many and varied. Guthrie and Wigfield (2007:294) advance nine attributes that intrinsically motivate young readers to engage in reading when they perceive they are in control of their reading choices (See section 3.2.3). These choices include independence when choosing own book titles or series to read and valuing to choose to read ahead of other activities.

Firstly, the participants' right to choose was expressed through the texts and genres they preferred and chose to read. The participants preferred to read texts and genres that are easy and accessible for them to read regardless of grade level. For instance, comics were a favourite reading genre amongst some of the male and female participants in this study. Participant 14 explained why and how comics as his preferred genre kept him engaged; *"I like reading books based on cartoons with images in colour with less than thirty pages"* [Participant 14-MRJ-14/03/18]. For Participant 17, her preferred genre also affirmed her reading engagement levels like the amount of dedication and frequency: *"I often read a comic per two days because I'm not really as fast as a flash for reading"* [Participant 17-LPI]. These findings strengthen other studies, which found that intrinsic motivation starts reading frequency, dedication and comprehension (Guthrie & McRae 2012:227; Schaffner & Schiefele 2016:934) (See section 3.3.3 on the reading engagement model).

Second, the participants who identified themselves as readers also exercised their freedom of choice when they said that they preferred reading ahead of activities like watching television, listening to music and playing with friends. According to the responses of the participants, reading is more intellectually engaging and thought-provoking than watching television. Participants 15 and 19 explained how they engaged in reading because they found it more rewarding and satisfying than other activities:

*Reading is better than watching television because when you are reading, you have time to think about the story and imagine what is happening in your head.* [Participant 15-LPI]

*I love reading novels like Dark Diaries and Diaries of a Wimpy Kid. Those novels make me feel like there is more out in the world than sitting on a couch eating broccoli and watching the regular show.* [Participant 19-FGD]

The entertainment value of books and reading was also very much evident in the participants' preference to read compared to watching television. Non-readers like Participant 6, on the other hand, found reading unattractive and less intrinsically motivating. She preferred to use her leisure time on activities research has found that to be more intrinsically motivating than reading (Schaffner & Schiefele 2016:922).

The data from the mobile reading initiative also revealed that mobile reading expanded the adolescent learners' reading preferences by introducing a new reading media. This increased the participants' choices and freedom as aptly captured and elaborated in the reading narratives of the participants. This preference for the new media displayed by the adolescent participants is elaborated in sections 5.7.4.1 to 5.7.5.

#### **5.7.4 Preferred medium for reading**

The participants articulated mixed feelings concerning their preferred medium for reading. Once they were exposed to the mobile reading initiative, the participants expressed three original positions with regards to their preferred reading media. One group said they preferred reading physical or hard copy books only. Another group preferred a combination of both mobile books and physical books and a third group said they prefer reading mobile books only.

##### **5.7.4.1 Preference to reading physical books**

A cohort of participants who preferred reading physical books or hard copy books only did so because they felt more comfortable being steeped in tradition. This is the more conservative type of reader, who loves reading, simply because physical books exist materially and the physical action of flipping through the pages of the book defines the whole reading experience. Participant 12, the epitome of the traditional reader, who prefers reading physical books, reflected in her mobile reading journal:

*I've never liked using a mobile phone to read a book because I don't understand it. I feel like a person needs to read a book of physical existence although it is the old-fashioned way.*  
12-MRJ-28/03/18

[Participant

Physical books satisfy this participant's reading needs, hence the choice of reading media. Participant 12 and other participants who fall into this category are described by Zhang and Kudva (2014:2) as slow adopters who are reluctant to adopt mobile books because they are still an innovation which they do not understand but is gradually gaining



popularity and is yet to reach its peak (see section 3.8.2 for a discussion on the challenges associated with mobile reading).

The participants also claimed that they preferred reading physical books because they were free from distractions, unlike mobile books which have many distractions as Participant 11 highlighted: *"I preferably enjoy reading physical books, because usually when reading from a mobile phone one is easily distracted"* [Participant 11-FGD]. As they read on mobiles, the participants felt that their concentration on the reading texts was affected by other mobile phone functions like message alerts and notifications. Once message notifications hit their phone, they became curious and were tempted to read them. Once this happened, focus on reading was lost as they ended up engaging and becoming fully engrossed in messaging and abandoning reading. Worldreader (2012:33) also discovered that reading concentration on mobile devices like e-readers is easily broken because learners are overwhelmed by the sheer volume of information available to them on the devices.

Some of the participants ended up preferring to read physical books as emphasised in the diary entry of participant 3 who admitted:

*I don't like using my mobile phone to read; I see it as a distraction actually because on phones, you have all these social media and WhatsApp and always there is [a] notification. So, I prefer reading natural material books.*  
[Participant 3-MRJ-18/02/18]

Participant 3 advanced the preference for *natural material books*, an observation also made by Baron (2013:2) and Merga (2014:4) that even though teenagers in the USA and Australia respectively had ready and easy access to e-books, they still preferred to read the printed book. It is clear from the participants' responses that they preferred reading from physical books as it is natural while mobile reading is unnatural because concentration is often broken by other resident applications on the mobile reading devices. Physical books will continue to dominate and characterise the reading habits of adolescent learners for a long time because mobile books are only gradually finding their way into the reading lives of the participants.

#### **5.7.4.2 Reading both physical and mobile books**

The second group of participants in the study felt absolutely at home reading both physical and mobile books. Their preferences in reading media are determined by different

variables such as the contextual situation the readers found themselves in and the natural disposition of the reader any time.

The participants pointed out that their preferred reading media is determined by the context and situation. All the participants in this category said they read physical books when they were at school:

*The books I normally read are physical and from my smartphone. I usually find more interest in physical books I read because I can be able to carry them to school* [Participant 13-MRJ-07/03/18].

It is also evident from the participants' responses that the school is the realm of physical books as explained by one participant: *"I usually read [on] physical books and on my phone. When I read [on] physical books, I will be reading from a book I would have borrowed at the school library"* [Participant 20-FGD]. The school rules which prohibited the use of mobile phones at school greatly influenced the preferred reading media of the adolescent participants. Hence, learners preferred to carry and read physical books at school to adhere to the school rules. Even though the researcher had been granted a concession by the school principal to allow learners to bring their mobile devices to school every Friday for the mobile reading sessions, the researcher observed that some of the participants often forgot to bring their devices [RFN]. This verdict is also in tandem with the findings of the National Literacy Trust (2014:4) which noted that 69% of British teenagers are likely to read digital texts on a tablet or mobile phone outside school.

The choice of the readers' preferred reading medium was also determined by the readers' circumstances and purpose for reading at a point in time. According to Participant 18, she preferred reading physical books when she wanted to engage in an intimate reading of a book or novel:

*I like reading both physical books and on my phone because with physical books I can jump back on chapters comparing characters, investigating why certain things are happening relating to a person's past.* [Participant 18-MRJ-13/03/18]

Participant 18 said she preferred to engage in mobile reading when she desired to read multiple texts at one go. She found it easy to switch from one text to the other as she read: *"On my smartphone, it is easier because I can read five books at once"* [Participant 18-MRJ-13/03/18].

#### **5.7.4.3 Reading on mobile phones**

The last group of participants is those who preferred to read exclusively on mobile. Participant 15 said: *"I mostly do e-books for reading since that is where most of my favourite novels are found"* [Participant 15-FDG]. These participants preferred to read mobile books for many reasons. These reasons included affordability of mobile books, ease of access to a wide range of reading genres, multimedia capabilities of mobile books and the portability and ubiquity of mobile books (see section 5.7.1).

#### **5.7.5 Preferred mobile reading application**

The freedom of choice during mobile reading also extended as far as expressing a preference for choice of mobile reading applications. In line with the third fundamental of the connected reader model, the participants engaged in mobile reading through exercising their right to evaluate digital reading resources (Turner & Hick 2015b:43) (See section 3.3.2 on the connected reader model). Evaluation entailed among other things judging the value of the digital resources the readers had at their disposal. In this study, the participants were able to evaluate whole applications, genres and individual texts with which they could engage. The criteria used to evaluate a reading application by participants of this study were based on the type of reading genre. The value proposition of the two most popular applications used in this study, that is, Wattpad and the Worldreader free books application, was aptly stated by Participant 23 who asserted in her mobile reading diary:

*I use an application called free books on my tablet to read a wide range of books. This app lets me read books by [a]claimed and well-known authors like Charles Dickens Unlike my friends, I do not read Wattpad books because the books do not give me a sense of nostalgia.*

[Participant 23-MRJ-25/03/18]

The participants also could evaluate and discriminate between these mobile reading platforms and the reading gains associated with some of the digital texts they encountered on these platforms. A participant said: *"I sometimes read on my mobile phone books from WhatsApp but I don't like them because they are mostly full of love stories which don't teach me vocabulary"* [Participant 12-FGD]. The ability to discriminate junk from valuable information is an important digital skill learners should develop and possess because the digital world is full of both useful and useless information.

Most participants, however, preferred reading on the fan fiction reading application Wattpad because it carried their favourite genre which is teenage-fiction or teenage

adventure. In the interviews, a participant mentioned: "*I normally love reading mobile books; these I read are found on an app called Wattpad*" [Participant 4-LPI]. The most popular titles which feature prominently on the reading list on Wattpad are highlighted by Participant 19 in her mobile reading diary; "*I love reading novels like 'Dark Diaries' and 'Diaries of a Wimpy Kid'*" [Participant 19-MRJ-21/02/18]. These two titles became popular amongst the group because of book share activities the researcher had with the participants during the weekly mobile reading sessions. The researcher observed that the peer group influence became very instrumental in the study as even the participants who were holding back about their reading habits, attempted to read these titles on mobile [RFN 9/3/18]. The ability to evaluate the digital resources at their disposal shows that the adolescent learners are active readers.

The three fundamental principles of the connected reading model which are encountering, engaging and evaluating (known as the 3Es) provide an important framework in analysing the mobile reading habits of a group of Zimbabwean adolescent learners (See section 3.3.2 for a discussion on the connected reading model). However mobile reading as expressed by the participants' experiences is non-linear as implied by the 3Es of the connected reading model. It seems to be rather complex and multi-dimensional as several factors come into play during mobile reading.

#### **5.8 Theme 4: Becoming mobile readers - a group of Zimbabwean adolescent learners reads on their terms to develop a mobile reading culture**

One of the key objectives of this study was to assess the impact mobile reading devices (MRDs) had on the attitudes and perceptions of adolescent learners in Zimbabwe towards reading for self-enrichment. This thematic section through the data collected retraces the mobile reading journeys undertaken by the adolescent participants to evaluate the extent to which they had or had not become mobile readers.

In the literacy practices interviews before the mobile reading programme, the participants were asked how often they used their mobile devices for reading. The participants' mobile reading practices before the onset of the mobile reading initiative are aptly captured in the following group of responses from the literacy practices interviews.

*Not that much because I'm not that interested in using my mobile.*  
(Participant 1-LPI)

*I do not see it as a distraction... I see it as a distraction actually because on phones you have all these social media and WhatsApp and always there are notifications so I prefer reading the natural material books.*  
(Participant 3-LPI)

*I seldom do, I usually use my mobile phone for taking pictures, WhatsApp messaging and Instagram.* (Participant 13- LPI)

*Rarely, I'm comfortable reading on paper.* (Participant 22- LPI)

This first batch of responses represents the opinions of those participants who did not engage in mobile reading at all before the mobile reading programme. Their reasons for non-engagement in mobile reading ranged from not knowing about mobile reading, preferring to read on paper, seeing mobile reading as a distraction to being preoccupied with other mobile device functions.

The second set of responses represents the experiences of that group of participants who engaged in mobile reading at regular but fixed intervals and those that read on mobile at irregular and unfixed intervals. This group also included conditional users, which were those participants who would engage in mobile reading because some pre-condition had to be satisfied;

*I don't use it all the time... about fifteen minutes. I only use it once when I'm at home after school. I use it on Saturdays and Sundays.*  
(Participant 6-LPI)

*Once after like two days.* (Participant 9- LPI)

*Usually, only on holidays.* (Participant 15- LPI)

*A lot during my spare time.* (Participant 16- LPI)

*I will only use my phone to read if I have an installed reading app on my phone.* (Participant 19- LPI)

These readers displayed an awareness of mobile reading and mobile reading applications but they had not developed a consistent and sustained habit for using their mobile devices as a reading medium.

The last group of responses signified the views of those participants who declared that they engaged in mobile reading all the time even before the introduction of the mobile reading intervention.

*All the time, before I go to bed and sometimes during the day.* (Participant 21-LPI)

*Very often actually I have about five textbooks.* (Participant 10-LPI)

*I use my mobile phone to read almost every day, every time I get a chance.* (Participant 11-LPI)

These participants already identified themselves as mobile readers and they were not oblivious of the process. The mobile reading intervention, therefore, complimented an activity they were already engaged in, albeit in a programmed and systematic manner.

At the end of the mobile reading programme, the same question was asked to the participants in the focus group interview. The questions were rephrased and asked if they thought mobile reading had changed the way they read in terms of reading habits, interest in reading and time spent reading. The second question asked the participants to consider if they had changed into mobile readers. Just like the literacy practices interviews before, three categories of responses emerged. The first category included those participants who did not feel that mobile reading had changed them in any way at all. This group was followed by those who were unsure, expressed mixed feelings about mobile reading, identified as both mobile and physical book readers and those who felt they were still transitioning from one identity to the other. Lastly, the third crew was made up of those who affirmed that they had become mobile readers.

The first group of participants responded non-affirmatively saying that they had not become mobile readers and that the mobile reading intervention had not altered the way they read or perceived reading for leisure as participant 12 pointed out when she said: "*Mobile reading hasn't changed my reading habits or interest in reading*" (Participant 12-FGD). In some cases, the response to these questions was a blatant "*No*" as expressed by participant 4 when she said; "*No, [because] I have always loved reading*" (Participant 4-FGD). It is clear from the sentiments expressed by the two participants that their self-conception as readers is far stronger than any reading innovation put in front of them, hence their 'immunity' towards mobile reading. The participants' identity as readers had already been well developed and entrenched so much that it could not be easily altered. No amount of extrinsic stimuli could motivate them to read as they already possess the inner driver to read on their own.

Another class of participants who seemed not to become a mobile reader were those participants who already viewed themselves as non-readers as shown by participant 6 when he said: "*No. I have never loved reading*" (Participant 6-FGD). Once again, these individuals were unmoved or unfazed by the mobile reading intervention and decided not to engage true to the English adage which says 'old habits die hard.' This group of participants was sure of their reader identity and declared that they had not in any way made or were transitioning to become mobile readers. Last, there were those participants who simply saw mobile reading as a nuisance because of the distractions and disruptions it caused while reading. As a result, they had not become mobile readers. This is the position taken by participant 15 who said: "*No because there are far more hindrances, therefore, I fall back to physical*" (Participant 15- FGD).

The second category of participants was the 'fifty-fifty' type of mobile reader and they were those who were still at the reading crossroads and yet had to decide to identify as mobile readers or not. A hint of hesitation characterised these participants' responses as they expressed uncertainty as to where they stood regarding them becoming mobile readers:

*I would say that [changing into a mobile reader] but I'm not so sure because I balance between physical and mobile reading. But at home, I'm more of a mobile reader and at school a physical reader.*

(Participant 14-FGD)

*I think it's both ways; I still read physical books but I also read mobile books when I can.*

(Participant 9- FGD)

*Not exactly permanently but I still retain myself and pick up and read two or three physical books.*

(Participant 23-FGD)

It is evident from the above responses that the participants were still much torn between physical reading and mobile reading. The participants still engaged in physical book reading while they also tried out mobile reading. However, they were yet to fully assert if they had become mobile readers.

The last cohort of participants in this category defined themselves as mobile readers, and they affirmed that they had become mobile readers and that mobile reading had changed the way they read. According to these participants, they read longer, understood more, became confident, talked about what they read more and found reading on the go more

convenient and ideally suited to their increasingly mobile lives. These participants had aligned mobile reading to their interests and acknowledged the change in their reading habits, as Participant 2 did in the focus group interview:

*Yes, it has because I prefer to read using a gadget than reading a big and heavy textbook. It has encouraged me to read more as it provides many other resources on the internet. My reading behaviour changed because I became confident about how I would talk about the history of footballers with my friends. (Participant 2 – FGD)*

As the world becomes increasingly digital, the mobile phone has become the new space to be transcended and Zimbabwean adolescent learners proved to be no exception as they spent most of their leisure time on mobile. Hence their reading habits and reader identities are fast becoming virtual identities as expressed by participant 19 who said in the focus group discussion: *"I love my cell phone a lot and I think I spend more time reading. So yes, I am changing the way I read"* (Participant 19-FGD).

The theme of becoming mobile readers represented the climax of the adolescent learner's mobile reading narratives. The journey to becoming a mobile reader was not a linear one as it involved making several complex decisions amongst them reading media choices and reading application choices. The findings in this section illuminated the main research question of the study, whose agenda was to interrogate the extent to which a group of Zimbabwean adolescent learners was prepared to use their mobile devices like phones and tablets to read for leisure ahead of other pleasurable functions offered by their mobile devices (see section 1.6.1).

Through the analysis of data gathered through literary practice interviews, mobile reading diaries, focus group interviews and the researcher's field notes, the researcher could glean a picture where the participants transitioned between being non-mobile readers, occasional mobile readers to habitual mobile readers. The succeeding sections will continue to build on this theme and address the research question as the nuts and bolts of the adolescent participants' journey of becoming mobile readers continued to unfold.

### **5.8.1 A group of adolescent learners developing their own reading culture in the mobile reading era**

One thing this study sought to do was to define the influence mobile technological devices had on the reading culture of a group of Zimbabwean adolescent learners (see section 1.7.1 which spells out the primary aim of the research). Furthermore, the goal of the study was



to investigate how the pervasive influence of the mobile device on the lives of adolescents shaped, redefined and reconfigured how the youth read in the twenty-first century.

The mobile reading macrosystem for this study can best be described as the societal reading culture in which the adolescent participants lived. The influences within the adolescent participants' mobile reading macrosystem which helped shape the participants' mobile reading ideologies and their reading beliefs encompassed aspects such as national reading policies and access to the internet.

Culturally, Zimbabwe has a rich literacy development tradition that dates back to the country's post-independence educational policy thrust of democratising education. The country also has a rich literary heritage, which stretches as far back as the 1960s (see section 1.3.1 on Zimbabwe's reading culture). Immersed within such a wealthy literacy and literary context, the participants exercised their free will and choice to chart their own mobile reading culture. The greatest obstacle to adolescent mobile reading development was the prohibitive data costs which restricted the adolescent learners' access to the internet and in turn access to reading resources and materials. This greatly militated against the participants' efforts to develop a truly robust mobile reading culture. Nevertheless, the participants took advantage of the autonomy and opportunities present by mobile reading devices to develop a mobile reading culture they felt they truly owned.

### **5.8.2 A group of adolescent learners reads on their terms**

One of the sentiments which came from the participants concerning the influence of mobile reading devices (MRDs) on their reading culture was that MRDs allowed them to read on their terms as one participant explained: "*I dislike being told when to read novels because reading novels is done when you feel like doing it, otherwise, it is not fun*" [Participant 12-FGD].

It was abundantly clear from the findings of this study that mobile devices enabled and afforded the young adolescent learners opportunity to develop their unique reading culture and habits and literary practices that responded to their physical, social and emotional dispositions. In other words, the adolescent learners read on their terms and as they engaged in mobile reading, the desire to self-define and assert their independence grew stronger. This meant that the cross-cutting influence of mobile technologies in the reading lives of the young teenage participants signalled and signified the dwindling adult influence in the cultivation, transmission and perpetuation of reading-related attitudes,

perceptions and beliefs. This failing adult influence on the proximal processes of adolescents simply shows how the vast proliferation of digital technologies is fast reshaping adolescent experiences and what it means to grow up in the twenty-first century.

One of the many transits points the adolescent participants passed through as they journeyed to become mobile readers and asserting their reading culture was by expressing their tastes or reading preferences. Reading preference in this study centred on the preferred reading medium and the preferred reading applications. Furthermore, dimensions such as a preference to read on mobile as opposed to physical books and preference to read on one application over the other are examined.

### **5.9 Mobile reading in the context of Bronfenbrenner's ecological systems theory**

In this section of the study, Bronfenbrenner's (1979, 2005) ecological systems theory is used as a theoretical lens through which the data gathered on the mobile literacy development of a group of Zimbabwean adolescent learners can be conceptualised. Bronfenbrenner developed the ecological systems model in an attempt to explain the influence of the environment on an individual's physiological, biological, psychological, social and cultural development. The theory essentially analyses the various levels of environmental contexts that shape the lifestyles of people and especially young, including adolescents (Cala & Soriano 2014:50). In translating the findings of this study, each of the four environmental layers of Bronfenbrenner's bio-ecological model is considered as a literacy context or layers, which combined with the overarching influence of mobile devices, to shape the literacy development of the participants.

It is evident from the findings of this study that mobile devices constitute a unique environmental context which can be seen as forming a digital ecology or cyber contexts that promote mobile literacy development when considered in terms of Bronfenbrenner's model. This cyber environment is virtual and intensely personal and it undoubtedly exerts an integral influence on the young adolescent learner's developmental processes. According to Plowman (2016:194), mobile devices transcend the concentric rings of Bronfenbrenner's model and are evenly distributed from the microsystem through to the macrosystem.

Bronfenbrenner's bio-ecological model is, thus, used as a frame of reference to interpret and examine the extent to which factors in the technological ecosystem interact to

construct, shape and sustain the mobile reading practices and literacy development of a group of young Zimbabwean adolescent learners.

### **5.9.1 Mobile reading in the microsystem**

Two important concepts from Bronfenbrenner's bioecological model were identified as key in driving the adolescent participants to engage in mobile reading efforts. These variables included the personal characteristics of the adolescent participant and the proximal processes with which the adolescent participants interacted and transacted as they engaged in the act of mobile reading.

#### **5.9.1.1 Mobile reading and the adolescent reader's characteristics**

Bronfenbrenner further simplified personal characteristics from the bioecological systems theory to the three ideas of force, demand and resources (Jaeger 2016:7). The developing reader discussed in this study exhibited three types of personal characteristics which are key components in shaping the reader identity and literacy development of the adolescent learner. In this study, the mobile reading identities of the adolescent participants which emerged as a result of the direct influence of these personal characteristics included that of the non-mobile reader, 'fifty-fifty' mobile reader and the mobile reader.

Force relates to an individual's disposition or temperament to engage in acts of reading. Bronfenbrenner classified force characteristics driving the development of an individual as being either generative or disruptive (Rosa & Tudge 2016:253) and equated to the individual's reading motivation and reading temperament. Resources related to reading media that the adolescent readers interacted and transacted with, were mobile reading devices, internet access and read materials. While demand could be equated to reading interest, desire, enjoyment and sustained reading engagement.

#### **5.9.1.2 Mobile reading and proximal processes**

Proximal processes are defined by Bronfenbrenner as the complicated mutual interactions and transactions between an active, evolving human being and their immediate external environment (Ettetal & Mahoney 2017:5). Proximal processes are engaging, enduring, interpersonal and can also involve interaction with objects and symbols.

In this adolescent mobile reading study, proximal processes were found to be those literacy transactions and interactions which spurred learners to read more. These processes included motivation, drive, interest, recognition, curiosity and challenge. Furthermore, it

was noted that these proximal processes mediated the intellectual, emotional, social and spiritual growth of the adolescent participants as they engaged in mobile reading.

Mobile device novelty and multimedia interactivity of device also counted as proximal in the mobile reading development of the adolescent learner. Reader engagement stemming from relevance and appropriateness of reading content available on mobile further contributed to the development of positive reader identities, reading behaviours and the ultimate establishment of a mobile reading culture.

### **5.9.1.3 Adolescent readers creating digital reading identities in the mobile reading era**

It is evident from the findings that mobile reading devices were the adolescent learner's key gateway for access to the cyber world. The learners used digital social reading media like Wattpad and Worldreader to create online identities that reflected their reading dispositions as well as post content and comments online. As a result, the intellectual and social literacy development of the adolescent learners was greatly mediated by their interaction within digital spaces using their mobile devices.

The process of self-labelling or reconstructing the self through the use of pseudonyms to develop a digital self was a ritual meant to help the adolescent learners assert their independence from the traditional influences in the microsystem (Boyd 2014:32). These online identities were a reconstituted part of the individual's self which they outsourced to the reading platform so that they conformed to what they felt were the acceptable norms of the digital reading platform they were joining as participant 12 did: "*My profile name on Wattpad is ilovemycats2020*" [Participant 12 - FGD). By creating such an online identity, the participants probably wanted to portray themselves as creative and interesting because Wattpad is a platform where creative and imaginative individuals converge to produce and consume digital literature.

### **5.9.2 Mobile reading in the mesosystem**

The mesosystem is the second environmental level in Bronfenbrenner's model, which represents the intersection between two or more microsystems like the home and school. Positive correlation and coordination of literacy goals between and across the various Microsystems, that is, home and school, translates into positive literacy experiences for the developing individual (Jaeger 2016: 6). The influence of the two microsystems and

how they influenced the mobile literacy development of the adolescent participants were considered in this study. The two environmental contexts which featured prominently from the participants' responses in this mobile reading study were the home and the school.

A mismatch between the amounts of time spent reading on mobile at school and the home was observed. The majority of the participants reported engaging in mobile reading at home more than they did at school. The reason for this is that many schools have a zero-tolerance policy on the use of mobile devices for reading during school hours. As a result, stringent rules and policies within the school microsystem militated against the development of a mobile reading culture amongst a group of Zimbabwean adolescent learners. However, the lack of prominence of mobile reading in school did not mean that the school was negating, neglecting or reneging on its literacy development role of the individual. Rather, this indicated that the school as a microsystem still placed greater emphasis on the traditional medium of physical books to develop adolescent literacy. A positive sign was that the principal at the school where the research was conducted was willing to allow the learners to bring their mobile devices to school on Fridays when the researcher was offering interaction in the form of a mobile reading book club.

In the home microsystem, however, the participants had unrestricted access and use of mobile devices like e-book readers, mobile phones and iPads to read. These complemented the participants' already existing literacy activities and reinforced the mobile literacy practices the adolescent learners previously engaged in at home, thus strengthening their mobile reading identities.

These two conflicting reading stances experienced in the literacy mesosystem had a strong bearing on the mobile reading culture of the participants. The participants based their decisions of not becoming or becoming mobile readers on the literacy practices they were very familiar and comfortable with. It was apparent from some participants that physical reading was a safe zone because they were used to it.

### **5.9.3 Mobile reading in the exosystem**

According to Bronfenbrenner's ecological systems model, the exosystem is made up of indirect environments that do not involve the developing person as an active participant but which have a direct influence on the person's development (O'Neil 2015:5). A wide range of forces within the mobile literacy exosystem affected the mobile reading practices of the adolescent participants in this study. These forces included reader connectedness

arising from issues to do with access and connectivity, quality of content on mobile reading applications and data costs.

Mobile reading for the participants of this study mainly involved the consumption of digital content uploaded onto the two different reading platforms used in the study. The developers and authors who uploaded content found on both these reading platforms were drawn from diverse ethnic, geographic and cultural backgrounds. This meant that the adolescent participants of this study were exposed to a multiplicity of worldviews that could directly influence their intellectual, social, emotional moral and spiritual growth as mobile readers.

Furthermore, the participants' mobile reading engagement was affected by connectedness issues. The Worldreader application allowed readers to save and access reading content while offline and Wattpad was mainly an online reading platform. However, Wattpad was more popular amongst the participants simply because it contained content that aligned to the adolescent learners' interests and so they went the extra mile to access the content. The exosystem presented both a lot of opportunities and obstacles which the adolescent participants of this study had no control over. But surely, it affected how they embraced mobile reading as a means of advancing their literacy skills.

#### **5.9.4 Mobile reading in the macrosystem**

The macrosystem, according to Bronfenbrenner's model, is made up of influences such as cultural values, customs and legal expectations of the society the young individual lives in (Alvi, Usman & Amjad 2018: 97-98). The macrosystem layer has a universal effect on all other layers in the structure.

As an action research study, it always had a transformational dimension to it. One of the key dynamics this study sought to do was to define the influence mobile technological devices had in transforming the reading culture of a group of Zimbabwean adolescent learners. Furthermore, the goal of the study was to investigate how the pervasive influence of the mobile device on the lives of adolescents shaped, redefined and reconfigured how the youth read in the twenty-first century. While Zimbabwe as a nation and society has both a rich literacy development tradition and literary heritage, it was abundantly clear that the adolescent reading culture in a mobile-dominated world was no longer solely premised on these two variables alone.

Zimbabwe's national curriculum framework spanning the period 2015 – 2022 recognises the role of technology in education as enabling to become innovative and adaptive as they use a wide range of technological tools to process information and achieve worthwhile learning outcomes (MoPSE 2015:34). This line of thought culminated in the crafting of a draft ICT policy for Primary and Secondary education in Zimbabwe (2017), which acknowledges the importance of mobile devices as tools for delivering alternative modes of learning (see section 2.6.3 for a comprehensive critical discussion on the policy). In Zimbabwe, internet access and connectivity remain a challenge for mobile readers as the costs are often prohibitive for teenage participants and internet speed is also very slow most of the time.

### **5.9.5 Mobile reading in the chronosystem**

In his final rendition of the bioecological systems model, Bronfenbrenner further developed his understanding of the role time plays in the development of the individual to include the idea of the chronosystem. The chronosystem is a time-related concept that Bronfenbrenner used as far back as 1998 to account for "the changing expectations and events in the larger society both within and across generations as they affect and are affected by processes and outcomes of human development over the life course" (Bronfenbrenner & Morris 1998:995).

It is undoubtedly clear that the twenty-first century is the mobile age and the current generation of adolescent learners is a product of this mobile device-driven world as evidenced by the many technology-related labels already ascribed to them such as the hashtag generation Z and iGen (internet generation). Furthermore, the proximal processes of the current adolescent generation are being shaped within this historical context where the mobile device is the most pervasive technological artefact and as such, it should naturally follow that their literacy transactions and interactions should begin to mirror this historical trend. It will also prepare them for the future.

**Figure 5.1: A Bioecological Model of Mobile Reading**



Adapted from Ettekal & Mahoney (2017:5)

The above Bioecological model of mobile is a re-creation of Urie Bronfenbrenner's bioecological model with a specific focus on the mobile reading development of the adolescent individual. The model draws on the findings of this mobile reading study. In the model just as Bronfenbrenner proposed, the adolescent reader is placed at the centre of all mobile reading processes, interactions and transactions. Each system has direct and indirect influences which the adolescent reader either interacts or transacts with to



promote or curtail the mobile reading development of the individual. As the mobile device has a pervasive influence in the life of the individual learner, it transcends and unifies experiences and influences across all the structural layers or and systems of the model.

### **5.10 Conclusion**

This chapter presented the findings on the mobile literacy development of a group of adolescent learners in Zimbabwe. Through the theoretical lens of Urie Bronfenbrenner's bioecological systems theory, a critical interrogation of the developmental processes that shaped the adolescent participants' literacy practices was undertaken. Some of the major thematic categories which emerged from the data were presented in this chapter. The categories were the reader identities of a group of Zimbabwean adolescent learners (microsystem), reading role models and how they influence the reader identity of a group of Zimbabwean adolescent learners (mesosystem). They also included the pre-mobile and mobile reading engagement amongst a group of Zimbabwean adolescent learners (exosystem) and becoming mobile readers - a group of Zimbabwean adolescent learners reads on their terms to develop a mobile reading culture (macrosystem). In the next chapter, the researcher will summarise the key findings of the study, draw conclusions and make recommendations.

## **CHAPTER 6 SUMMARY OF FINDINGS, CONCLUSION OF THE STUDY AND RECOMMENDATIONS**

### **6 Introduction**

Mobile reading devices (MRDs) have brought learners and especially adolescent learners closer to the books they read in a way that was never envisaged as being possible just a few years ago. MRDs appear to have set the stage for new and changing adolescent literacy practices in the world, including some areas in Zimbabwe. This means that MRDs have created immense reading opportunities for some of the Zimbabwean teenage participants.

This study set out to investigate the impact of MRDs on the reading habits of a group of Zimbabwean adolescent learners from a bioecological perspective. Prompted by professional experiences and common claims amongst fellow teachers, it seems some Zimbabwean youth lacks a leisure reading culture. The researcher sought to explore how a group of Zimbabwean adolescent learners decided or decided not to exploit the opportunities to read as presented by alternative forms of reading media like MRDs.

Upon completion of the study, the researcher realised that the group of adolescent learners who constituted the participants of this study had developed their own set of sophisticated reading habits and culture long before they participated in the study. The researcher further discovered that MRDs provide an ideal medium through which the adolescent participants could further broaden their already intricate reading habits and culture. The researcher also realised that getting the adolescent participants to embrace reading on mobile ahead of other mobile device functions was not as simple as the proverbial walk in the park. Several opposing variables such as personality, contextual and environmental and technological variables gave rise to this realisation. The resultant effect of these variable forces was that they created tension and friction which impeded the adolescent participants' mobile reading endeavours. The researcher also realised that some adults viewed mobile device habits and use by adolescents with apprehension, mistrust and suspicion. The commonly held misconception is that the adolescent participants were not responsible enough to make productive use of their mobile gadgets.

The pre-study mobile literacy practices, the mobile reading choices, experiences, successes and failures of the participants are all documented in the previous chapter (Chapter 5). The picturesque portrait of the reading experiences of a group of Zimbabwean adolescent learners that emerged in chapter 5 is a product of meticulous planning, an

extensive review of related literature, methodological pluralism and reflexive investigation. In the researcher's opinion, MRDs are changing the way adolescent learners view and practice leisure reading. This qualitative action research study sought to unravel the extent to which a group of Zimbabwean adolescent learners was prepared to use their mobile devices like phones and tablets to read for pleasure, ahead of other pleasurable functions offered by their mobile devices. To answer the research question, literacy practices interviews, mobile reading journals, the researcher's reflective journal and focus group discussions were used as data collection methods.

The main aim of the study was to:

- Explore the impact MRDs such as mobile phones and tablets had in promoting and sustaining a lifelong culture of reading for leisure among a group of adolescent learners in Zimbabwe.

The objectives of the study were as follows:

- To determine the current reading practices amongst adolescent learners in Zimbabwe.
- To identify the current attitudes and perceptions of Zimbabwean adolescent learners towards reading for pleasure and self-enrichment.
- To investigate ways in which mobile technologies could be used to change the reading habits of Zimbabwean adolescents.
- To assess the impact of mobile reading devices (MRDs) on the attitudes and perceptions of adolescent learners in Zimbabwe towards reading for self-enrichment.

The various data collection tools combined and complemented each other, allowing the participants to provide a comprehensive chronicle of their pre-study mobile reading and post-study mobile reading experiences. This chapter provides a summary of the literature reviewed, the theoretical framework and key findings of the study. Then, the conclusions of the study are discussed to answer the primary and secondary research questions. Based on the findings of the study, recommendations are made and limitations of the study are outlined. The chapter closes with suggestions on directions for future mobile reading research in Zimbabwe.

## **6.1 Summary of the study**

In drawing this study to a close, the researcher takes stock of his research on the impact MRDs had on the mobile reading habits of a group of Zimbabwean adolescent learners. This study through a school-based mobile reading intervention addressed the extent to which a group of Zimbabwean adolescent learners was prepared to use their mobile devices like phones and tablets to read for leisure ahead of other pleasurable functions offered by their mobile devices.

In Chapter 1, the introduction and background to the study were presented. The research problem, aims of the study, the motivation and significance of the study were outlined in chapter 1. An abridged version of the researched design and methodology to be used in the study was explained. The chapter also introduced Bronfenbrenner's bioecological systems theory as the guiding theoretical lens for the empirical study. Key concepts used throughout the study are defined at the end of the chapter.

In Chapter 2, literature related to the study was reviewed. The literature review process was hinged on three broad themes derived from the study title. These thematic areas included mobile devices and mobile device use in education, reading and adolescent literacy. Chapter 2 focused specifically on mobile device use in educational contexts with a view of gaining a broad understanding of mobile device usage trends and influences on pedagogical processes. The chapter further examined the extent of mobile device usage in Zimbabwean schools and the challenges ensuing thereof.

Chapter 3 marked a continuation of the literature review process. However, most importantly, the chapter detailed the key theoretical frameworks which guided the study. These theoretical positions included the Bioecological Systems theory (Bronfenbrenner 1979; 1993; 2006), the Reader Engagement theory (Guthrie & Wigfield 2000) and the Connected Reader model (Turner & Hick 2015). Chapter 3 also explored and unpacked reading theories, reading research and practice in detail. The chapter also examined the connection between reading, mobile technologies and adolescent literacy development.

Chapter 4 presented the design and methodology of the study. Guided and informed by the qualitative research tradition, the study adopted action research as its overarching research design. Data were collected over twelve weeks in three phases (pre-study mobile reading, during study mobile reading and post-study mobile reading phases) using the literacy practices interview, mobile reading diaries and focus group interviews,

respectively. The study was conducted at Forward in Faith Christian College in Harare, Zimbabwe, where the mobile reading experiences of a group of twenty-three adolescent learners were documented and analysed.

Chapter 5 focused on presenting the findings of the impact mobile reading devices had on the reading habits of a group of adolescent Zimbabwean learners. The chapter kicks off by profiling the twenty-three adolescent participants of the study. Secondly, the data analysis approach was highlighted. Then, the data from the literacy practices interview, mobile reading journals and focus group interviews were discussed. Thirdly, the emergent themes from the data on the mobile reading experiences of the adolescent participant were interpreted and discussed. Finally, the researcher used the data from the findings to develop a bioecological model of mobile reading for the participants of the study.

## **6.2 Summary of the literature review**

The researcher reviewed literature in chapters 2 and 3 to acquaint him with the existing body of empirical and theoretical knowledge concerning mobile devices and their use in developing the leisure reading habits of teenagers. The literature search carried out in this study focused on key thematic areas, which helped the researcher gain a broader understanding of the research context and further illuminate the research questions of the study. Adolescent literacy development, mobile devices in education and literacy development and the Zimbabwean context of mobile reading are the thematic areas that formed the crux of the literature survey for this study. The literature revealed a significant and steadily growing body of research, theory and practice which is presently building up in the field of adolescent mobile literacy development. It was also found that the tone and outlook of most of the articles reviewed were largely optimistic, positive and euphoric about the potential role mobile devices could play in the literacy development of individuals.

Chapter 2 focused on reviewing literature that explored the origins, growth and use of mobile devices in educational contexts (Section 2.1). The researcher adopted a funnel approach by first examining literature relating to international trends obtaining in mobile learning and from this global perspective, the chapter then narrowed in on the African response to mobile learning (section 2.2.7). In this chapter, the researcher also unpacked research literature related to mobile learning as it is specifically applied to language learning and skills development (section 2.4). Then, the literature survey in chapter 2

closed with a critical interrogation of the mobile learning situation in the Zimbabwean educational context (section 2.6).

From the literature surveyed in chapter 2, it was found that mobile devices have greatly changed the way knowledge is created, diffused and consumed. It was also noted that mobile devices were well-suited to promote learning in both formal and informal contexts. It was further noted from the research literature reviewed that countries like Australia, The United Kingdom and The United States of America had enthusiastically embraced mobile learning and great strides in research and pedagogical practice were being made to ensure the effective application of mobile technologies to enhance the teaching and learning process. The African response to mobile learning was found to be rather lukewarm and the majority of African countries have reacted by prohibiting mobile technologies in schools while opting for conventional teaching and learning approaches. In Zimbabwe, it was found that very little attention was being paid to mobile learning, if any at all.

The second literature study chapter (chapter 3), reviewed literature on the connection between reading and mobile technologies. The literature review conducted in this chapter also helped in coming up with a theoretical framework that best fits the goals of the study. The fundamental theory used to guide this study was Bronfenbrenner's bioecological theory of human development (section 3.3.1). This theory facilitated an exploration of the individual psyche of the adolescent participants of this study as they interacted and transacted with the mobile reading contexts presented by the study. Bronfenbrenner identified five environmental contexts that were responsible for shaping an individuals' reading habits namely the microsystem, the mesosystem, the exosystem, the macrosystem and the chronosystem. The second theory, Guthrie and Wigfield's reader engagement model helped to shed more light on the operation of the proximal processes of motivation and engagement in shaping and sustaining a mobile reading culture among a group of Zimbabwean adolescent learners (section 3.3.4). The connected reader model by Turner and Hick helped to put into perspective twenty-first-century literacy practices which often involve reading via digitally networked media like mobile devices (section 3.3.3).

Chapter 3 comprehensively examined some reading-related research literature which included amongst others the notion of reading, top-down and bottom-up approaches to teaching reading, reading and motivation and technological trends evolving in the field of reading (section 3.2). The chapter also delved into the realm of reading in secondary

schools surveying literacy instructional practices and developments in literacy instruction with a view of gaining a better appreciation of what is already known regarding reading in Zimbabwean secondary schools (sections 3.4). In chapter 3, the researcher also focused on reviewing research literature relating to the generational characteristics of the twenty-first-century adolescent (section 3.4) as well as the digital and physical reading habits of this generation (section 3.5).

The researcher dedicated sections 3.6- 3.8 in chapter 3 to critically examine the emerging research trends in the mobile reading arena. Research literature that covered aspects such as mobile reading applications and reading skills development was considered. The chapter closed with an appraisal of the mobile reading situation in Zimbabwe (section 3.8) and an examination of the possibilities and problems possessed by using mobile devices for reading purposes.

### **6.3 Summary of the theoretical framework and data collection methods**

Using Bronfenbrenner's bioecological theory of human development, this study generated findings on the impact mobile devices had on the reading lives of a group of Zimbabwean adolescent learners. Guided by Bronfenbrenner's key principles of Person characteristics, proximal processes, context and time, the researcher managed to gather a trove of data that illuminated and gave a deep and broad picture of the mobile reading experiences of the participants.

**Person Characteristics:** This study used the literacy practices interviews to gather data on the participants' literacy characteristics which included reader identity, reading experiences, reading beliefs, reading relationships and challenges.

**Proximal Processes:** Here the researcher used mobile reading diaries and focus group interviews to record the mobile literacy development interactions and transactions the adolescent reader engaged in. Findings from the key proximal processes arising from the mobile reading narratives and experiences of the adolescent learners were recorded. This included the process of becoming mobile readers and how the participants reconfigured and organised their literacy practices around the various reading media at their disposal.

**Contexts:** The influence exerted by mobile technological contexts in shaping the literacy practices of the adolescent participants was a key element to this study. The ubiquitous and pervasive nature of mobile technological environments in the lives of adolescents

created new opportunities for literacy development. Mobile environments overlap and transcend the structural layers of Bronfenbrenner's environment systems. As a result, the study concerned itself with the adolescent participants' actions, beliefs and experiences as they read on mobile, in the microsystem, mesosystem, exosystem and macrosystem.

**Time:** The current generation of adolescent learners find themselves immersed in the mobile era where mobile telephonic devices play an integral role in governing the technological and social interactions in all spheres of modern-day human existence. While the mobile device represents a generational fashion trend of the twenty-first century, its utility as a communicative device in the digital age cannot be understated. This study focused, however, on collecting data on the amount and frequency of time adolescents spent taking advantage of or leveraging the reading opportunities offered by mobile devices.

#### **6.4 Summary of the findings**

This section of the thesis provides a summary of the findings that emerged in chapter 5. The findings summarised in this chapter were gleaned from data collected through literacy practices interviews, mobile reading journals and focus group interviews. To strengthen the credibility and trustworthiness of these findings, the researcher used methodological and theoretical triangulation. The data analysed explored the impact mobile reading devices mobile phones and tablets had on the reading habits of a group of Zimbabwean adolescent learners. Using Bronfenbrenner's Person, Process, Context and Time model (sections 3.9.1 and 3.9.2) to operationalise the research design and analyse data, four themes emerged. The themes are summarised below and these themes capture the viewpoints of the adolescent participants towards reading using mobile reading devices.

##### **6.4.1 Theme 1: The personal literacy characteristics of a group of Zimbabwean adolescent learners**

This theme helped to address the first research question which sought to establish the prevailing literacy practices and reading habits of a group of adolescent learners in Zimbabwe before and at the onset of the study (section 1.6.2). From this theme arose two sub-themes. These included the reader identities of a group of Zimbabwean adolescent learners and the reading role models that influenced the reader identity of a group of Zimbabwean adolescent learners. It was found that these sub-themes constituted direct



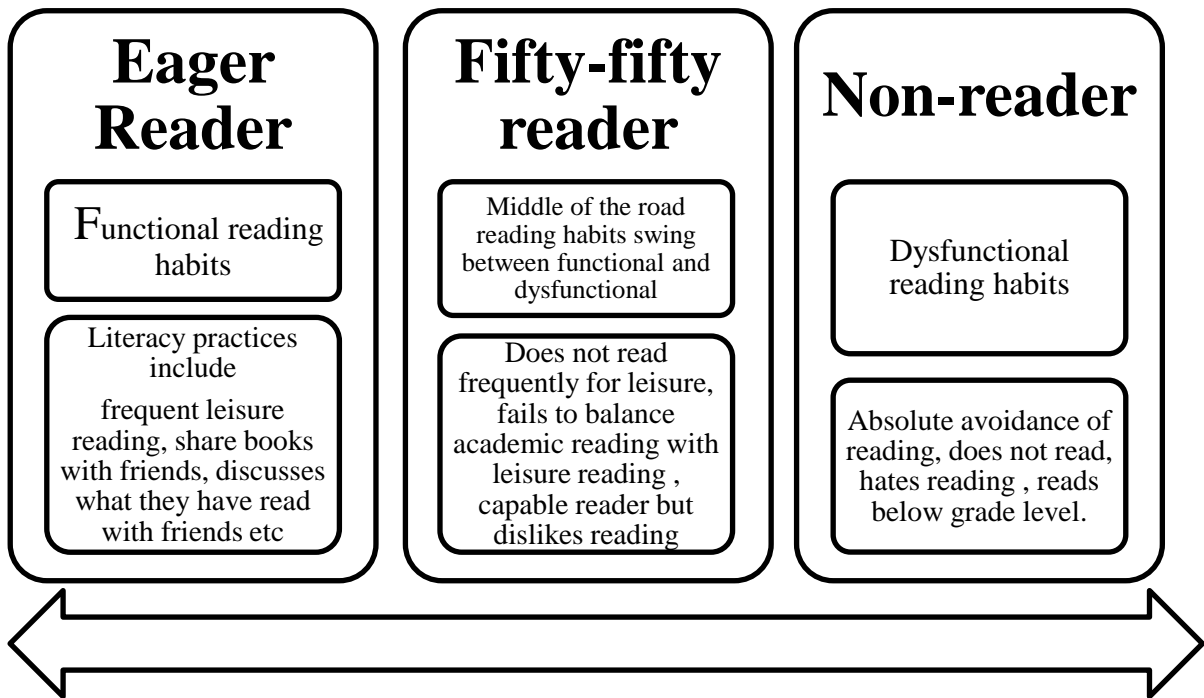
influences in the adolescent learners' literacy lives and as such made up the microsystem of their reading ecology (section 3.3.1).

The key findings under this thematic heading revealed that the adolescent participants of this study had varied and diverse pre-study mobile literacy practices and mobile leisure reading habits. It was noted that the adolescent learners engaged in a broad spectrum of literacy practices that defined their reading habits. These ranged from heavy book usage on and off their mobiles to complete and absolute avoidance of reading on their mobiles. It was also noted, however, that the adolescent participants had started to recreate and redefine their reading habits around the new digital reading platforms (MRDs) to suit the literacy demands and nature of learning in the twenty-first century which has become increasingly digital.

In examining the personal characteristics of a group of Zimbabwean adolescent learners, the findings on both the pre-study mobile reading and mobile reading habits of a group of Zimbabwean adolescent learners revealed three categories of reader identity. These were the eager reader, the fifty-fifty reader and the non-reader (See section 5.6). Through the experiences related by the participants, it is clear that their reading identities were a product of the different literacy practices they engaged in when reading physical or mobile books.

It was also discovered that the adolescent participants had their set of established literacy practices and behaviours. Findings on these literacy practices and behaviours are summarised by the researcher in figure 6.1. The observed reading culture of the adolescent participants of this study can be considered along a continuum of reading habits from being functional and healthy reading habits to being completely dysfunctional and unhealthy reading habits. This spectrum of the different pre-study mobile reading practices and mobile reading habits of the participants was clear through the three unique reader identities that emerged from the data. These are the eager reader, fifty-fifty readers and the non-reader. It is, therefore, folly to typify all adolescents as not having a reading culture as this depends greatly on individual behaviour based on one's reading efficacy.

**Figure 6.1: Continuum of reader identity and literacy practices amongst a group of Zimbabwean adolescent learners**



Design by Bachisi (2020)

#### 6.4.1.1 The eager reader

The eager reader was found to have healthy and functional reading habits (See section 5.6.1). Whether reading on mobile or reading physical books, the participants who considered themselves to be readers managed to maintain their identity as readers. The eager readers managed to capitalise on their previous reading experiences as they engaged in positive literacy practices. These literacy practices which are often considered characteristics of good readers included reading voluntarily, reading frequently, sharing books with friends, discussing what they would have read and reading reflectively. The findings of the study also revealed that some participants who viewed themselves as readers still preferred to read physical books more than mobile books because they exist materially and because they are free from distractions. However, the mobile reading initiative showed that some readers have also embraced mobile books as their preferred reading medium and successfully transferred their reader identities to this reading platform.

#### **6.4.1.2 Fifty-fifty reader**

The findings showed that the fifty-fifty reader's reading habits are an aggregation of both the reader's and non-reader's reading habits. The literacy practices of the fifty-fifty reader can be placed somewhere along the mid-point of the continuum of reading habits amongst a group of Zimbabwean adolescent learners. Some notable literacy practices displayed by the fifty-fifty readers were that they were capable readers who failed to balance the demands of academic reading tasks and leisure reading. The effect could be that this type of reader ends up disliking and avoiding reading.

#### **6.4.1.3 The non-reader**

The study found that the non-reader sits at the lower end of the reader identity and literacy practices continuum amongst a group of Zimbabwean adolescent learners. Non-readers were characterised by dysfunctional reading habits such as the absolute avoidance of reading tasks and a blatant loathing of reading. Some mobile reading experiences of the fifty-fifty readers and non-readers in the study have shown that the adolescent learners were reconfiguring their reading identities around new reading media like MRDs. This shows the novelty technology has in inspiring and motivating all adolescent learners to read for leisure.

#### **6.4.1.4 Reading role models and how they influence the reader identity of a group of Zimbabwean adolescent learners**

Also, it was found that the literacy practices and reading habits of a group of Zimbabwean adolescent learners were greatly influenced by the learners' home set up in the form of family relationships with parents, relatives and siblings and the school as teachers and peers. The reading experiences and opportunities present or absent in the home and the school played a very important role in socialising adolescent learners into becoming eager readers, fifty-fifty readers or non-readers. Various reading role models in the home and school like parents, older siblings, relatives, teachers and members of the peer group helped to shape the reader identities of a group of Zimbabwean adolescent learners. The home and school are two places that often trigger a lifelong love for reading.

##### **a) The home**

The findings from this study showed that the home as a literacy microsystem played a very important role in shaping the reader identities and literacy practices of the adolescent participants. It is within the home that the participants encountered their first reading

experiences and the home continued to provide conducive and safe spaces for the adolescent participants to undertake their leisure reading. Besides, it was noted that homes with a rich reading heritage encouraged positive reading identities and literacy practices amongst the adolescent participants. Those participants who came from book poor or book impoverished heritages did not identify themselves as readers. It was also found that mobile reading was mostly done at home because there were very minimal restrictions or sanctions placed on mobile phone use while adolescent learners were at home. Furthermore, the participants spent most of their leisure time at home. It was also found that in some instances, the demands placed on the adolescent learner by their parents were actual obstacles to both mobile and non-mobile reading. The parents of the participants were often worried about the amount of time their children spent on screen as this increased the possibility and risk of exposure to inappropriate content. This led to conflict between participants and parents as parents placed restrictions on mobile phone use, thus, impeding the learner's mobile reading efforts.

#### **(b) The school**

It was also discovered that the school is another microsystem that plays a very pivotal role as far as influencing the reading identity and promoting the literacy practices of adolescent learners are concerned. The school was found to support the development of the literacy practices of the adolescent learners in numerous ways. The actions of various school agents like head teachers, teachers and peers were recognised as being critical in setting a reading tone within the school which shapes the reading identities of a group of Zimbabwean adolescent learners. Physical book reading amongst the participants was found to be dominant during school times. It was also discovered that Mobile reading at school was yet to gain traction amongst the participants largely because of prohibitive school rules around the use of mobile phones in schools. It was determined that although schools have a positive role to play in fostering positive leisure reading habits amongst adolescent learners, schools are still largely apprehensive towards mobile reading.

#### **6.4.2 Theme 2: Proximal processes shaping the mobile reading of a group of Zimbabwean adolescent learners**

This theme helped to address the third research question, which endeavoured to understand the different ways mobile reading devices (MRDs) could be used to change the reading habits of a group of adolescent learners in Zimbabwe. This theme was treated

under four sub-headings, which allowed for a critical examination of the proximal processes which drove the adolescent participants' mobile reading development. The intellectual, emotional, social and spiritual mobile reading development of a group of Zimbabwean adolescent learners were analysed under this theme (sections 5.7.1 - 5.7.5). Generally, the findings showed that the adolescent participants of this study had positive perceptions about reading for leisure, which motivated them to engage in mobile reading. Regardless of their reading orientation and attitudes, the group of adolescent participants felt that reading was good as it resulted in the intellectual, emotional, social and moral development of the individual. Reading was also associated with the acquisition of numerous skills by the participants. Primarily, the literacy skills gained were associated with reading as well as a growth in vocabulary, grammar, spelling and writing issues. Further skills acquired through reading included cognitive skills (inductive reasoning and critical thinking) and knowledge accumulation.

#### **6.4.2.1 Reading engagement amongst a group of Zimbabwean adolescent learners**

To aptly measure the impact MRDs had on the leisure reading habits of a group of Zimbabwean adolescent learners, the study used the participants' level of engagement during the pre-study mobile reading and while mobile reading phases as a benchmark to gauge impact. Guided by the reader engagement model (see section 3.2.2) and the connected reader model (see section 3.2.1), constructs of engagement involving intrinsic and extrinsic motivation were measured.

Key findings revealed that dimensions of motivation such as the curiosity to read using both mobile devices and physical books were high among the participants (see section 5.8.1). MRDs were found to increase the range and depth of reading choices amongst the participants (see sections 5.8.2 and 5.8.2.1). Furthermore, the use of MRDs in the study gave rise to three different categories of reading preferences, that is, physical book readers, mobile and physical book readers and mobile readers. The study found that the participants' reading engagement was enhanced by the ability and the freedom to choose their preferred mobile reading applications. Moreover, the participants engaged in reading to seek a challenge. Other key findings on reading engagement also showed that the adolescent learners engaged in mobile and non-mobile reading for personal enrichment and nourishment. Lastly, factors that promoted engagement when reading with MRDs were also examined.

#### **6.4.2.2 Mobile reading and the intellectual development of a group of Zimbabwean adolescent learners**

It was found that the participants of this study engaged in mobile reading to satisfy some intellectual cognitive-developmental needs. Also, it was noted that some of the major reasons the adolescent participants engaged in mobile reading were the intellectual growth incentives and cognitive development associated with reading using MRDs. Reading made them feel smarter. Furthermore, it was discovered that the adolescent participants read on mobile to satisfy their curiosity, to conquer linguistic and intellectual challenges and last, for recognition and grades.

##### **(i) A group of Zimbabwean adolescent learners read out of curiosity**

It became clear that the participants were curious to read on both mobile and physical books. Their curiosity led to their engagement to read more. While reading using physical books, the desire to know and learn more about the world around them drove their engagement. With mobile books and MRDs on the other hand, their curiosity was spurred by both the desire to learn more about the world around them and the awe and fascination inspired by the mobile reading technologies. This heightened the level of curiosity of the participants as they suddenly had unlimited access to a wide range of reading materials in the palm of their hands, which they could also access in many formats and at any time. This was liberating and empowering for some participants as they managed to quench their curiosity for reading.

##### **(ii) A group of Zimbabwean adolescent learners reads to satisfy their linguistic and cognitive challenges**

Another key finding was that the adolescent participants engaged in reading to seek a challenge. Regardless of the reading medium chosen (mobile or physical books), some of the participants sought to read novels whose difficulty levels were slightly above their linguistic and intellectual ability (See section 5.8.3). This was encouraging as it could enhance their reading skills, vocabulary and their general language abilities. Some of the participants were motivated to read because they knew that reading is a process of self-improvement, As such, they deliberately engaged in reading to challenge and activate their abilities to develop higher-order cognitive skills and broaden their vocabulary in the target language. This gave them a sense of accomplishment and achievement once they finished reading such novels. This aspect could have a high motivational value for reading.

**(iii) A group of Zimbabwean adolescent learners reads for recognition and grades.**

It was observed that the adolescent learners who participated in this study engaged in leisure reading for recognition from their teachers, parents and peers. The most common form of recognition sought by the participants was in the form of praises and approval, as reading is often a parent-sanctioned activity.

The study revealed that participants engaged in leisure reading as a way of improving their grades. Most of the participants expressed sentiments that they read to improve their linguistic and literacy performance and competence. Whether they read mobile books or physical books, the participants felt that reading sharpened their cognitive skills and grades in school.

**6.4.2.3 Mobile reading and the emotional development of a group of Zimbabwean adolescent learners**

It was found that the adolescent participants were generally upbeat and excited about mobile reading. Mobile reading allowed the adolescent participants freedom to assert themselves and this spurred their emotional growth. It was also noted that mobile reading had a therapeutic impact on the emotional growth of the adolescent participants as it allowed them to relax, relieve boredom and satisfy the curiosity to learn. Besides, mobile reading enabled the participants to cope with the emotional stress associated with growing up as the literature they read provided emotional experiences that talked back to some of the individual learners' circumstances.

**6.4.2.4 Mobile reading and the social development of a group of Zimbabwean adolescent learners**

It was found that the group of participants attached social value to leisure reading. These adolescent learners perceived reading as a form of social activity that they undertook to perform certain social interactions. The participants saw reading as a social activity that they undertook for entertainment, as a form of escape from the real world and its problems and a source of moral instruction. It was observed that a group of adolescent learners engaged in reading because they found reading delightful and pleasurable.

The study highlighted the factors which promoted the engagement of the adolescent participants in mobile book reading. While the participants considered mobile phones as

a symbol of social status, their adaptability and presence in a variety of social settings made them the ideal tools for both social interaction and reading.

The participants engaged in mobile reading because it was easy to access a wide range of reading materials on mobile. Mobile devices and books are also portable and ubiquitous which made it easy and convenient to read anywhere and anytime. The participants were not limited or confined to certain social spaces that have traditionally been assigned as being ideal for reading. Lastly, it was found that mobile books had interactive multimedia features which also increased the level of reading engagement amongst the adolescent participants.

Thus, it was noted that reading is a very important social activity in the lives of adolescent participants. The social worth attached to reading by adolescents is very important in promoting reading. Therefore, mobile devices as social devices are very important in fostering reading engagement amongst adolescent learners.

#### **6.4.2.5 Mobile reading and the spiritual and personal development of a group of Zimbabwean adolescent learners**

It was found that the participants practised self-censorship as they engaged in mobile reading. The adolescent learners made a conscious effort to read age-appropriate literature and often openly showed resentment in their responses to explicit or sexually erotic literature available on fanfiction available on Wattpad. This ability to discern between good and bad reading material fuelled the moral and spiritual development of the participants. It was also noted that the adolescent participants in this study read non-fiction texts like autobiographies and motivational literature to draw inspiration for their personal growth. Lastly, the participants read because they felt that they acquired good moral lessons and values from some of the texts they read. This led to their spiritual growth and a good example of a religious text like the Bible.

#### **6.4.3 Theme 3 Technological contexts shaping the mobile reading habits of a group of Zimbabwean adolescent learners**

This theme unpacked the technological contexts which made mobile reading among a group of Zimbabwean adolescent learners a reality. Findings under this theme addressed the fourth research question whose goal was to find out different ways MRDs could be used to change the reading habits of a group of adolescent learners in Zimbabwe. Under this thematic heading, the mobile technological factors promoting and hindering the



mobile reading endeavours of the adolescent participants were analysed. Likewise, this theme analysed the reading preferences of the adolescent participants.

#### **6.4.3.1 Factors which promoted a mobile reading**

Some factors were found to be responsible for motivating the adolescent participants of this study to engage in mobile reading. These factors observed include ease of access to reading materials on mobile, portability and ubiquity of mobile devices, mobile book features and affordability. These factors worked individually or in combination to provide gratification as they made mobile reading pleasurable, exciting and engaging.

In the study, it was discovered too that mobile technological devices like cell phones and tablets created rich technological and environmental contexts within which the group of Zimbabwean adolescent learners interacted and transacted with to engage in mobile reading. Furthermore, it was observed that mobile phones and tablets could readily and easily be transformed into MRDs, thereby transforming the way adolescents perceived reading and their reading habits as well. It was realised that mobile devices broadened the book delivery options available to the adolescent participants. It was found that several reading options availed themselves to the group of Zimbabwean learners who participated in this study. First, they could choose between reading physically from hard copy books or electronically on mobile. These options also included numerous free mobile reading applications to choose from.

#### **6.4.3.2 Barriers to mobile reading amongst a group of Zimbabwean adolescent learners**

It was discovered that some factors acted as barriers to mobile reading. It was clear that these factors could militate against the successful mobile reading efforts of the adolescent participants, leading them to likely disengage from reading completely. The key findings showed that the barriers to mobile reading included the high cost of mobile ownership, device breakage and technical challenges such as short battery life and small screen size. While a low percentage of these factors were recorded in the study, these factors still posed a great threat to the successful adoption and acceptance of mobile reading amongst the adolescent participants in Zimbabwe.

### **6.4.3.3 A group of Zimbabwean adolescent learners expresses their reading preference**

The participants of this study expressed their reading preferences in many different ways. Firstly, they expressed their preference by choosing text and genres that were of interest to them like comics, teenage fiction, adventure and mystery books, motivational books and biographies. Some of the participants, especially the good readers, also expressed their preference to read about other leisure activities such as playing and watching television. Fifty-fifty readers and non-readers, on the other hand, were less engaged in reading as they preferred watching television, playing outside and playing video games ahead of reading.

The participants expressed their reading preferences as far as the medium for reading is concerned. Confronted with the choice to read either mobile books or physical books, three fronts of reading preferences emerged. Some participants chose to read physical books only, while others preferred reading both mobile and physical books. Others just preferred reading mobile books only.

The participants were free to choose the reading application they felt was more appealing to them. In this study, Wattpad was the most preferred mobile reading application compared to the Worldreader mobile reading application (See sections 4.3.6 and 4.3.7 for a discussion on Wattpad and World reader). It was found that Wattpad was more popular between the two reading applications because it is based on fan fiction or the principle of user-generated content in technological terms. It aligned well with constructivism as the epistemological basis of the study (See section 4.1.2). Wattpad was popular due to the flexibility of reading material which was free, contributed by fans and written uniquely and refreshingly, which rarely bend or conform to the strict rules of form, style and decorum as conventional reading material does (Contreras, Gonzaga, Trovela & Kagaoan 2015: 311).

Other mobile book delivery options that the participants discovered on their own and seemed to take full advantage of included audio books, moving animation books and interactive flipbooks, all of which promoted and increased reading engagement amongst the adolescent participants. It was evident that MRDs broadened the preference range of reading materials and genres for the adolescent participants, thereby promoting and increasing reader engagement.

#### **6.4.4 Theme 4: Becoming mobile readers - a group of Zimbabwean adolescent learners reads on their terms to develop a mobile reading culture**

This study was about change, adoption and acceptance of mobile devices as alternative and viable tools for reading amongst a group of Zimbabwean adolescent learners. The study took place over a timeframe of twelve weeks. This theme addressed the fourth research question which aimed to establish how the use MRDs influenced the attitudes and perceptions of Zimbabwean adolescent learners towards reading for self-enrichment. Exploration of this theme revealed the response of the adolescent generation to technological trends and the different ways the mobile era altered learning tasks the learners often considered to be mundane and routine both within and outside the school contexts.

A key finding which emerged from this study is that the mobile reading habits of adolescent learners can be classified under two actions, that is, incidental reading and engaged reading (see section 3.5.2). Incidental reading relates to everyday occasional reading that is associated with the communicative function of mobile devices such as reading, composing and sending a text message. It is common and characterised by short and often colloquial forms of digital texts as adolescent learners engage in day-to-day communication. Incidental reading was practised by all groups of readers identified in this study. It is normally practised as a sub-conscious and involuntary act (reading by default). Engaged mobile reading, on the other hand, was found to be deliberate, serious and more sustained than incidental reading. This was practised by the participants on both academic texts (school notes, researching the internet for assignments) and leisure reading texts on mobile (see section 1.3.2).

All the adolescent learners engaged in mobile reading and it was discovered that their mobile reading encounters and experiences shaped how they felt and perceived mobile reading. Some of the participants preferred to continue reading physical books because they were frustrated by things like short battery life while reading on mobile, small screen size and distractions from notifications. Others bemoaned the inability of being able to hold and flip through the pages of a physical book. Another group said they would prefer to read both physical and mobile books largely because MRDs are not allowed at school. As such, they did most of their mobile reading at home. The group of exclusive mobile readers did so because they could read multiple books at a time and felt that mobile reading

was cool. Even non-readers felt they could listen to and tolerate audio e-books. Some of the participants had stopped mobile reading because their MRDs had been broken or taken away by parents for suspected abuse.

## **6.5 Bronfenbrenner's Bioecological environmental systems and findings of the study**

This section summarises the findings of the study as they relate to Bronfenbrenner's environmental systems of the bioecological model of human development. In his theory, he identified five environmental contexts that he saw as instrumental in shaping the development of the becoming individual. These environmental layers are the microsystem, the mesosystem, the exosystem, the macrosystem and the chronosystem. This section aligns the findings of the impact mobile reading devices had on the reading habits of a group of Zimbabwean adolescent learners to the five ecological layers of Bronfenbrenner's bioecological model.

### **6.5.1 Summary of findings in the microsystem**

This is the first of the ecological systems identified by Bronfenbrenner and is within this environmental context consisting of the interpersonal interactions in an individual's life (Ashiabi & O'Neal 2015:2). The microsystem constituted those day-to-day interactions with self, family, friends, school and popular culture, which promoted or hindered the mobile literacy development of the adolescent participants.

#### **(i) Individual characteristics**

Bronfenbrenner acknowledged the importance of the individual's biological and genetic make-up in the establishment and sustenance of proximal processes that drive human development (Rosa & Trudge 2013:252). Personal characteristics identified in this study included individual reading beliefs, attitudes and perceptions towards reading, reading experiences, motivation to read and temperaments.

All the adolescents who took part in this study brought with them a special part of themselves and this allowed every one of them an opportunity to contribute uniquely to the outcome of this study. The individual personality of each participant played a powerful role in influencing the impact mobile reading devices had in shaping the reading habits of a group of Zimbabwean adolescent learners.

It was found that interpersonal relationships that existed in the mobile reading microsystem of the adolescent participants' lives were made up of members of the nuclear

or extended family. The majority of the participants who took part in this study came from the traditional nuclear family made up of two parents and siblings. In some cases, the extended family structure was not uncommon and interactions with relatives like uncles and aunts helped shape the literacy practices of the participants. It was also observed that the participants came from middle-income families and this meant the participants could afford to own a mobile device, a scenario which suited the Bring Your Own Device (BYDO) approach adopted by this study. It was noted that older siblings played an instrumental part in expanding the literacy and literary horizons of the participants (see sections 5.6.2.1. for a comprehensive discussion of the family's influence in shaping the mobile reading environment of the adolescent individual).

It was found that the school was another critical microsystem that greatly influenced the mobile reading habits of the adolescent participants of this study. All the participants who took part in this study were of secondary school-going age. They attended Forward in Faith College in Belvedere Harare. It was noted that teachers were the greatest promoters of literacy development in the school. However, the school environment did not specifically promote mobile reading as the school rules strictly prohibited the use of mobile phones at school. Furthermore, a hectic academic programme left participants with very little time to engage in mobile reading for leisure. The school was also a space where the participants interacted and transacted with their peers. With their peers, the participants shared common interests and influenced each other's beliefs and behaviour. In this study, the peer group influence was particularly powerful in establishing mobile literacy practices like reading on Wattpad.

### **6.5.2 Summary of findings in the mesosystem**

The second layer of the human ecological system in Bronfenbrenner's model is the mesosystem. This stage focuses on the interrelationships between microsystems that surround the individual (Ettedal & Mahoney 2017:4). In this study, the researcher examined the interrelationships in the participants' mobile reading lives. The findings from the data analysed in this study showed the home microsystem and the school microsystem as sharing an interrelationship which shaped greatly the mobile literacy development of the participants.

On the surface, one can easily conclude that an adversarial or no interrelationship existed between the school and the home in as far as the participants' mobile literacy practices

were concerned. The data obtained showed the school as having a zero-tolerance policy to mobile devices and any other activities related to mobile devices use or ownership within the school premises or school hours. This negative attitude by the school towards mobile devices suffocated any mobile reading eagerness the participants might have had. The home, on the other hand, became the alternative space where the participants engaged in mobile reading because there were no restrictions or sanctions on mobile device use.

Nevertheless, further examination of the adolescent participants' responses revealed that the literacy learning and development goals of the school and the home were very similar. Both microsystems saw eye to eye concerning the primacy of literacy development in the academic success of the developing individual. In both microsystems, teachers and some of the parents supported and created ample reading opportunities for their children by either being reading role models themselves, paying for library subscriptions, buying reading books and simply creating a rich literacy environment in which to immerse the participants. The only source of conflict was the medium through which literacy was developed.

### **6.5.3 Summary of findings in the exosystem**

The exosystem refers to the broader social structure which is outside the direct scope of the interaction of the individual, but has a direct bearing on their development (O'Neil 2015:5). In other words, the exosystem can be considered as a third-tier microsystem in which the developing individual is not directly embedded. However, this environmental context is full of forces that directly influence the development of the individual.

The data examined in this study showed that the adolescent participants encountered several forces in the exosystem, which presented opportunities and obstacles for mobile reading development as they undertook their mobile reading journeys. All the participants in this mobile reading study used reading applications which they added to their mobile devices. Although the participants made a conscious decision to download these mobile reading applications onto their devices, they had no control over the content, design or layout of reading materials they encountered on the reading applications they used. While the researcher had recommended that the participants should use the Worldreader mobile reading application, the adolescent participants also discovered Wattpad which they fell in love with largely because the stories on Wattpad resonated around their worlds as teenagers. Decisions on the nature and shape of content and what should be contained on

these mobile reading applications were made in an environmental context far removed from the participants' scope of reality. But, the choices and preferences the participants made as they engaged and connected with persons on these mobile reading applications greatly shaped them as they became mobile readers.

The data also revealed that technological factors in the exosystem presented challenges for the mobile literacy development of the adolescent participants. It was found that procuring and owning a mobile reading device was the easiest step for the adolescent participants of this study. The maintenance costs associated with owning and using the technological device are what proved a challenge for the participants. The prohibitive data costs presented the greatest obstacles which militated against the adolescent participants' mobile reading endeavours. Expensive data meant that the participants did not connect online as frequently as they would have loved to engage with content on their favourite mobile reading application Wattpad as it has no offline viewing capabilities. Furthermore, the adolescent participants had no access to the school Wi-Fi passwords which in any case was futile as they were not even allowed mobile devices at school. On each of the twelve Friday afternoons the researcher met with the participants, the researcher had to provide data for each participant to ensure that they engaged in mobile reading during the mobile reading sessions.

#### **6.5.4 Summary of findings in the macrosystem**

The macrosystem involves the wider society and refers to those set of beliefs, norms, cultural values and laws which affect an individual's decision-making capacity (O'Neil 2015:117). Studying the mobile literacy macrosystem facilitated an examination of the ideological influences, patterns and behavioural norms which helped to shape the adolescent participants' decision-making in developing their mobile reading habits and in turn, a mobile reading culture.

It was observed that this study was couched in a literacy environment in which adolescents were naturally expected to independently carve and forge their literacy and literary culture along with predetermined or pre-set generational expectations. Zimbabwe's glowing statistic as a nation with a high literacy rate and the burden of maintaining such a high literacy rate places an immense amount of pressure on the younger generation of learners. The adolescent learners in this study often found themselves suffocating under the weight of this expectation. This action research study gave the participants a voice in which they

told their side of their reading and literacy development story. The adolescent participants approached literacy differently from that of their predecessors, the older generation. The adolescent learners felt they are growing up in an already literacy-rich environment where they were naturally immersed into various forms of literacies (print, electronic and digital literacies). Hence, they did not understand the fuss by the older generation for the need to put an effort in deliberately developing their literacy when they were already in richly-endowed literacy environments. They believed that they engaged in a lot of incidental reading daily because of the high exposure to text in the wider environment that they found it necessary to read on their terms to determine their reading culture be it on mobile or via physical books.

It was also found that the technological landscape constituted another very important element of the literacy macrosystem of the adolescent participants' reading lives. It was observed that mobile technologies had a very profound impact on the lives of the adolescent participants of this study to such an extent that they have evolved their technological norms and values. It was further recognised that mobile devices allowed the participants greater expressive freedom and establish shared values with their peers as far as reading and literacy development is concerned. The Zimbabwean Ministry of Primary and Secondary education, on the other hand, has adopted an open-ended and non-definitive stance on the application of mobile technologies in schools. This gives schools a *carte blanche* to innovate on how best they can develop learners' literacy skills through mobile technologies. From the findings of this study, it is clear that this group of learners are ready and open for technological solutions that will excite and engage them as they learn how to read, read to learn and read to enjoy themselves.

#### **6.5.5 Summary of findings in the chronosystem**

Bronfenbrenner postulated that all systems in the bioecological model are situated in time. As a result, he proposed the chronosystem, the fifth environmental system in the model which concerned itself with the impact time has on the developing individual (Zhang 2018: 1768). The chronosystem also alludes to the transitions, changes and shifts that take place over the life course of an individual. The chronosystem allowed the researcher to critically interrogate the changing attitudes and perceptions of the participant as they journeyed towards becoming mobile book readers.



From the data collected, it was apparent that the adolescent participants were beginning to reconfigure and model their literacy practices around their mobile devices. Whilst some of the participants saw and considered themselves as mobile readers, some of the participants still felt reluctant to start making the transition from being physical book readers to mobile readers. Only time will tell how much longer this nonchalant attitude towards mobile reading will persist as the adolescent participants are continually bombarded with technological hegemony every day of their lives. Furthermore, almost all facets of human existence and social interactions are making the migration to digital contexts, a shift that might be too radical to ignore.

The succeeding section discusses conclusions arrived at as a result of the key findings of the study and tries to explain how each of the research questions was addressed.

## **6.6 Research Conclusions**

In the foregoing sections, the researcher summarised the findings from the literature reviewed, the theoretical framework and themes emerging from the data collected from the empirical study. In this section, the researcher presents conclusions drawn from the findings on information and data gathered from the empirical study. The conclusions drawn from the data are based on the research questions raised in chapter 1 (see Section 1.6). The researcher starts by answering the following research questions:

- What are the current literacy practices and reading habits of a group of adolescent learners in Zimbabwe?
- What are the current attitudes and perceptions of a group of adolescent learners in Zimbabwe towards reading for pleasure and self-enrichment?
- In what ways can mobile reading devices (MRDs) be used to change the reading habits of a group of adolescent learners in Zimbabwe?
- How does the use of mobile reading devices (MRDs) influence the attitudes and perceptions of Zimbabwean adolescent learners towards reading for self-enrichment?

These sub-research questions assisted in answering the main research question "To what extent are a group of Zimbabwean adolescent learners prepared to use their mobile devices like phones and tablets to read for leisure ahead of other pleasurable functions offered by their mobile devices?"

### **6.6.1 Answering Secondary research question 1**

*What are the current literacy practices and reading habits of a group of Zimbabwean adolescent learners before the inception of the mobile reading intervention?*

It is evident from the findings and foregoing discussion that the secondary research question was successfully addressed. A group of Zimbabwean adolescent learners had literacy practices that can be described as being healthy. Their literacy practices stemmed and were supported from a vigorous book reading culture which has been initially established in the literacy microsystem that constituted the home and supported throughout their primary and secondary schooling years by a robust reading instruction programme. These reading support structures found in the microsystem surrounding the adolescent learners facilitated constant access to a steady supply of reading materials in the form of grade-appropriate readers.

### **6.6.2 Answering secondary research question 2**

*What are the current attitudes and perceptions of a group of adolescent learners in Zimbabwe towards reading for pleasure and self-enrichment?*

Once this group of adolescent learners had access to the various materials, it was up to them to establish and define their own reading identities and habits. A mixed bag of reader identities and reading habits emerged in this study. These varied from positive and sustained reading habits to no reading habits at all. However, the long and short of it all is that the adolescent participants asserted their independence and developed reading habits according to their life schedules and on their terms.

Despite the varied reading habits displayed by the adolescent participants, one common thread ran throughout their responses. The majority of participants were aware of and fully acknowledged the positive influence reading had on their personal and academic lives. As a result, the learners perceived reading in a very positive light despite some of them not engaging in it at all.

### **6.6.3 Answering secondary research question 3**

*In what ways can mobile reading devices (MRDs) be used to change the reading habits of a group of adolescent learners in Zimbabwe?*

Based on the findings of the adolescent learners' experiences documented in their mobile reading journals while reading on mobile devices, the researcher discovered several ways

through which MRDs could be used to transform their reading habits. Firstly, the adolescent participants of the study were exposed to mobile reading intervention as a school-based mobile reading book club. Involvement in the school-based mobile reading club meant that the participants began to perceive their mobile devices not just as a tool they used for communication but as a tool they could use to advance and develop their reading literacy and vocabulary.

Through narratives of the participants' experiences documented in the mobile reading journal, the participants transformed their mobile devices into reading gadgets as they discovered folktales from distant countries on the Worldreader and read fan fiction on Wattpad. The participants also read through, read along and listened to audio books. Along with the transformation of their mobile devices into reading tools, so too did their reading habits begin to shift. This multiplicity of literacy capabilities offered by their mobile devices saw participants documenting changes in their literacy practices.

#### **6.6.4 Answering secondary research question 4**

*How does the use of mobile reading devices (MRDs) influence the attitudes and perceptions of Zimbabwean adolescent learners towards reading for self-enrichment?*

The evaluative focus group interview was designed to elicit responses meant to answer research question four of the empirical study. It was found that MRDs had greatly changed the way the participants perceived reading. All the adolescent learners in this study went through a mixed cycle of experiences as they decided whether to use their mobile devices like phones and tablets to read for leisure, ahead of other pleasurable functions offered by their mobile devices.

The school-based mobile reading intervention and the subsequent analysis of findings of this study showed that mobile reading was still a largely new and uncommon phenomenon amongst adolescent learners in Zimbabwe. The results of the study proved that a change in attitudes and perceptions to reading for leisure as a result of exposure to mobile reading was a process that the participants are gradually and painstakingly still going through.

#### **6.6.5 Answering the main research question**

*What is impact of mobile reading devices on the reading habits of a group of Zimbabwean adolescent learners?*

This section of the study reconnects with the main research question which is to examine the extent to which a group of Zimbabwean adolescent learners was prepared to use their mobile devices like phones and tablets to read for leisure, ahead of other pleasurable functions offered by their mobile devices.

The main research question has been the guiding compass giving the direction of this study. The research question continually lingered in the background as it guided the direction of actions and decisions taken in this study. The primary research question to this study read as follows:

- To what extent are a group of Zimbabwean adolescent learners prepared to use their mobile devices like phones and tablets to read for leisure, ahead of other pleasurable functions offered by their mobile devices?

The main research question was successfully addressed. Primarily, the mobile reading intervention used in this study enjoyed a reasonable degree of success as most of the participants were prepared and able to reconfigure and reconstruct their reading habits around the new reading media, which were MRDs. Only six out of the twenty-three participants reported in the literacy practices interview to have engaged in mobile reading for leisure using a mobile phone or mobile reading application before the onset of the study. The mobile reading practices of these participants at this stage were largely casual, non-routine and haphazard. The other participants reported having undertaken largely incidental reading and academic reading on mobile. However, as the study progressed as shown by the mobile reading journals and as it drew to a close in the focus group discussions, it became apparent that the majority of the participants had begun to adopt and routinely accept mobile reading as a legitimate part of their leisure reading habits.

The participants did not necessarily change their reading habits or adopt new habits but rather, they realigned their reading habits to suit the MRDs as their new reading medium. The trend that evolved was that the participants maintained their pre-mobile reading identities. However, they had to figure out the best ways to match their reader identities to the demands of the reading technology. Out of the three reader identities identified amongst the participants of this study, the greatest impact of MRDs on the reading habits of the adolescent participants was experienced amongst the non-readers. The audio function of mobile books was quite appealing to the non-readers as it helped them

overcome their phobia of reading and books as they began to read by listening to audio books being read to them on their MRDs. These actions did not necessarily signal a shift in the reader identity of the participants but they represented a potential shift in the literacy practices of the adolescent learners as they embarked on the process of becoming readers.

MRDs had the smallest impact amongst the group of participants who at the beginning of the study considered themselves as eager readers. Initially, these participants tried out mobile reading but rather continued to express a preference for reading conventional books. These participants isolated negative aspects of mobile reading devices such as distractions by other phone functions and applications while reading, short battery life of MRDs and the unnaturalness of mobile books as big let downs for mobile reading. The general feeling amongst this group of participants was that these aspects of mobile reading slowed them down and stifled their reading engagement. This group remained conservative and did not change their reading identity or reading habits.

Also, MRDs had the greatest impact on whether the adolescent participants read at home or not. All of the participants in the study reported using their mobile devices for reading at home. The main reason for this was that the participants spent most of their leisure time at home and that very few restrictions were placed on mobile phone use whilst in the home. The school, on the other hand, was discovered to have the least influence on the mobile reading practices of the adolescent participants in the study. Mobile devices and mobile device use were strictly prohibited by their school. As such, adolescent learners did not engage in mobile reading in the school at any time and in any way unless special concessions were granted by the school authorities. Thus, at school, the adolescent learner was left with no choice except to read physical books.

The technological awe factor of MRDs also made a very big impression on the adolescent learners. Some of the participants were clearly drawn to MRDs because of the variety of technological features and capabilities. The participants realised that they were able to create their own digital libraries and they were able to read multiple books on one device simultaneously. These new literacy practices afforded by MRDs stimulated their interest to read as it made reading fun and enjoyable. Other aspects of MRDs which had a great impact on the reading engagement of the adolescent participants included the presence of interactive mobile books with enticing hotspots such as links to dictionaries and audio-visual capabilities of the books. However, the awe factor surrounding technological

devices is short lived and in the case of the mobile reading intervention, the adolescent participants could need some form of extrinsic motivation like book share activities to promote their reading.

At the end of the day however, the greatest influence of mobile devices was that they are portable and ever present in the lives of adolescents. It is these two important qualities that need to be leveraged in any mobile reading programme to ensure that adolescent learners find reading on their mobile devices to be just as normal, natural and pleasurable as texting, listening to music, updating their status on WhatsApp or posting their selfie on Instagram.

## **6.7 Fulfilling the research aims**

This section revisits the research objectives to take stock whether these were achieved or not. The following sub-research aims arose from the main research aim:

- To determine the current literacy practices and reading habits amongst a group of adolescent learners in Zimbabwe.
- To identify the current attitudes and perceptions of Zimbabwean adolescent learners towards reading for pleasure and self-enrichment.
- To investigate ways in which mobile technologies could be used to change the reading habits of a group of Zimbabwean adolescent learners. ; and
- To assess the impact of mobile reading devices (MRDs) on the attitudes and perceptions of a group of adolescent learners in Zimbabwe towards reading for self-enrichment.

In order to fulfil the two sub-research aims above the researcher used a number of data collection methods the literacy practices interview, mobile reading journals and focus group interviews. Each data collection tool was designed to illicit sufficient responses from the respondents which facilitated the realisation of the aims and objectives of this study.

### **6.7.1 Fulfilling sub-research aim 1**

*To determine the current literacy practices and reading habits amongst a group of adolescent learners in Zimbabwe.*

In order to fulfil this aim of the empirical study, the researcher collected data on the participants' pre-study mobile reading literacy practices and reading habits using the

literacy practices interview. The purpose of the literacy practices interviews was to allow the researcher to gain deeper insight into the existing reading behaviours and habits of the teenage participants before they were introduced to the mobile reading initiative. This facilitated the successful realisation of the sub-research aim as the researcher was able to identify through the literacy practices interview the literacy practices and reading habits of the participants which led to the categorisation of the participants into three groups namely ; eager readers, fifty-fifty readers and non-readers.

### **6.7.2 Fulfilling sub-research aim 2**

*To identify the current attitudes and perceptions of Zimbabwean adolescent learners towards reading for pleasure and self-enrichment.*

The second sub research aim was also realised through the use of the literacy practices interview as a data collection tool (See section 4.3.5). The instrument was used to adjudge the adolescent learners' perceptions and attitudes towards reading. Furthermore, the researcher used the data from the said instrument to determine the attitudes and perceptions the participants held towards leisure reading before the mobile reading intervention was introduced. It emerged that the adolescents' perceptions and attitudes towards leisure reading were shaped in two institutions which were the home and the school and which form the micro level as set out in Bronfenbrenner's systems theory. These two institutions were responsible for socialising the participants into their reader identities and they were a product of their attitudes and perceptions towards leisure reading.

### **6.7.3 Fulfilling sub-research aim 3**

*To investigate ways in which mobile technologies could be used to change the reading habits of a group of Zimbabwean adolescent learners.*

This sub-research aim was successfully achieved as the researcher used self-report instruments in the form of mobile reading journals (See section 4.3.5). The said instrument opened up the adolescent participants' mobile reading worlds to the researcher, allowing him to connect with the ways in which the mobile devices shaped their reading habits. The researcher realised that the first step towards successful mobile reading was the simple omnipresence of the mobile devices in the lives of the participants themselves. This should then be complemented with a deliberate effort to continuously search for and identify mobile reading applications that engage and motivate the adolescent learners to read.

#### **6.7.4 Fulfilling sub-research aim 4**

*To assess the impact of mobile reading devices (MRDs) on the attitudes and perceptions of a group of adolescent learners in Zimbabwe towards reading for self-enrichment.*

In order to evaluate the influence MRDs had in changing the reading attitudes and perceptions of a group of adolescent learners in Zimbabwe, the researcher used the focus group interviews. The focus group interviews were used to measure the extent of the adolescent participants' changing attitudes and perceptions towards mobile reading in particular and leisure reading in general. This helped to fruitfully achieve the sub-research aims of the study as it was found that MRDs were beginning to positively influence and transform the ways in which the participants perceived reading. Furthermore, the investigation revealed that mobile reading is a multi-layered and multi-step process which will take time to be ingrained in the reading lives of the adolescent participants thus taking a while to alter the perceptions they hold towards leisure reading.

#### **6.8 Recommendations**

This study identified a number of key stakeholders who were likely to have a keen interest and influence in the Zimbabwean mobile reading arena. These parties included the learners, parents, teachers, school management, mobile reading application developers and the MoPSE. It was found that these various stakeholders exerted direct and indirect influence in the successful management and implementation of mobile reading initiatives in Zimbabwe. The recommendations set out in this section are based on the findings of the study and are directed at each key group of stakeholders with suggestions on how the mobile reading experience can be used to enhance adolescent learners' mobile reading in Zimbabwean secondary schools and beyond.

##### **6.8.1 Recommendations to the learners**

Bronfenbrenner identified the individual's personal characteristics as an important proximal element in the literacy development of the becoming learner. In other words, the key ingredient to success in any literacy development action is the drive which the individual reader has to learn to read. The individual is the key focal point of any reading innovation, reading initiative and reading intervention and as such, how the individual responds and reacts to these forces is important to the successful literacy growth of that individual.



For learners to fully take advantage, exploit and leverage the literacy development opportunities afforded by MRDs, the following recommendations are made.

- Adolescent learners are encouraged to explore and experiment with as much mobile reading applications as possible so that they find the ones that suit and match their reading interests.
- Learners are encouraged to create online communities of connected readers (see section 3.2.1) to support each other's reading habits and where they can read and share reading ideas and materials on their own terms.
- Adolescent readers are encouraged to use solar powered battery chargers where possible and power banks for charging their mobile devices and to extend the battery life of their mobile devices especially if they decide to read on the go.
- Adolescent readers should protect their MRDs with screen guards to prevent shattering of screens when the device falls. Readers can also use rubber pouches to absorb the impact of falls on the MRDs
- To reduce the cost of mobile data, the adolescent readers could take advantage of free Wi-Fi zones located at most of the mobile service providers' shops, some residential shopping malls and fast food outlets. The adolescents could use these zones to connect to the internet to download their mobile reading applications and mobile books which they could read later when offline.

### **6.8.2 Recommendations to the parents**

According to Bronfenbrenner, parents are key players in the literacy development of the adolescent individual. Their role and actions in the literacy microsystem can create pivotal reading interactions and transactions for the adolescent reader which may be instrumental in moulding their lifelong literacy practices and reader identities. The following recommendations are made to help parents create ideal literacy development opportunities which may enhance the mobile reading experiences of their teenage children.

- The parents of adolescent learners need to understand and be aware that MRDs and mobile books are legitimate reading media and source of knowledge and literacy skills respectively. Parents can be educated by the school or other player on the efficacy of MRDs through parent seminars.
- Parents should create ample opportunities and support structures in the home for their children to read on mobile.

- It is recommended that parents be actively involved in and be supportive of the reading lives of adolescent learners, by respecting and observing their freedom of choice when it comes to expressing their reading preferences.

### **6.8.3 Recommendations to teachers**

The study found that teachers were key and central proximal figures in literacy development of the adolescent individual. The teacher is a figure who features prominently in the developing reader's literacy mesosystem. The teacher as the literacy instructor and facilitator set in motion important proximal interactions and transactions that shaped the lifelong reading personalities of the adolescent participants. It was found that teachers were more influential than any of the other literacy stakeholders in generating reading opportunities for the adolescent participants. Given this prominent role educator's play in the literacy lives of adolescent learners, a number of recommendations are made on how teacher can further support and enhance the mobile reading and literacy development efforts of adolescent learners.

- Teachers should appreciate that each individual has a unique reader identity and that with regard to reading, individuals develop at different rates depending on the literacy contexts they are exposed to. Therefore, teachers should organise mobile reading instruction in a way that all learners' individual needs and interests are catered for.
- Teachers are encouraged to continue to nourish and nurture the reader identity of the adolescent learners by providing challenging and engaging reading texts which suit the interests of the learners.
- It is recommended that teachers promote leisure reading amongst fifty-fifty readers through extrinsic motivation. Reading promotion strategies like reading rewards competitions, visiting book fairs and online conversations with authors can be applied amongst the learners to stimulate leisure reading interest.
- It is recommended that teachers avoid as far as possible, openly assigning restrictive labels and classifying learners into preconceived reader categories such as reader, fifty-fifty and non-reader. Rather, teachers should be sensitive and conscious of the different reading ability levels of learners under their care and recommend leisure reading tasks that suit the learner's reading ability and interests.

- It is the strong conviction of this study that teachers should provide ample reading opportunities for learner using all forms of reading media (physical and mobile books) which will allow learners to self-define and independently create their own reading identity.
- It is recommended that reading experts use public information platforms like newspapers, magazines, radio programmes, blogs, television and parenting seminars, to raise awareness on mobile reading by educating parents the critical role family literacy practices play in nurturing the reading identity and literacy practices of adolescent learners.
- Teachers should be aware that technologies such as MRDs, mobile books and Mobile reading applications are all forms of modern and novel innovations in reading instruction and if used correctly in the classroom, they can be very powerful tools for enhancing adolescent literacy.
- Teachers are encouraged to accept and embrace MRDs in their classrooms for reading purposes, as these are potential game changers as far as adolescent literacy practices are concerned.
- It is recommended that not only language teachers but all teachers across the school curriculum take advantage and leverage the awe factor technological gadgets like MRDs have to continually raise the curiosity of readers in order to keep them engaged in reading and learning.
- It is further suggested that teachers communicate and discuss the learning value of such technological innovations with parents at school meetings, circulars and school newsletters.
- Language teachers are advised to set reading challenges for their learners as this could spur them to read more.
- Language teachers can make use of interactive mobile books written in the form of quests and mysteries for participants to solve. These novels can be written in the form of narrative quests and the reader is often drawn into the story as the protagonist who is assigned a set task or mission to accomplish. This type of book is interactive as it engages the readers to solve problems as they read and it also affords them a chance to co-author the narrative as they go along.
- Teachers should guide and afford adolescent learners ample opportunities to read on their personal mobile devices. They should be further encouraged to develop

social reading networks through social media platforms so that they share their reading experiences and enhance the social worth of reading.

#### **6.8.4 Recommendations to school management**

The literature review and findings of the study revealed that the greatest obstacle to adolescent mobile reading in Zimbabwe was the prohibitive rules and regulations concerning the use of mobile devices in schools. At Forward in Faith College where this study was conducted, mobile phone use during school hours was completely outlawed. However, it was encouraging to note the school management connected well with the objectives of the study and the principal gave a special concession to bring and use their mobile gadgets on Fridays the day the mobile reading book club was held. It is behind the backdrop of such negative perceptions towards mobile reading that the following recommendations are made to school managers

- This study advocates that schools should set aside specific time in their timetables dedicated to leisure reading, as most fifty-fifty readers purported that they did not always find time for reading due to hectic school schedules (see section 5.6.2).
- It is further suggested schools should take full advantage and exploit the awe factor of technological devices like MRDs by leveraging mobile book features like moving animations and audio books to inspire and entice the fifty-fifty reader to read more and develop a positive reading identity.
- It is suggested that schools should facilitate and support a literacy environment that is non-restrictive and promotes self-discovery of reader identity amongst adolescent learners.
- Schools are encouraged to continue to promote adolescent literacy development through the strengthening of school-wide literacy promotion activities and the reading support systems. This can be done through allocating dedicated reading periods, in-class reading corners, school-wide book exhibitions, book exchanges and constantly updating library stock.
- It is also recommended that schools open up to innovation where reading technologies that have the potential to change the way adolescent learners read for leisure are concerned.

- Schools should take advantage of teenage learners' curiosity and fascination with technology to enhance their reading abilities by incorporating technology where possible in language classes.
- Schools should also keep track of young people's love for and desire to use technology and incorporate the use of mobile phones and tablets where possible in classrooms.
- A wide range of reading media (MRDs and physical books) and reading genres that are intellectually and emotionally stimulating to the adolescent learners should be provided in classrooms and libraries.

#### **6.8.5 Recommendations to the Ministry of Primary and Secondary education (MoPSE)**

The MoPSE was identified in the literature review and the empirical study as another very important stakeholder in the advancement of mobile reading amongst the adolescent population of Zimbabwe. The MoPSE is an important component in the literacy exosystem of the adolescent learners as the ministry formulates technological and literacy policies in education which can positively influence the mobile literacy development of the Zimbabwean adolescent personae. Such a policy framework can provide guidelines to schools and teachers as to the various approaches and strategies they can use to implement mobile reading in Zimbabwean schools. For MoPSE to plan policy conducive to promote the growth of mobile reading in Zimbabwe's secondary schools and amongst the adolescent population the following recommendations are made:

- MoPSE should engage in national mobile reading conversations with schools, teachers, book experts and mobile learning experts to promote the production and distribution of locally made and culturally relevant mobile reading materials so that learners can become mobile readers from an early stage in the national education system.
- It is advised that MoPSE creates a nation of mobile readers by creating an enabling policy environment that allows the mobile reading to thrive at all levels of the national education system.
- It is recommended that the MoPSE foster and facilitate the construction of a national mobile reader identity through various mobile book promotions and programmes aimed at creating a nation of mobile readers.

- The MoPSE should strongly consider developing reading interventions or improvement programmes that are supported by assistive technologies like MRDs to support the development of the literacy skills of the non-readers.
- It is recommended that the government of Zimbabwe through the MoPSE draft a mobile learning policy that will specifically guide schools on the use of mobile devices for learning purposes.
- It is recommended that the MoPSE in Zimbabwe should draw up a comprehensive mobile learning policy, which will guide and give direction to schools on how best they can implement mobile learning aspects like mobile reading.
- The use of technology should be encouraged by MoPSE as it has become part of people's daily lives now and in the future. Where possible, the ministry should make access to the internet for educational purposes available to schools.
- In-service training of teachers to use in ICT the classroom, especially language classroom.

#### **6.8.6 Recommendations to mobile book creators and mobile reading application creators**

It was noted that mobile book creators and mobile reading application developers like Wattpad and Worldreader could be very important stakeholders in the adolescent learner mobile reading journey. These stakeholders created engaging reading content and platforms for the adolescent participants in the study. While their role and influence in the mobile reading lives of the adolescent participants mainly occurred in the background, it is their work the learners were often in direct contact with. This study recommends and makes the following suggestions:

- It is suggested that creators of mobile books should create mobile books that have flipping pages or life-like qualities/ features to give a sense of realism and a feel of authenticity as the adolescent learners engage in mobile reading.
- This study suggests that the developers of mobile reading applications should ensure that their reading applications continually undergo a process of endless innovation, evolution and improvement to keep its reader hooked as the novelty of technological innovations tends to wear off quickly.

- It is recommended that creators of mobile books should engage users of their mobile reading applications through surveys on how best they can enhance the mobile reading experiences of their users.
- It is advised that mobile reading application developers should make it affordable for learners to access mobile reading content on their mobile devices.
- Mobile book creators and reading application developers should liaise with the MoPSE to create reading content that aligns with the national curriculum reading standards.
- Mobile reading application developers should consider developing reading applications that allow learners to download and store books so that they can read them later when there no internet connection.

## **6.9 Guidelines for actions teachers can take to help support and promote mobile reading amongst adolescent learners**

This qualitative action research study used school-based mobile reading intervention to leverage the inherent technological features of mobile gadgets to cultivate a culture of reading on mobile devices amongst a group of Zimbabwean adolescent learners. This said intervention represented a very important shift and transition in the adolescent participants' literacy practices. It was observed that the participants of this empirical study had to negotiate and navigate through several stages as they journeyed to become mobile readers. These stages include initiation, trying out mobile reading and active mobile reading. This section provides a framework for action which teachers can use as a reference guide when developing mobile literacy practices with adolescent learners in secondary school.

### **6.9.1 Initiation into mobile reading**

The first stage in the mobile reading intervention process was an initiation. In this stage, the adolescent participants were exposed to a mobile reading through an initiation event. Mobile reading initiation events are those kinds of incidents meant to raise awareness or introduce non-mobile readers to mobile reading. Some examples of mobile reading initiation events could include formal exposure or the more informal self-discovery through an exploration of mobile reading applications on an app store or browsing the internet. Other mobile reading initiation events include peer sharing of mobile reading

applications and mobile books between devices over social media platforms like whatsapp.

With this study, the participants were exposed to the Worldreader mobile reading application and mobile reading by the researcher during the mobile reading sessions at Forward in Faith Christian College. Mobile reading initiation activities included the researcher explaining the concept and how mobile reading works to the adolescent learners. Other initiation activities included sharing and installing the Worldreader mobile reading application on the participants' devices. The participants also undertook other initiation activities which included registering, creating a reader ID and logging in to read on the Worldreader mobile application.

### **6.9.2 Trying out mobile reading**

Once initiation to mobile reading was successful, the learners tried out mobile reading. The trying-out mobile reading stage involved the participants selecting and reading mobile books they found appealing to them. In this phase, the participants tried out mobile reading to see if it suited and matched their reading tastes and preferences.

During this phase, the participants evaluated the utility of mobile reading and MRDs on their literacy practices. Learners experimenting and navigating the mobile reading application and its content also characterised this phase. Throughout this stage, the participants made value judgements about mobile reading based on the novelty of MRDs, mobile reading application appeal and mobile book functionalities. It is also during this stage that the adolescent learners asserted their independence and autonomy as mobile readers. They used their curiosity and inquisitiveness to discover and use more reading applications like Wattpad.

### **6.9.3 Becoming an active mobile reader**

In this phase, the participants used their experiences to adopt MRDs as a new medium for leisure reading. Becoming active readers implied a radical transformation of the participant's literacy practices. The active use of MRDs as a reading medium involved the participants reconfiguring their literacy practices around the new reading media. New literacy practices influenced by MRDs included self-created mobile book libraries, audio book reading, non-linear reading and reading on the go. Mobile book features such as audio, visual and text capabilities and interactive features like hyperlinks promoted

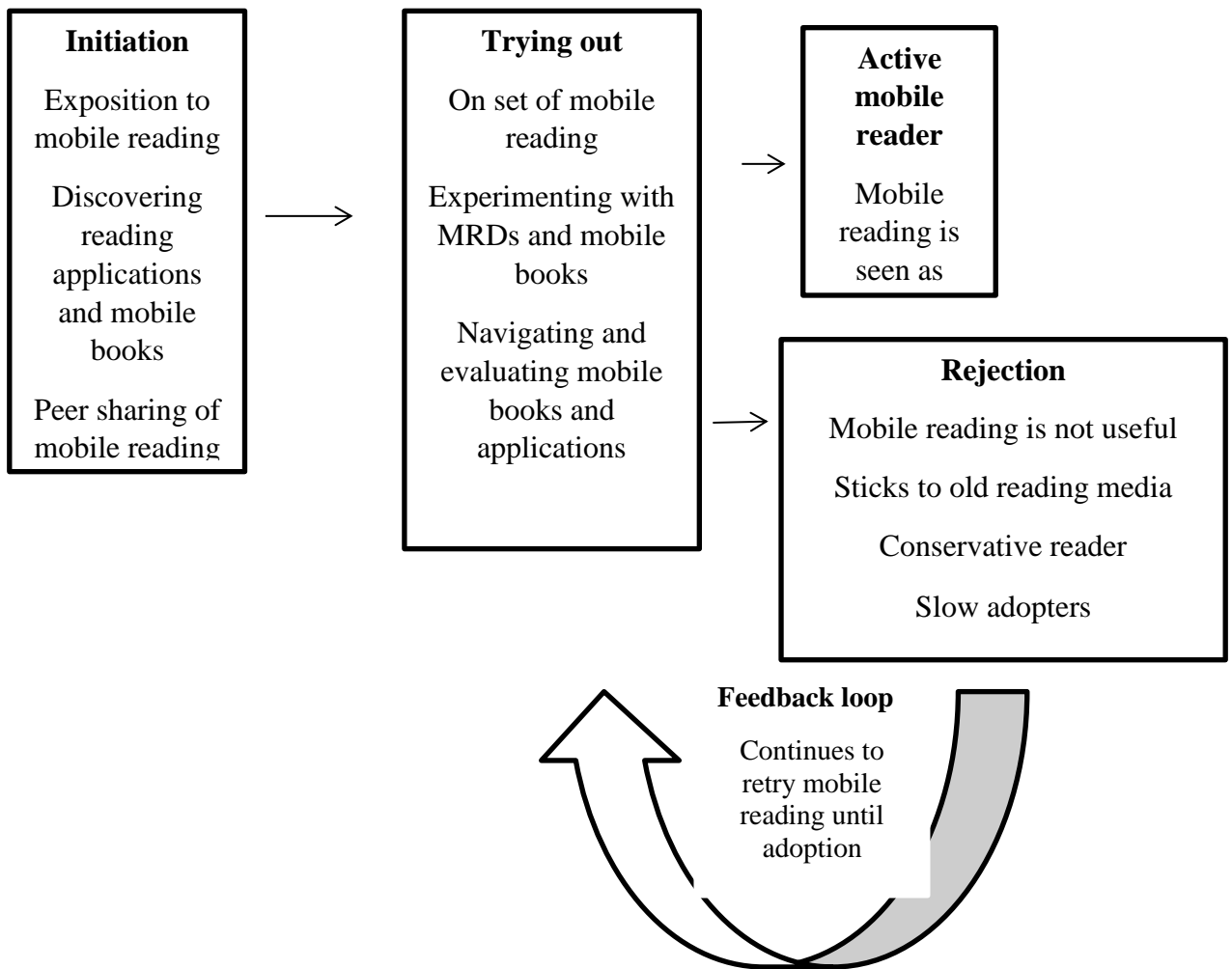


engagement amongst the adolescent learners who adopted and accepted MRDs as a reading medium.

Not all the participants accepted and adopted MRDs as a reading medium. The participants based their decision not to become active readers on mobile on the experiences they had during the trial phase. The novelty and appeal of MRDs were short-lived for some participants and did not make a lasting impression on them. A group of the adolescent learners did not adopt mobile reading because MRDs were full of distractions and offered an unnatural reading experience. These learners still preferred physical book reading. However, because of the ubiquitous nature of mobile technologies in their lives, they probably cannot continue to ignore mobile reading and they will retry it. This cycle is likely to continue until the perceived flaws of MRDs and mobile books are improved and the learner gradually accepts and becomes a mobile reader. Other factors also militated against mobile reading adoption, acceptance and use by adolescent learners such as school rules and sanctions and negative parental attitudes.

Based on insights gained by the researcher's actions in endeavouring to empower the adolescent participants to become mobile readers, an active mobile reader model as illustrated in figure 6.2 is proposed. The active mobile reader model was gleaned and conceptualised through the researcher's findings and experiences during the mobile reading empirical study. The model is meant to share ideas with all persons involved in the literacy instruction of adolescents on how best they can introduce or improve mobile technology use in the teaching and learning process. The model also helps to turn into reality one of the motivations behind the study which was to develop a framework to support mobile reading integration in the secondary school (see section 1.4).

**Figure 6.2: Active mobile reader model**



Designed by Bachisi (2020)

In the active mobile reader model, the process of becoming a mobile reader by adolescent learners starts with owning a personal mobile device or accessing a shared mobile device. The process starts with brief encounters of digital texts as text messages, direct messages or chats on various social media platforms. As the individual continues to explore the digital content on their mobile device, they end up discovering human interest stories which engage and attract them. As they became more engrossed in this process, the desire to engage in and read longer digital texts could pick up. During the initiation into the mobile reading phase, players in the literacy microsystem such as peers, teachers and family can also play an instrumental role in shaping the individual's mobile reading identity.

Once individuals are initiated, they will experiment and try out several reading websites, reading applications, text formats and mobile reading situations that best suit them. The

whole logic behind this process is that the individual is trying to plug into the most ideal mobile routine to support and fuel their mobile reading actions. Once the individuals are comfortable and establish a rhythm, they begin to identify themselves as mobile readers and will naturally pick up a mobile device to read as that would be their preference. By this stage, the individuals have become active mobile readers and have already established their digital library and have bookmarked the favourite reading websites and mobile reading applications.

If one rejects mobile reading, he or she is likely to try it out again because of the pervasive nature mobile devices have in the lives of adolescent learners. Inevitably, they will continually undertake mobile reading either deliberately or incidentally. These repeated actions are represented by the feedback arrow which indicates that probably due to the frequency of the action, it will lead to eventual acceptance and adoption of MRDs.

#### **6. 10 Recommendations for further study**

Using mobile devices in education in general and in the promotion of adolescent reading, in particular, is still an under-researched area. The subject is still quite contentious amongst stakeholders and draws a lot of feelings of apprehension once it brings the topic to the fore for discussion. This reaction connotes a natural human tendency that manifests when confronted with something they know very little about. Fears about the negative effects of mobile devices in teaching adolescent reading can only be allayed through further research. Further research can thus be conducted in the following areas:

- Mobile reading pedagogy with a specific focus on the different approaches, methods and techniques educators can employ to make effective use of MRDs in the teaching of reading across all levels of the curriculum and in all school phases.
- Policy-driven research, which will seek to develop a national policy for mobile learning in Zimbabwean secondary schools.
- Research on home-grown indigenous reading applications and how they can bridge the reading materials gap in both early grade and adolescent learning.
- Research on various efforts that can be undertaken to scale up mobile reading initiatives in Zimbabwe's secondary schools.
- Other research opportunities lie in the mainstreaming of mobile reading in both pre-service and in-service teacher education programmes.

- Detailed case studies in secondary schools based on user's personal experiences of engaging in mobile reading could be used for research purposes.
- Documenting narratives of efforts to pioneer mobile learning and mobile reading in Zimbabwean schools.

### **6.11 Limitations and delimitations of the study**

The following limitations and delimitations were anticipated and considered in the study:

- This study was based on small-scale mobile reading intervention, thus, this makes it difficult to generalise the findings of this study.
- The study was carried out in Harare, the capital city of Zimbabwe, which has the greatest mobile penetration rate in the country. This might not be the case for other regions in the country, especially in the rural areas where the mobile penetration rate by learners at school may be low. As a result, the BYOD model used for mobile reading in this study might not work, as not all learners might have access to a personal mobile reading device.
- This study contains a one-sided perspective as it documents and reports only the voices of a group of adolescent participants without considering the perspectives of their teachers and parents, all of whom are very important stakeholders in the learners' reading lives.
- Further research that particularly investigates mobile reading from the standpoint of teachers is strongly recommended.

### **6.12 Conclusion**

This study set out to leverage mobile technologies as a credible medium for developing positive leisure reading practices amongst a group of Zimbabwean adolescent learners. The key question in this study centred on the extent to which a group of adolescent learners was prepared to transform their mobile devices into mobile reading devices which they could use to read for leisure ahead of other competing functions found on their mobile devices. The research questions were adequately addressed and successfully answered.

Through the participants' feedback, it was adjudged that mobile reading was generally adopted and accepted by the adolescent participants as a legitimate activity that they could engage in ahead of other pleasurable functions offered on their mobile devices. It was also deduced that mobile devices could successfully affect the reading lives of adolescent

learners. The study found that MRDs reinforced already existent literacy practices while also promoting positive literacy practices amongst adolescent learners. It is clear from the study that the mobile reading initiative was successful as it managed to channel the learners' energies toward mobile reading.

It was also clear that mobile reading was more successful in informal mobile learning contexts as it was largely practised in the home than in the more formal school-based learning contexts. Zimbabwean schools do not have structures and policies to support any form of mobile learning let alone mobile reading and as such discord exists between the learners' needs and what the school can offer or is offering them. Sadly, the study also noted that there is very limited literature and practical examples of other mobile learning initiatives particularly in Zimbabwe, thus making it difficult to create a framework of mobile learning success in Zimbabwe. As such mobile learning remains a largely foreign notion in Zimbabwean educational and academic discourse until more and more research is undertaken on the subject.

For mobile learning to successfully take root in Zimbabwean schools, there is a strong need to create harmony between the learners' actions and needs and how the school can best satisfy these needs as it is becoming abundantly clear that the future of learning is virtual. It is envisaged that this study, albeit it was done on a small scale, will contribute to the widespread adoption of mobile reading amongst the adolescent populace in Zimbabwe and other countries in Africa.

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## APPENDICIES

### APPENDIX A: UNISA ETHICAL CLEARANCE CERTIFICATE



#### UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

ate: 2017/11/15

Dear Mr Bachisii

**Decision:** Ethics Approval from  
D  
2017/11/15 to 2022/11/15

Ref: **2017/11/15/34560556/44/MC**

Name: Mr I Bachisii

Student: 34560556

#### Researcher:

Name: Mr I Bachisii

Email: 34560556@mylife.unisa.ac.za

Telephone: +263 773 195 508

#### Supervisor:

Name: Prof AJ Hugo

Email: annajohugo@gmail.com

Telephone: +27 82 738 5299

#### Title of research:

**The impact of mobile reading devices on the reading habits of a group of adolescent learners in Zimbabwe**

**Qualification:** D ED in Curriculum Studies

Thank you for the application for research ethics clearance by the UNISA College of Education Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period 2017/11/15 to 2022/11/15.

*The **low risk** application was reviewed by the Ethics Review Committee on 2017/11/15 in compliance with the UNISA Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.*

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the UNISA College of Education Ethics Review Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
7. No field work activities may continue after the expiry date 2022/11/15. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

*Note:*

*The reference number **2017/11/15/34560556/44/MC** should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Kind regards,



**Dr M Claassens**  
**CHAIRPERSON: CEDU RERC**  
 mcdtc@netactive.co.za



**Prof V McKay**  
**EXECUTIVE DEAN**  
**UNISA**  
**College of Education**  
 2017 -11- 22  
 Office of the Executive Dean  
 University of South Africa  
 Pretorius Street, Muckleneuk Ridge, City of Tshwane

**APPENDIX B: APPROVAL WORLDREADER MOBILE**

**Perisa Raznatovic** <perisa@worldreader.org>

Mon, Feb 5,  
2018, 7:49 PM

to me

Dear Ivan,

Thank you for your interest in Worldreader. The research project you will be working on sounds fascinating and I would like to learn more about it.

Our app is free to use and we would be more than happy to hear what you have learnt during the period of using it as a reading and learning aid. Let me know in case you require any additional information regarding Worldreader.

I look forward to the findings of your study.

Best of luck,

Periša

--

**Periša Ražnatović**

Program Director, Lifelong Reading

Worldreader | [www.worldreader.org](http://www.worldreader.org)

## **APPENDIX C: WORLD READER REQUEST LETTER**

Request for permission to conduct research using the Worldreader mobile reading application.

**Title of study: The impact of mobile reading devices on the reading habits of a group of adolescent learners in Zimbabwe.**

**30 January 2018**

The Mobile Projects Manager

Worldreader

Fundación Worldreader.org

Mallorca 318, 3º 1ª

08037 Barcelona

SPAIN

+34 615 851414

Dear , Persia Raznatovic

I, Ivan Bachisi am doing research under the supervision of Professor A.J. Hugo, a professor in the Department of Curriculum Studies towards a D Ed degree at the University of South Africa. We have funding from the department of student funding at UNISA for covering costs of research essentials. We are inviting you to participate in a study entitled:

**The impact of mobile reading devices on the reading habits of a group of adolescent learners in Zimbabwe.**

The aim of the study is to explore ways in which mobile reading devices such as mobile phones and tablets can be used to sustain and promote a lifelong culture of reading for leisure among a group of adolescent learners in Zimbabwe.

Your institution has been selected because they are the creators of the mobile reading application the researcher intends to use for this study.

The study will entail a school-based mobile reading intervention, where a group of adolescent learners will be introduced to the Worldreader mobile reading application. The Worldreader mobile reading application is ideal as it is a free application that gives learners access to thousands of fiction and non-fiction e-books which they can read during their spare time. The



application also includes stories from all over the world that are appropriate to the context and age of the participants. The participants of the study will be interviewed on their reading practices and they will also be expected to maintain and record their mobile reading experiences in a journal.

The benefits of this study are that it will assist in gaining an in-depth understanding and insight into how mobile devices like phones and tablets can be deployed in secondary schools in Zimbabwe for the optimum gain of the learners. This understanding will go a long way in assisting Worldreader to expand its reach within the Zimbabwean populace. The study will also provide feedback to Worldreader concerning their mobile reading application, particularly from a Zimbabwean adolescent perspective. The study also provides empirical evidence that can be used to demystify the use of mobile devices in reading literacy development and education.

There are no envisaged potential risks in participating in the study. There will be no reimbursement or any incentives for participation in the research.

Feedback procedure will entail the submission of a PDF softcopy version of the final research report to Worldreader.

Yours sincerely

---

Ivan Bachisi

[34560556@mylife.unisa.ac.za](mailto:34560556@mylife.unisa.ac.za)

+263 773195508

D Ed candidate (UNISA)

**APPENDIX D: FORWARD IN FAITH CHRISTIAN COLLEGE APPROVAL LETTER**



***FORWARD IN FAITH CHRISTIAN COLLEGE***



**TELEPHONE:** 0779 133 388 / 0712 790 562  
0772 684 963  
04-2916176

**Physical Address**  
**Stand Number 18836**  
**Belvedere**  
**Harare**

**Website:** [www.forwardinfaithcollege.ac.zw](http://www.forwardinfaithcollege.ac.zw)  
**Email address:** [admin@forwardinfaithcollege.ac.zw](mailto:admin@forwardinfaithcollege.ac.zw)  
[principal@forwardinfaithcollege.ac.zw](mailto:principal@forwardinfaithcollege.ac.zw)

**Date: 30 January 2018**

Mr. Bachisi Ivan  
Dear Sir

**RE: PERMISSION TO CONDUCT A RESEARCH AT THIS SCHOOL.**

The above matter refers.

I acknowledge receipt of your letter dated 2 January 2018 from UNISA requesting permission to conduct research at this school.

Be advised that permission has been granted to work with 20 students for 12 weeks, seeing them once per week in the afternoons of identified days. You have permission to install information on their mobile phones and tablets and also to monitor progress in their usage.

For any other conduct with the students outside the stipulated times, you will need to have permission from the school administration.

I wish you a fruitful study and research. Wishing you all the best.

**Ronald Munhenzva**  
**[Principal]**

**APPENDIX E: FORWARD IN FAITH CHRISTIAN COLLEGE PRINCIPAL'S  
REQUEST LETTER**

**Request for permission to conduct research at Forward in Faith Christian College.**

**Title of study: The impact of mobile reading devices on the reading habits of a group of adolescent learners in Zimbabwe.**

2 January 2018

The Principal

Forward in Faith Christian College

Stand Number 18836

Belvedere

Harare

Zimbabwe

+263 779133388.

Dear Mr R Munhenzva,

I, Ivan Bachisi am doing research under the supervision of Professor A.J. Hugo, a professor in the Department of Curriculum Studies towards a D Ed degree at the University of South Africa. We have funding from the department of student funding at UNISA for covering the cost of research essentials. We are inviting you to participate in a study entitled: The impact of mobile reading devices on the reading habits of a group of adolescent learners in Zimbabwe.

The study aims to explore ways in which mobile reading devices such as mobile phones and tablets can be used to sustain and promote a lifelong culture of reading for leisure among a group of adolescent learners in Zimbabwe.

Your institution has been selected because it is the researcher's place of work hence it will be easy to gain access.

The study will entail a school-based mobile reading intervention, where a group of adolescent learners will be introduced to the Worldreader mobile reading application. The Worldreader mobile reading application is a free application that gives learners access to thousands of fiction and non-fiction books that they can read during their spare time. The participants of the study will be interviewed on their reading practices and they will also be expected to maintain and record their mobile reading experiences in a journal.

The benefits of this study are that it will assist in gaining an in-depth understanding and insight of how mobile devices like phones and tablets can be deployed at Forward in Faith Christian College for the optimum gain of the learners at the school. This understanding will go a long way in assisting the school in crafting a mobile learning policy. The study also provides empirical evidence that can be used to demystify the use of mobile devices in education.

There are no envisaged potential risks for the participants of the study.

There will be no reimbursement or any incentives for participation in the research.

Feedback procedure will entail submission of a softcopy and spiral bound copy of the final research report to the school management committee.

Yours sincerely

---

Ivan Bachisi

[34560556@mylife.unisa.ac.za](mailto:34560556@mylife.unisa.ac.za)

+263 773195508

D Ed candidate (UNISA)

**APPENDIX F: PARENTAL CONSENT LETTER**  
**LETTER REQUESTING PARENTAL CONSENT FOR MINORS TO PARTICIPATE**  
**IN A RESEARCH PROJECT**

**30 January 2018**

Dear Parent/Guardian

Your son/daughter/ward \_\_\_\_\_ who is a learner at Forward in Faith Christian College, is invited to participate in a study entitled, The impact of mobile reading devices on the reading habits of a group of adolescent learners in Zimbabwe.

I am undertaking this study as part of my doctoral research at the University of South Africa. The purpose of the study is to explore ways in which mobile reading devices such as mobile phones and tablets can be used to sustain and promote a lifelong culture of reading for leisure among a group of adolescent learners in Zimbabwe. The possible benefits of the study are the improvement of reading ability and reading habits of the participants. I am asking permission to include your child in this study because your child matches the participant profile designed for the study. I expect to have nineteen other children participating in the study.

If you allow your child to participate, I shall request him/her to:

- Be part of a mobile reading club to be held at Forward in Faith Christian College once a week.
- Carry a mobile device (table or cellphone) to school once a week.
- Take part in a face to face interview with the researcher at Forward in Faith Christian College.
- Take part in a task-based focus group interview, where they will be expected to write a letter to a friend explaining their mobile reading experiences at the end of the study.
- Keep a mobile reading diary where they will record their daily mobile reading activities.

I further ask for permission to record your son/daughter/ ward during their participation in the face to face and focus group interviews

Any information that is obtained in connection with this study and can be identified with your child will remain confidential and will only be disclosed with your permission. His/her responses will not be linked to his/her name or your name or the school's name in any written or verbal report based on this study. Such a report will be used for research purposes only.

There are no foreseeable risks to your child by participating in the study. Your child will receive no direct benefit from participating in the study; however, the possible benefits to education are increased access to a wide range of reading material. Neither your child nor you will receive any type of payment for participating in this study.

Your child's participation in this study is voluntary. Your child may decline to participate or withdraw from participation at any time. Withdrawal or refusal to participate will not affect him/her in any way. Similarly, you can agree to allow your child to be in the study now and change your mind later without any penalty.

The study will take place during afternoon sport and club activities and during learners' free time, with the prior approval of the school and your child's Principal.

In addition to your permission, your child must agree to participate in the study and you and your child will also be asked to sign the assent form which accompanies this letter. If your child does not wish to participate in the study, he or she will not be included and there will be no penalty. The information gathered from the study and your child's participation in the study will be stored securely on a password locked computer in my locked office for five years after the study. Thereafter, records will be erased.

The benefits of this study are improved access to reading material for the learner. No potential risks will be involved in the learners' participation in the study. There will be no reimbursement or any incentives for participation in the research.

If you have questions about this study please ask me or my study supervisor, Professor AJ Hugo, Department of Curriculum Studies, College of Education, University of South Africa. My contact number is +263 773 195 508 and my e-mail is [34560556@mylife.unisa.ac.za](mailto:34560556@mylife.unisa.ac.za). The e-mail of my supervisor is [ajhugo@gmail.com](mailto:ajhugo@gmail.com). Permission for the study has already been given

by the Forward in Faith Christian College management and the Ethics Committee of the College of Education, UNISA.

You are making a decision about allowing your child to participate in this study. Your signature below indicates that you have read the information provided above and have decided to allow him or her to participate in the study. You may keep a copy of this letter.

Name of child:

Sincerely

\_\_\_\_\_

Parent/guardian's name (print)

Parent/guardian's signature:

Date:

\_\_\_\_\_

Researcher's name (print)

Researcher's signature

Date:

## **APPENDIX G: PARTICIPANT INFORMATION LETTER**

**30 January 2018**

**Title: The impact of mobile reading devices on the reading habits of a group of adolescent learners in Zimbabwe.**

### **DEAR PROSPECTIVE PARTICIPANT**

My name is Ivan Bachisi and I am doing research under the supervision of Professor AJ Hugo, a Professor in the Department of Curriculum studies towards a D Ed degree at the University of South Africa. We have funding from the department of student funding at UNISA for covering essential research costs. We are inviting you to participate in a study entitled: The impact of mobile reading devices on the reading habits of a group of adolescent learners in Zimbabwe.

### **WHAT IS THE PURPOSE OF THE STUDY?**

This study is expected to collect important information that could shed more light on how mobile reading devices such as mobile phones and tablets can be used to sustain and promote a lifelong culture of reading for leisure among a group of adolescent learners in Zimbabwe.

Your participation in this study will go a long way in contributing to the understanding of how mobile devices can be best used to support learning in Zimbabwean schools. You will also have access to a wide range of fiction and non-fiction reading materials during and after the study.

### **WHY AM I BEING INVITED TO PARTICIPATE?**

You are invited to participate because you are a learner at the school where the research is being conducted. You are also being invited to participate in this study as your age and academic characteristics adequately suit the participant profile for this study.

I obtained your contact details from the school records kept by the Principal of Cristal College. Approximately twenty number participants are expected to participate in this study.

### **WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?**



The study involves participation in a mobile reading book club for a total period of twelve weeks (one school term). During this period you will participate in a twenty-minute semi-structured face-to-face interview with the researcher. The goal of the interview is meant to establish your reading habits both inside and outside of school. You will also maintain a mobile reading diary in which you will record your daily mobile reading activities during the twelve weeks of the study. Lastly, you will be expected weekly mobile reading sessions meant to support you during the term. In the last session of the mobile reading club, you will be expected to write a letter to a friend sharing your mobile reading experiences with them.

### **CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?**

Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written assent form. You are free to withdraw at any time and without giving a reason.

### **ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?**

There are no foreseeable negative consequences that may arise from your participation in this study. However, remember that you will have to sacrifice an extra bit of your time in attending the weekly sessions and completing the mobile reading diaries daily.

### **WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?**

You have the right to insist that your name will not be recorded anywhere and that no one, apart from the researcher and identified members of the research team, will know about your involvement in this research. Your name will not be recorded anywhere and no one will be able to connect you to the answers you give. Your answers will be given a code number or a pseudonym and you will be referred to in this way in the data, any publications, or other research reporting methods such as conference proceedings.

While every effort will be made by the researcher to ensure that you will not be connected to the information that you share during the focus group, I cannot guarantee that other participants in the focus group will treat the information confidentially. I shall, however, encourage all

participants to do so. For this reason, I advise you not to disclose personally sensitive information in the focus group.

A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

### **HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?**

Hard copies of your answers will be stored by the researcher for a period of five years in a locked filing cabinet 2417 Mapereke Road, New Marlborough, Harare, Zimbabwe for future research or academic purposes; electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. At the end of the five year period all hard copies of your answers will be shredded and electronic information will be deleted from the computer.

### **WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?**

You will not receive any payment or reward, financial or otherwise for participating in this study.

### **HAS THE STUDY RECEIVED ETHICS APPROVAL**

This study has received written approval from the Research Ethics Review Committee of the College of Education at, Unisa. A copy of the approval letter can be obtained from the researcher if you so wish.

### **HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?**

If you would like to be informed of the final research findings, please contact Ivan Bachisi on +263 773 195 508 or email [34560556@mylife.unisa.ac.za](mailto:34560556@mylife.unisa.ac.za).

Should you have concerns about the way in which the research has been conducted, you may contact Professor AJ Hugo on [annajohugo@gmail.com](mailto:annajohugo@gmail.com).

Thank you for taking time to read this information sheet and for participating in this study.

Thank you.

---

Ivan Bachisi

[34560556@mylife.unisa.ac.za](mailto:34560556@mylife.unisa.ac.za)

+263 773195508

**APPENDIX H: PARTICIPANT INFORMED CONSENT LETTER**

**RE: Research project informed consent Title of project: The impact of mobile reading devices on the reading habits of a group of adolescent learners in Zimbabwe.**

Ivan Bachisi of UNISA (+263 773 195 508) is conducting research on the above topic.

The aim of the study is to explore the connection(s) between handheld mobile reading devices, such as cell phones and tablets and the development of reading habits among Zimbabwean adolescent learners.

If you agree to participate in this study, you will be asked to keep a mobile reading diary and be part of a focus group interview with other students to discuss your reading habits. The focus groups will be audio-recorded. These recordings and the notes I take during the interview will be used as information for the project.

Your participation in this research is voluntary and you can withdraw at any time. You do not have to give a reason for withdrawing from the research and there will be no negative consequences if you decide to withdraw. Before the final report for the project is prepared, I will avail to you a summary of what I have written about the surveys and interviews and will ask you to comment on any descriptions or interpretations that you believe are inaccurate or mistaken.

When I report on the research, I will ensure that you are not identified. No reference to personal names will be used. I am the only person who will have access to the data collected for the project. Any data I use in reports or publications will be for illustration only. If you wish to have a copy of the final report sent to you, I will arrange for this to be done.

**Participant consent.**

I agree to participate in this research.

Signed:.....

Date: .....

**Parental consent**

I..... ID number.....being parent or legal guardian of..... do hereby consent to his/her participation in this study.

Signed..... Date.....

The ethical aspects of this study have been approved by the UNISA Ethics Review Committee (Human Research). If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Research Ethics Officer (Telephone: Fax: Email). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

Name of researcher: .....

Date: .....

## **APPENDIX I: RESPONSIBLE AND SAFE USE OF MOBILE DEVICES IN THE SCHOOL COURSE**

### **Responsible and safe use of mobile devices in the school**

This course is designed to make you aware of the responsibilities associated with the efficient, ethical and lawful use of mobile technologies within the school.

#### **1.0 Introduction**

Mobile devices are changing the way we learn. Mobile devices are everywhere and they are impacting what, where, how and why we learn, and who we learn from.

#### **2.0 Mobile devices, technological tools and resources for learning in the twenty-first century.**

##### **2.1 What is an educational mobile device?**

Educational mobile devices are devices loaded with specific educational software (applications) and content, an operating system specifically designed for learners and the device is specifically labelled as an educational device eg the Classpad in India.

##### **Checkpoint Activities – Complete Activities 2.2 – 2.4**

##### **2.2 Differentiating between educational mobile device and personal mobile device.**

<b>Educational Mobile Devices</b>	<b>Personal Mobile Devices</b>

### 2.3 Why do we use mobile devices in school?

- i. ....
- ii. ....
- iii. ....
- iv. ....
- v. ....

### 2.4 Advantages and disadvantages of mobile devices in the school

Advantages	Disadvantages

### 3.0 Mobile device ownership in the school.

There are two models of mobile device ownership commonly used in schools and these are, Bring your own device model (BYOD) and the shared or leased devices model.

- BYOD

Teachers and learners can bring in and use their tablets and smartphones in school.

- Shared or leased devices

School buys a set of devices to be shared among pupils.

### 4.0 Roles and responsibilities when using mobile devices in the school.

#### 4.1 Parent's/Guardians role

- Buys you the mobile device.
- Talks to the learner about the rules that should be followed when using mobile devices.
- Monitors content on learner's mobile device for appropriateness and safety.

- Supervises and monitors the use of the mobile device at home.
- Encourages and educates learners to practise respectful communication at all times.
- Negotiate with the school and learners the terms and conditions of an acceptable mobile device use agreement for the school.

#### **4.2 School's role**

- To provide internet access for all academic activities.
- To ensure the cyber and physical safety and wellbeing of all learners.
- Monitor and regulate the use of mobile devices within the school and amongst learners.
- Provide internet blocking for inappropriate content or websites.
- Equip teachers with the necessary skills and knowledge which they can use to assist learners in the best practice of mobile device use.
- Ensuring compliance with the mobile device use agreement.
- Negotiate with the parents and learners the terms and conditions of an acceptable mobile device use agreement for the school.

#### **4.3 Learner's role**

- Use mobile devices in a safe and ethically responsible manner.
- Negotiate with the parents and the school terms and conditions of an acceptable mobile device use agreement for the school.
- Obeying general school rules concerning behaviour and communication which apply to all mobile devices.
- Using all technology resources in an appropriate mannerAppropriately using all technology resources so as to not damage them.
- Monitoring all activity on their account(s) and taking the necessary and appropriate steps to protect their privacy.
- Students should always turn off and secure their devices after they are done working to protect their work and information.
- Return their Mobile Device to the school at the end of the lease.



- Ensure that their personal information is protected at all times. This includes usernames, PINs and passwords.

## **5.0 Using mobile devices responsibly in the school**

### 5.1 Does and don'ts when using mobile devices in the school

#### **Does**

- **Explore**

Do not be afraid to use your mobile device to research, choose and use the information and/or investigate and solve learning problems.

- **Express**

Do use your mobile device to demonstrate your knowledge and understanding practically and creatively, through a variety of media.

- **Exchange**

Do use your mobile device to share and develop ideas with your peers.

- **Evaluate**

Do use your mobile device to document and evaluate the processes that you have gone through to achieve a particular goal or task during your learning.

- **Exhibit**

Do use your mobile device to share and showcase their work.

#### **Do not**

- Illegally install or transmit Illegal installation copyrighted materials (piracy).
- Send, access, upload, download, or distribute offensive, profane, threatening, pornographic obscene, or sexually explicit materials
- Play games during instructional times.
- Use internet/computer games deemed inappropriate by the class teacher or parents.
- Send mass or inappropriate emails (spam).
- Gain access to other student's accounts, files, and/or data

- Use the school's internet/E-mail accounts for illegal activities.
- Send anonymous or false communications or messages.
- Do not give out personal information, for any reason, over the Internet.
- Transmit or access materials that are obscene, offensive, threatening or otherwise intended to harass or demean recipients.

## **6.0 Cyber safety and security**

When we access the internet we expose ourselves to several risks. The following are simple tips to help you remain **cybersafe** and **cybersmart**.

- Only visit websites that support your learning activities.
- Always be **cybersafe** and **cybersmart** when using the internet.
- Always use appropriate language and content when using your Mobile Device and other equipment with regard to other people.
- If you should receive an email containing inappropriate or abusive language or if the subject matter is questionable, print a copy and turn it in to your class teacher.
- Always use the Mobile Device lawfully.
- For security reasons, do not share account names and passwords with anyone unless requested by staff or parents for monitoring purposes only.
- You are responsible for the physical security and use of the Mobile Device. Ensure that your Mobile Device is in a safe place at all times.

## **7.0 Conclusion**

Remember mobile learning and mobile reading can only be successful in schools if we the learners use our mobile devices responsibly.

**END**

## **APPENDIX J: LITERACY PRACTICES INTERVIEW SCHEDULE**

### **Literacy Practices interview guide for adolescent learners**

The following research questions of the study are addressed by this instrument;

1. What are the current reading practices and habits of adolescent learners in Zimbabwe?
2. What are the current attitudes and perceptions of adolescent learners in Zimbabwe towards reading for pleasure and self-enrichment?

The following set of questions aim- To identify varying levels of reading engagement among the different adolescent learners in the group:

1. Below is a list of different reading materials, from the list of reading materials given below which one would you choose to read first?

(Short stories, poems, folktales, novels newspapers, TV guides, sports reports, magazines, family letters/emails, textbooks and official letters).

- a. What made you pick X first?
  - b. Have you read that before this, or did you just think you might like to read it?
  - c. When was the last time you read it?
  - d. (follow up question on the length of the reading interval will depend on the response given by the interviewee).
2. If there are other things you most like to read that aren't on the list, please tell me about them.
    - a. What sorts of material are you best at reading?
    - b. Why do you read these things?
    - c. Where do you get the things you read?
    - d. Do other learners you know also read these?
    - e. Do people older than you read these things?
    - f. How do you find these materials?
    - g. Where do you reading (At home / at school give specific location)?
    - h. Do you ever read with other people? What kinds of people?

(e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives).

These questions seek to identify specific reasons for reading.

3. How often do you read for leisure?
4. Can you give me an example [e.g., title] of one of the things that you read for leisure?
5. Why do you find it fun to read [the title of text named by the interviewee]?

These questions begin to identify social networks in which reading and writing occur and to document how those networks mediate the reading practices.

6. How many books would you say you have in your house?
7. Do you read things together with your family members? (e.g. short stories, folktales, newspapers, TV guide, sports reports, magazines, family letters/emails, textbooks and official letters)
8. How often do you go to the local library to borrow books or reading materials? With whom?
9. Do your friends have books that they share with you? What are they?
10. Do you share books with your friends? Which ones?

To begin to document intersections between print and mobile reading practices:

11. What kinds of activities do you like to use your device for? (texting, whatsapp messaging, gaming, calling, listening to music, reading, taking pictures, recording videos, browsing the internet)
12. Do you use the internet (www) to read information about your favourite actors/heroines/ heroes/sporting stars/singers/bands/musicians?
13. Are there things you see and hear about on television that you then go and read more about those things on the internet or in books?
14. Do you ever buy/borrow books or magazines about your favourite films or performers?
15. Have you ever done fan-fiction writing online or with friends on paper?
16. Do you consider yourself a reader?
17. Do your family members see you as someone who likes reading?

18. When you get gifts and presents from family members, do they often give you books that suit your interests?

19. When was the last time that a member of your family bought you a book?

20. How often do you use your mobile phone to read?

**APPENDIX K: SUMMARY OF PARTICIPANTS' LITERACY PRACTICES INTERVIEW RESPONSES.**

**Literacy practices interview question 1.**

1. Below is a list of different reading materials, from the list of reading materials given below which one would you choose to read first?

(Short stories, poems, folktales, novels newspapers, TV guides, sports reports, magazines, family letters/emails, textbooks and official letters).

a. What made you pick X first?

b. Have you read that before this, or did you just think you might like to read it?

c. When was the last time you read it?

d. (follow up question on the length of the reading interval will depend on the response given by the interviewee.)

**Table 1:** Responses to literacy practices interview question 1

Participant Number	Preferred reading material	Reason for preference	Have you actually read or would like to read	Length, interval and reading frequency
1	Short stories	I Can't read very long stories	I've read one	Two or three times a week
2	Sports Magazines	Because I do sports	A soccer magazine	Last read it last year. (2 months ago)
3	Short stories and Poems	I used to write poems. My mom used to buy me short stories and she used to tell me when I was little	Short story entitled <i>the Birds fly.</i>	1 month ago
4	Novels	I love the way they talk about different stories and things	I've read quite a number of novels	Yesterday- <i>Of Once She Dreamed</i>
5	Novels	They are to my interests.	I've read novels currently reading <i>Diary of a Wimpy Kid.</i>	Last week
6	Novels and magazines	They are interesting	I've read novels- John Grisham	Last year
7.	Novels	Novels have interesting stories	I've read one before- <i>The last battle</i>	Two weeks ago
8	Magazines	Magazines have sections On everything. They give exposure.	I've read many magazines. People Magazine	Yesterday
9	Short stories	They make reading easier	I think I might want to read it.	N/A
10	Short stories	You can easily act it out	I've read one and I'm still reading one.	Currently reading.

		You don't have to spend much time reading it.		
11	Novels	They help you improve your vocabulary fast by learning a lot of new words.	I actually have read it.	I last read yesterday.
12	Folktales	They provide a basis for language and self- moral. They sharpen my mind and increase my concentration therefore also increasing my vocabulary and height of my intellect.	I have read folktales before this.	Three days ago.
13	Magazines	I love illustrations from the magazine because they give me a picture of what I want to read.	I just think I might want to read it	A fortnight ago.
14	Novels	I love reading books like novels that take long to finish.	I have actually read novels before and I am interested in them.	One day ago
15	I would choose to read a novel first.	It's the one I usually read	I have read it	Last weekend
16	Poems	Poems are more interesting and have a deeper meaning and valuable life lessons.	I have read one	A fortnight ago
17	Short stories	They take a small amount of time to read. I can read a lot at once. I also like them as they quickly get to the point of reducing suspension.	Yes I have	Yesterday
18	Short stories	Easy to read and are not too long.	I actually read them a lot	Today
19	Novels	I picked novels first because I find them very interesting to read.	Yes I have read	1 day ago.
20	Novels	I love reading novels because they are very interesting	I did read that before this.	A week ago
21	Novels	I believe that most teenage girls especially love reading novels.	I have read it	Today
22	I would read folktales first.	I would pick folktales first because I like suspense and to be entertained and it also updates my vocabulary	I have actually read them before.	The last time I read was a few weeks ago.
23	Short stories	They are short and therefore cut to the chase, usually are really funny and require me to think deep and expand the story in my way.	I have read them before	during the school holidays

## Literacy practices interview Question 2

2. If there are other things you most like to read that aren't on the list, please tell me about them.

a. What sorts of material are you best at reading?

b. Why do you read these things?

c. Where do you get the things you read?

d. Do other learners you know also read these?

e. Do people older than you read these things?

f. How do you find these materials?

g. Where do you reading (At home / at school give specific location)?

h. Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)

Table 2: Responses to literacy practices interview question 2

<b>Participant 1</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	I really like reading comic... comic books
a) What sorts of material are you best at reading?	Short stories
b) Why do you read these things?	I think it improves my English. Ever since I started reading short stories I've noticed that I've improved in my English.
c) Where do you get the things you read?	
d) Do other learners you know also read these?	I have a friend who reads short stories a lot.
e) Do people older than you read these things?	Only at home. My brother reads my parents short stories.
f) How do you find these materials?	I think they are quite good.
g) Where do you reading (At home / at school give specific location)?	Mostly at home.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe	No



relationships, types of people such as friends, siblings, relatives.)	
<b>Participant 2</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	My Bible
a) What sorts of material are you best at reading?	Bible
b) Why do you read these things?	Because I love my God
c) Where do you get the things you read?	From home – some from the internet and some from the shop.
d) Do other learners you know also read these?	
e) Do people older than you read these things?	No
f) How do you find these materials?	I find them interesting.
g) Where do you reading (At home / at school give specific location)?	In my room.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	No
<b>Participant 3</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	Novels
a) What sorts of material are you best at reading?	novels
b) Why do you read these things?	
c) Where do you get the things you read?	
d) Do other learners you know also read these?	Yah. Actually the novels I used to read in primary, my friend named ..... she is the one who bought them for me. She is the one, who told me that these novels are actually very interesting. So now I gave those novels to my younger sister she is in grade five and she loves them as well and she shares them with her friends at school.
e) Do people older than you read these things?	No, since they are usually based on teenage life and child life I've never shared them with older people.
f) How do you find these materials?	

g) Where do you reading (At home / at school give specific location)?	In my room usually, I'm alone so it was better.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	No, I'm always alone.
<b>Participant 4</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	Nothing
a) What sorts of material are you best at reading?	N/a
b) Why do you read these things?	N/a
c) Where do you get the things you read?	I get them from bookstores my parents buy them for me.
d) Do other learners you know also read these?	I'm not sure.
e) Do people older than you read these things?	It's only my grandparents.
f) How do you find these materials?	I find them interesting.
g) Where do you reading (At home / at school give specific location)?	I read at home like in the quietest place which is probably our basement  I get less distracted.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	No
<b>Participant 5</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	No
a) What sorts of material are you best at reading?	books
b) Why do you read these things?	Sometimes to learn about the outside world, sometimes to entertain myself.
c) Where do you get the things you read?	From home.
d) Do other learners you know also read these?	Yes, my sister.
e) Do people older than you read these things?	Yes.

f) How do you find these materials?	I find them interesting.
g) Where do you reading (At home / at school give specific location)?	At home in my bedroom in my bed.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	Yes with my father.
<b>Participant 6</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	Folktales but I never try to read them.
a) What sorts of material are you best at reading?	
b) Why do you read these things?	N/a
c) Where do you get the things you read?	My father sometimes comes with magazines and novels from my friends.
d) Do other learners you know also read these?	N/a
e) Do people older than you read these things?	My mom likes novels.
f) How do you find these materials?	I like them.
g) Where do you reading (At home / at school give specific location)?	I can't read at home... in class maybe even in the library
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	My friend
<b>Participant 7</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	No
a) What sorts of material are you best at reading?	I'm best at reading novels, poems only.
b) Why do you read these things?	N/a
c) Where do you get the things you read?	There is a library in town that's where I get my novels.
d) Do other learners you know also read these?	N/a.
e) Do people older than you read these things?	Yes, my sister reads.
f) How do you find these materials?	I find them interesting.

g) Where do you reading (At home / at school give specific location)?	I read in the dining at my home.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	I read with my older sister.
<b>Participant 8</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	I like newspapers though.
a) What sorts of material are you best at reading?	I usually use my phone just to listen to music whilst I'm reading a magazine.
b) Why do you read these things?	N/a
c) Where do you get the things you read?	I buy them with my pocket money.
d) Do other learners you know also read these?	I don't know anyone.
e) Do people older than you read these things?	Yes, my sisters.
f) How do you find these materials?	I find them interesting.
g) Where do you reading (At home / at school give specific location)?	Usually in the lounge at home. Cause I'll be concentrating on two things, I'll be reading and at the same time, I'll be listening to music.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	No
<b>Participant 9</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	none
a) What sorts of material are you best at reading?	I don't know
b) Why do you read these things?	no
c) Where do you get the things you read?	
d) Do other learners you know also read these?	I'm not sure.
e) Do people older than you read these things?	N/a
f) How do you find these materials?	It's boring.

g) Where do you reading (At home / at school give specific location)?	I read storybooks at home.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	Alone
<b>Participant 10</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	Plays. Cause I like dramas.
a) What sorts of material are you best at reading?	Let's say short stories.
b) Why do you read these things?	
c) Where do you get the things you read?	From the internet or by my colleagues.
d) Do other learners you know also read these?	mmm it's just me and .....X (Participant 11)..... (Name withheld)
e) Do people older than you read these things?	My sister
f) How do you find these materials?	N/A
g) Where do you reading (At home / at school give specific location)?	Ah at school typically. At home, there is too much noise cause I've got two little sisters so sometimes they disturb me that much. That's why I have to use a quiet place in the school.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	No
<b>Participant 11</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	Posters I see I just see even at school or in the streets.
a) What sorts of material are you best at reading?	I'm best at reading novels
b) Why do you read these things?	I read these because they are just fun and keep you anxious most of the time which makes me love them.
c) Where do you get the things you read?	The noels I read I get them from the school library or whatsapp.
d) Do other learners you know also read these?	Yes, other learners I know read these.
e) Do people older than you read these things?	Yes

f) How do you find these materials?	I search in groups on whatsapp to get them at school.
g) Where do you reading (At home / at school give specific location)?	Well for school novels I read at school and home, I read whatsapp novels.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	I read with my cousin sister and aunt.
<b>Participant 12</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	N/a
a) What sorts of material are you best at reading?	The material I'm best at reading is science specifically, Biology, Physics and Chemistry although there is a challenge with chemistry and biology physics is an all-rounder due to astronomy.
b) Why do you read these things?	They are interesting and I enrich myself with the knowledge I gain.
c) Where do you get the things you read?	From the physics teacher, and the library and also the internet.
d) Do other learners you know also read these?	A partial yes as very few know of this.
e) Do people older than you read these things?	Yes
f) How do you find these materials?	I find the interesting
g) Where do you reading (At home / at school give specific location)?	I read at any available location for example at home I read in my bedroom or the lounge when everyone is sleeping and at school read in the library. I may read in the library or car park while waiting to be picked up, there is no limit to where I can read.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	I mostly prefer to read alone but when I rarely read among others the specific type of student I read with is silent and takes reading seriously.
<b>Participant 13</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	The bible
a) What sorts of material are you best at reading?	Software
b) Why do you read these things?	Because I would like to learn for my enrichment mainly in my academics and in my spare time.

c) Where do you get the things you read?	Usually, I download from the internet or get the file from a local library in town.
d) Do other learners you know also read these?	Not really because I like to read alone in a quiet place.
e) Do people older than you read these things?	Yes, some enjoy reading.
f) How do you find these materials?	I find them nice to read.
g) Where do you reading (At home / at school give specific location)?	I usually read at home in my bedroom.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	Yes, I can try to read with people who are quiet for example my friends concentrate on what they are doing.
<b>Participant14</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	Other things I most like to read that are not on the list are dialogues.
a) What sorts of material are you best at reading?	I am best at reading comedy fiction books.
b) Why do you read these things?	I read these things because of the way the author writes, describes and grammars' everything with an emotional effect that makes you laugh.
c) Where do you get the things you read?	I get these novels either from my school library, my friends or online.
d) Do other learners you know also read these?	Yes, other learners I know read comedy fiction.
e) Do people older than you read these things?	Yes older people than me read humorous fiction novels.
f) How do you find these materials?	I like them
g) Where do you read (At home / at school give specific location)?	I read at home and school. At home it is either I'm reading in my room or the study room or at school, I read in the library.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	Yes, I do read with other people specifically my sister.
<b>Participant 15</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	I also like to read inspirational stories or books based on real-life events.
a) What sorts of material are you best at reading?	Stories or novels based on real-life events.

b) Why do you read these things?	Because they are interesting and realistic.
c) Where do you get the things you read?	My parents, the school library and some of my friends.
d) Do other learners you know also read these?	Yes they do
e) Do people older than you read these things?	Yes, they do.
f) How do you find these materials?	I find them enjoyable.
g) Where do you reading (At home / at school give specific location)?	At home, I read on my bed or in the dining room
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	Yes with my classmates
<b>Participant 16</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	I also most like forensic/detective/mysterious novels that leave me in suspense or novels that reflect a teenager's life.
a) What sorts of material are you best at reading?	
b) Why do you read these things?	They are interesting and very fascinating.
c) Where do you get the things you read?	From the school library or online or in class.
d) Do other learners you know also read these?	Yes but a few like them
e) Do people older than you read these things?	Yes like my sister in university and my brother.
f) How do you find these materials?	I enjoy reading them.
g) Where do you reading (At home / at school give specific location)?	Both at home in my blankets and school library.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	Yes, my parents, siblings and acquaintances.
<b>Participant 17</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	Novels
a) What sorts of material are you best at reading?	Novels especially fantastical ones.



b) Why do you read these things?	They are interesting and help me to relax and get my entire focus and attention into the book.
c) Where do you get the things you read?	From the school library or my parent's library at home.
d) Do other learners you know also read these?	Yes they do
e) Do people older than you read these things?	Yes they do
f) How do you find these materials?	I really like fantasy books.
g) Where do you reading (At home / at school give specific location)?	At home on the couch in the lounge or at the family field around the farm.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	I enjoy reading with my dad as well as my friend
<b>Participant 18</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	None
a) What sorts of material are you best at reading?	Stories and novels
b) Why do you read these things?	They are interesting and they have different sorts of endings.
c) Where do you get the things you read?	I get them from the internet and on different websites from the school library and an app called wattpad
d) Do other learners you know also read these?	Yes, other learners, I know also read them.
e) Do people older than you read these things?	Yes, some novels they do read.
f) How do you find these materials?	I find them interesting and they help improve my language and creativity skills.
g) Where do you reading (At home / at school give specific location)?	At school in the library.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	I read at times with my friends.
<b>Participant 19</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	There is nothing I do not read on the list and nothing was left on the list

a) What sorts of material are you best at reading?	I read best of all romantic comedy and thriller types of novels.
b) Why do you read these things?	I read them as part of my luxury time.
c) Where do you get the things you read?	I get the novels I read from my aunt who is a teacher.
d) Do other learners you know also read these?	No, that I'm not really sure.
e) Do people older than you read these things?	Yes people who are older than me read novels
f) How do you find these materials?	I find these materials quite fascinating but at the boring or funny depending on what it is
g) Where do you reading (At home / at school give specific location)?	I read novels both at home and at school but mostly at school because there are fewer distractions.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	Yes, I do normally read novels with my siblings who are older than me and friends if I am at school.

**Participant 20**

2. If there are other things you most like to read that aren't on the list, please tell me about them.	I also like to read the bible.
a) What sorts of material are you best at reading?	I am best at reading novels especially thriller novels
b) Why do you read these things?	I read them because they keep me in suspense.
c) Where do you get the things you read?	I get them from the school library and the bookshop.
d) Do other learners you know also read these?	Other learners I know read these too.
e) Do people older than you read these things?	People older than me also read these things.
f) How do you find these materials?	I love them.
g) Where do you reading (At home / at school give specific location)?	I read at school and home.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	I sometimes read with my mother.

**Participant 21**

2. If there are other things you most like to read that aren't on the list, please tell me about them.	I think there is nothing more I could consider on the list because everything is there.
--	---

a) What sorts of material are you best at reading?	When it comes to reading, I love materials I can read on-screen from a gadget.
b) Why do you read these things?	I read these things because it is a way of improving my English writing skills and just to keep myself preoccupied.
c) Where do you get the things you read?	I usually get these off the internet on an app called wattpad.
d) Do other learners you know also read these?	Yes, they definitely do.
e) Do people older than you read these things?	No, because it is sort of a teenage thing.
f) How do you find these materials?	I think they are nice.
g) Where do you reading (At home / at school give specific location)?	I read at home during the night when I am free.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	I prefer reading on my own without anyone disturbing me.
<b>Participant 22</b>	
2. If there are other things you most like to read that aren't on the list, please tell me about them.	School notes.
a) What sorts of material are you best at reading?	I am best at reading material in school notes.
b) Why do you read these things?	I read them to learn and to update my knowing.
c) Where do you get the things you read?	I get most of them from my teacher and some from the internet.
d) Do other learners you know also read these?	Yes other learners do read this.
e) Do people older than you read these things?	Yes people older than me do read these.
f) How do you find these materials?	interesting
g) Where do you reading (At home / at school give specific location)?	I prefer at home because it is peaceful and quiet and there are no distractions like people asking for stationery, noise from classmates etc.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	I never really read with other people.
<b>Participant 23</b>	

2. If there are other things you most like to read that aren't in the list, please tell me about them.	
a) What sorts of material are you best at reading?	Teenage stories.
b) Why do you read these things?	I read these things because I can relate to high school, work load and other experiences like bullying.
c) Where do you get the things you read?	Wattpad application
d) Do other learners you know also read these?	Yes
e) Do people older than you read these things?	Not exactly, or maybe not at all because of difference in taste.
f) How do you find these materials?	Very intriguing
g) Where do you reading (At home / at school give specific location)?	Anywhere when I have access to a novel.
h) Do you ever read with other people? What kinds of people? (e.g. Advise participant not to name people but to describe relationships, types of people such as friends, siblings, relatives.)	Nope maybe discussing but not having reading sessions. The only time we read as a group for me is in class for English literature.

### Literacy practices interview question 3

3. How often do you read just for fun?

Table 3: Responses to literacy practices interview question 3.

How often do you read just for fun?	
Participant Number	Response
1.	Just to enjoy myself? It's every day.
2.	Many times.
3.	I think every day after school I read a chapter from one of my novels, and then I go off to do homework.
4.	I read a lot of times.
5.	Everyday
6.	I read about 15 to 30 minutes... like thrice a week.
7.	About three hours per day.
8.	Almost every two hours I try to read. Two hours per day.
9.	Just once after two days or so.

10.	Let's say maybe twice per week.
11.	Well I read maybe twice a day because that's most likely the time I get a day for leisure.
12.	Quite a lot such that I might say half of my leisure time is spent reading. Quite a lot such that I might say half of my leisure time is spent reading.
13.	I usually read for maybe one hour or less.
14.	I read regularly like 3-4 hours at home and at school 1 hour for leisure
15.	Nearly every weekend
16.	Here and there when I am failing to sleep or I am bored.
17.	I try to read 3 to 5 times a week before I sleep as it relaxes me and helps me wind down with sleeping
18.	When I am free and I don't want to sit and be idle.
19.	Not often do I read for leisure especially when it is blazing hot I prefer swimming to reading inside or outside.
20.	I can't spend a day without reading a book I would rather repeat a certain book than read nothing.
21.	Almost all the time but there is a point where I read to get ideas from a story into an essay.
22.	I do not read often, mostly because I come out of school at five o'clock and I have to do my homework and revise for my tests. On weekends I have a choice. This is either to read or watch television. I choose to watch television. During the week I do not have the time to watch TV because I have a lot to do so I choose to watch television on the weekend. Once I start watching I don't stop then I end up not reading.
23.	Once a week.

### Literacy practices interview questions 4 and 5

4. Can you give me an example [e.g., title] of something that you read for fun?

5. Why do you find it fun to read [insert the text named by the participant]?

Table 4: Responses to literacy practices interview questions 4 and 5

Participant Number	4. Can you give me an example [e.g., title] of something that you read for fun?	5. Why do you find it fun to read [insert the text named by the participant]?
1.	For leisure? Mmm the comic one were the marvels whereby... <i>Spiderman Homecoming</i> .	He'll be having a long suit which he doesn't fit and then he'll be having a button on his suit whereby he presses that button and then the suit will be a complete suit which will fit him.
2.	... I've read <i>Rambo</i>	It wasn't fun... Because when I first, When I first saw the title I thought it was about the movie that I saw... when I read it, it wasn't what I saw.
3.		
4.	<i>Of Once She Dreamed</i>	It was about a small girl from a town, and she never liked her town life she always wanted to

		live in the big cities and she had a mother and sisters and one brother and her father and in their town people were mostly lodgers would get married in that town being farmers and getting married at an early age but she wanted time to go and venture around the world.
5.		
6.	I've read a magazine which was about fashion as I said.	It's interesting.
7.	<i>Chronicles of Narnia :The Last Battle.</i>	It is fun to read because I may be reading and you getting some things you didn't know. And you find the story interesting and so on.
8.		
9.	<i>Takadini</i>	It's boring... characters everything, stuff.
10.		
11.		I found it fun to read Things Fall Apart because it is a book about Nigeria so I get to know their culture more and understand their religious beliefs in case I get a scholarship and go there or my young sister or brother gets homework about Nigerian culture and also that if I meet Nigerians I get engaged in their conversations.
12.	Of all the book collections I have read I would say The Cherub and Nancy Drew books are my favourite. I have read almost every 'Nancy Drew' book that has been available to me and I have enjoyed every second of it. Although I just started reading 'The Cherub' agents books I have read about four of them.	You see these Adventures [and] mystery novels are my type of novels. They get me all excited in a way that I can't just explain.  It is fun as suspense created in the novel and the delving of the reader into the criminal's mind creates a sentimental awareness of the extent of corruption and ruin a human mind can assert.
13.	<i>Dark Diaries</i> by Renee Russell.	It is a funny, pretty amazing book.
14.	An example of a novel I have read for leisure is a book call <i>Mr and Mrs Popular</i> .	I find it fun because of the summary that was given. It has suspense, catches the reader's attention and has a drama effect.
15.	<i>The Heat of Betrayal</i> by Douglas Kennedy.	
16.	Poems I write, shona novels, English novels, textbooks and stories.	It gives me knowledge and entertains me at the same time.
17.	<i>Jane Eyre</i> I read last year but I didn't manage to finish it and a shona novel called <i>Dzasukwa Mwana asina Hembe</i> .	Jane Eyre starts in a sad way but has a happy ending of how the orphan grows up to be a well-respected woman.
18.	I read a series of Cambridge books, one of them is called <i>A Tangled Web</i> by Alan Maley.	I find it fun to read because some of the things I read help me when I travel to certain places or give me a vision of places I have never visited.
19.	I am reading a novel entitled <i>Apollyyon</i> during leisure time.	I find it interesting to read this novel because it is a brief history of the bible when the people of Egypt wanted to go to the Promised Land.
20.	I read <i>Diary of a Wimpy Kid</i> for leisure.	I find it fun to read Diary of a Wimpy Kid because it is funny and interesting and it gives

		me time to take my mind off reality and problems and picture my own world.
21.	<i>The Witness</i>	I find it fun because it has a lot of experience and little bit of romance and it has a teaching behind it that in life things are not always going to be perfect.
22.	<i>Seven habits of highly effective teenagers.</i>	I find it fun because it has little cartoons and also short and brief stories by other teenagers that help with the understanding of the book and the lessons.
23.	<i>Dark Diaries.</i>	The fact of putting yourself in the author's shoes and easily relating with the character gets me addicted to <i>Dark Diaries</i> .

### Literacy practices interview question 6

6. How many books would you say you have in your house?

Table 5: Responses to literacy practices interview question 6.

6. How many books would you say you have in your house?	
Participant Number	Response
1.	Seventy to eighty books.
2.	About one hundred and fifty.
3.	Well my personal books I've got fifteen but at my house we usually have text books so we've got about thirty text books.
4.	Well I have five novels and then the others I'm not so quite sure because there are quite a lot.
5.	Twenty two books in the whole house.
6.	Novels I had two and magazines I actually have three, but I lost them.
7.	The magazines are 150 and there are three novels.
8.	There are a lot.
9.	There are more than 200.
10.	I think about fifty.
11.	Well in our house we have two reading books.
12.	I would say hard copies of books are over twenty and soft copies of books are over fifty eight, so in total, it is over seventy eight and counting.
13.	I must say we have a lot of books may be around fifty.
14.	I would say we have around 50 books in our house
15.	About thirty to fifty.
16.	Over fifty.
17.	Seventy five approximately or more.
18.	I have about 20 books which are mine personally.
19.	We have a shelf of different types of books such as car manuals, novels, magazines and text books.
20.	I would say I have approximately twenty books that are comedy and eighty that are educational and forty thriller books.

21.	There are 20 collections of different books in the house.
22.	A lot of them in our house I can't even count.
23.	About fifteen.

### Literacy practices interview question 7

7. Do you read things together with your family members? (e.g. short stories, folktales, newspapers, TV guide, sports reports, magazines, family letters/emails, text books and official letters).

Table 6: Responses to interview question 7

<b>7. Do you read things together with your family members? (e.g. short stories, folktales, newspapers, TV guide, sports reports, magazines, family letters/emails, text books and official letters)</b>	
<b>Participant Number</b>	<b>Response</b>
1.	No I don't I read on my own.
2.	No.
3.	I used to read with my uncle cause my uncle really loves novels as well but now he is in Gweru he used to read me these stories that would tell me about the life of humans and how they would interact with their everyday environment and how the humans co-op with each other
4.	On a daily basis its newspapers and we take turns as a family to read the newspaper and then for short stories it's my mom and for the folktales it's my brother.
5.	My dad.
6.	No response
7.	Yes I read with my sister.
8.	No response
9.	Yes folktales.
10.	Just my sister.
11.	Sometimes I do read with my family.
12.	On several rare occasions we do but it quickly dissipates as everyone has errands to attend to.
13.	I usually read folktales to my little sister.
14.	Yes I do read magazines with my family members.
15.	Yes I do.
16.	Yes.



17.	Sometimes especially sports magazines.
18.	Yes we do things like newspapers and magazines.
19.	Yes I read together with my family.
20.	I do read with my family members.
21.	Yes things like the newspaper.
22.	Yes I do read with my family members.
23.	No

### Literacy practices interview question 8

8. How often do you go to the local library to borrow books or reading materials? With whom?

Table 7: Responses to interview question 8.

<b>8. How often do you go to the local library to borrow books or reading materials? With whom?</b>	
<b>Participant number</b>	<b>Response</b>
1.	I've never gone into a local library, only at school that's where I go.
2.	I've never been there.
3.	I don't go to the library cause my parent are always buying me books
4.	I don't go... basically I'm not really allowed out of the house and we already have enough books in the house
5.	Well I do, I do... It's a library at where I live.
6.	inaudible
7.	there is a library in town that is where I get my novels
8.	I don't cause we already have a library at home.
9.	I've never been
10.	I don't go.
11.	To the library I go maybe once a month with my friend.
12.	So far I haven't as I have not yet gotten permission from my parents no matter how much I ask and plead
13.	I usually go once in a while and I go with my cousin.
14.	I often borrow books from the local library after 3 weeks and I normally go with my father.
15.	Not at all, I usually borrow from the school.

16.	I do not go to the local library as I buy books with my family and borrow from school and relatives or read on a gadget.
17.	I usually go to the school library once a week but this year I have gone once.
18.	I don't go.
19.	I make sure I go to the library twice a month to borrow a book by the local library with my sisters.
20.	I never go to the local library unless I am
21.	Maybe twice a week with my sisters.
22.	I have not gone to the local library.
23.	There is no local library in our home.

### Literacy practices interview questions 9 and 10

9. Do your friends have books that they share with you? What are they?

10. Do you share books with your friends? Which ones?

Table 8: Responses to literacy practices interview questions 9 and 10

Participant Number	9. Do your friends have books that they share with you? What are they?	10. Do you share books with your friends? Which ones?
1.		Only note books not novels or those other ones
2.		
3.	No I really do not have friends that are close	I used to in primary.
4.	No	Oh sometimes
5.	No. They don't.	No
6.	Some of my old friends... they have transferred.	I do when they ask me... last year but my exercise and textbooks I actually give them.
7.		Sometimes... I think on snow white.
8.	Inaudible response	Yah magazines
9.		Yes like in Shona there was <i>pfumo reropa</i>
10.	No	Yes... William Shakespeare I think we are doing it here..... then I share with my friends.

11.	No my friends never share books with me.	I don't share books with my friends.
12.	They do have books and these are soft copy adventure books which I have developed a keen interest for.	I do share books with my friends and these are text books and some of our home library books.
13.	Yes they are usually comedy and romantic books.	Of course they are usually non-fiction books like magazines.
14.	Yes my friends have books that they share with me. The books are mostly humour, romantic and fiction.	Yes I do share books with my friends.
15.	yes for example novels	Sometimes but only with close friends or those who I trust.
16.	Yes textbooks, novels, magazines and poem books.	Yes
17.	Not really but at times I will borrow the same library book, similar to my friends' books for example Cambridge literary books.	Yes Cambridge literary novels from the school library.
18.	Yes they do books like novels.	I share novels and magazines.
19.		Yes, I do share books with my friends whom are closest to me and will be responsible with my book.
20.	My friends have comedy books and comic books that they share with me like Dark Diaries and Marvel's avengers.	
21.	Yes and mostly romance comedy books.	Yes the same ones I mentioned before and detective books that leave you in suspense.
22.	Yes they do the Dark diary of .... I've forgotten the name.	No
23.	We swap books sometimes novels.	Yes

### Literacy practices interview question 11

11. What kinds of activities do you like to use your device for? (texting, WhatsApp messaging, gaming, calling, listening to music, reading, taking pictures, recording videos, browsing the internet).

Table 9: Responses to Literacy practices interview question 11.

<b>11. What kinds of activities do you like to use your device for? (texting, WhatsApp messaging, gaming, calling, listening to music, reading, taking pictures, recording videos, browsing the internet)</b>	
<b>Participant Number</b>	<b>Response</b>
1.	I usually use Instagram and twitter and then after that I'll be listening to music that's all.
2.	Browsing the internet and WhatsApp.

3.	Like the usual like conversations like WhatsApp, social medias, like Instagram ... Sometimes I have researches for my younger sister so she is always depending on me to help her.
4.	I use my phone for reading like when we are going for travelling I download a number of books which I read and I listen to music and I also research my homework and schoolwork.
5.	Gaming.
6.	Listening to music, sometimes WhatsApp messages, I don't have books in my phone actually.
7.	For reading and for WhatsApp.
8.	Usually on WhatsApp.
9.	
10.	Internet just browsing.
11.	I like to use my phone for WhatsApp messaging and reading.
12.	I use my device for acquiring books from the internet or simply my device for reading.
13.	I love taking pictures on my device.
14.	I like using my device for reading, listening to music and WhatsApp messaging.
15.	No
16.	Reading, browsing the internet, gaming and listening to music.
17.	Texting listening to music reading, taking pictures, recording videos and browsing the internet.
18.	I like using my device for WhatsApp messaging, Instagram, calling listening to music and browsing the internet.
19.	I like to use my device for WhatsApp messaging, gaming, listening to music and browsing the internet.
20.	I like using my device for WhatsApp messaging, listening to music, taking pictures, reading and browsing the internet.
21.	I would use my device for things like calling, WhatsApp messaging, listening to music and taking pictures and it depends on the devices.
22.	I use it for browsing the internet and music mostly.
23.	Listening to music, reading, taking pictures, recording videos, browsing the internet.

### Literacy practices interview question 12 and 13

12. Do you use the internet (www) to read information about your favourite actors/heroines/ heroes/sporting stars/singers/bands/musicians?

13. Are there things you see and hear about on television that you then go and read more about those things on the internet or in books?

**Table 10: Responses to Literacy practices interview questions 12 and 13**

Participant number	12. Do you use the internet (www) to read information about your favourite actors/heroines/ heroes/sporting stars/singers/bands/musicians?	13. Are there things you see and hear about on television that you then go and read more about those things on the internet or in books?
1.	Yah I do but now these days I'm usually using it in Geography because some of the things we do geography.	Yah yes... like on the thing that... on empire the season 2 whereby he was told that Christian was arrested so I had to go on internet to find out more cause I hadn't seen the whole episode.
2.	Yes when I heard that one of my favourite wrestlers was arrested then I went to search it on the internet.	Inaudible response
3.	Yah I do almost all the time. Yah mostly about musicians since I love music so much.	Yah mostly like TV shows I do and mostly like American shows they sometimes talk about things

		I really don't understand so I usually go on the internet
4.	Sometimes once in a while.	The news, like sky news, if I see something I go read about it.
5.	Yah	Yes
6.	No	No
7.	no	no
8.	Yes I read on Kim Kardashian.	I was watching TV yesterday about the air force museum where they were talking about their helicopters used during the war. That's when I did some research.
9.	Yes	there are many I can't tell
10.	Yes ... like now there is a leakage of water from zisco that is containing chemicals so it's killing some cattle in that area.	Yes
11.	No I do not use the internet to search for any of the information.	Some of the things I hear on television I do search for them depending on what I saw as interesting.
12.	No I do not have any interest in them.	Yes there are certain things I do hear and see and then search on the internet and read up on them in books.
13.	I usually use the internet to read information about singers.	Music videos of celebrities.
14.	I use the internet to read information about my favourite actors and singers.	Yes there are things I see and hear about on the television that I then go and read more about those things on the internet or in books.
15.	No	Yes because reading is better than watching television because when you a reading you have time to think about the story and imagine what is happening in your head.
16.	Yes, I do	Yes
17.	Yes especially actors and musicians.	Yes a show called thirteen reasons why which made me read on the causes of suicide.
18.	Yes, I do.	Yes
19.	No I actually use the internet to browse on my school work, download music and games and watch youtube videos.	Yes, the things I hear and see on television I go and read more about it on the internet such as urban gossip.
20.	I use the internet to read information about my favourite actors.	I often hear latest news headlines on television and I go and read more about it.
21.	I use the internet to read information about my favourite actors and musicians.	Yes there are plenty of stories I research about.
22.	I use the internet to read information about my favourite singers.	Yes there are.
23.	I use the internet to read about actors, sporting stars, singers band and musicians.	I watch movies that are based on novels and that makes me eager to read the novel.

### Literacy practices interview question 14

14. Do you ever buy / borrow books or magazines about your favourite films or performers?

Table 11: Responses to Literacy practices interview question 14

Participant Number	Do you ever buy / borrow books or magazines about your favourite films or performers?
1.	No I never do that.
2.	Yes
3.	No... I'm not really a person of magazines.
4.	No
5.	I actually borrow I don't buy, I borrow the books I don't buy them.
6.	Inaudible response.
7.	Yes
8.	Yes.
9.	I used to buy
10.	Sporting magazine.
11.	Yes I do borrow magazines about my favourite performers.
12.	No and yes because sometimes I borrow books on my favourite on my favourite movies, though I do not have an interest in the performers except their characters in the film.
13.	No I've never done that.
14.	Yes I do buy and borrow books or magazines about my favourite films or performers.
15.	No
16.	Rarely maybe a few times in my life ever since I was born.
17.	No I don't but I read on the internet.
18.	Yes I do.
19.	No I have never bought or borrowed books about my favourite films or performers because I will be following and catching up on television or internet.
20.	I don't.
21.	I usually buy.
22.	No.
23.	Yes.

### Literacy practices interview question 16 and 17

16. Do you consider yourself as a reader?

17. Do your family members see you as someone who likes reading?

Table 11: Responses to literacy practices interview questions 16 and 17

Participant Number	Do you consider yourself a reader?	Do your family members see you as someone who likes reading?
1.	No I'm not a reader. I'm not a good reader	No...because I've been playing a lot.
2.	No	Yes
3.	Yah I do	Yah
4.	Yes	Yes
5.	Yes	Yes
6.	I do not consider myself as a reader. I have never been a good reader but I can read it's just I don't enjoy reading. I would rather someone read to me.	No

7.	I do not consider myself a reader because I hardly read	No
8.	No	No
9.	Not quite	Yes
10.	Yes	Yah
11.	Yes I consider myself as a reader.	Yes my family members see me as a reader.
12.	Yes	Yes a lot
13.	I do not like reading because I am a person who likes watching educational films and documentaries and that's where I learn my knowledge and new vocabulary.	No my family members see me as someone who loves her device.
14.	Yes I consider myself to be a reader.	Yes my family does see me as someone who likes reading.
15.	Yes	Yes
16.	For stories no but textbooks, newspapers, poems and other materials yes.	Maybe
17.	Yes I do as I often read and enjoy doing so	They see me as a person who likes reading but not so much.
18.	Yes I do	Yes they do
19.	I do consider myself as a reader.	Not really because most of the time I read on my bed and they will only notice if they enter.
20.	Yes I do consider myself as a reader.	
21.	A little bit, though	No not at all.
22.	Yes I do	Yes they do
23.	Not exactly it is my only hobby.	No

## **APPENDIX L: MOBILE READING DIARY ENTRY GUIDELINES FOR PARTICIPANTS**

Dear Participant.

The following are simple guidelines meant to assist you in completing your entries in your mobile reading journals.

You may maintain an electronic or physical journal in which you record your daily mobile reading activities for the whole duration of the study.

- Record all your daily mobile reading activities in the journal.
- In the event that you have decided not to read, note this down and where possible give reasons for doing this.
- Note down the title and type of material you would have read on your mobile device i.e. textbook, novel, newspaper, website, magazine etc.
- Write down where possible how many pages or chapters you read and for how long.
- Record whether you like or dislike what you are currently reading. Say why this is the case.
- Give the exact location where you read this i.e. at home, at school, on a minibus to town etc.
- Write anything else you feel like writing no matter how unimportant it might seem.
- Always remember to record the date and time you make each entry.
- Be as truthful and as honest as possible as you make each diary entry.
- There are no restrictions or limitations to the length and number of journal entries you may make per day.
- Do not write your name or surname on any part of the diary. Use your code name or hash tag.
- Always bring your mobile reading diary to the weekly book club sessions.
- Consult the researcher if you are still in doubt as to how you will go about completing your diary entries.



## APPENDIX M: MOBILE READING DIARY ENTRIES

### Summary of Diary entry responses

<b>Diary entry Guideline: In the event that you have decided not to read, note this down and where possible give reasons for doing this.</b>		
<b>Participant</b>	<b>Entry Date</b>	<b>Original Diary Entry</b>
1	22/2/18	Due to the examinations I have not been able to make much progress but I am trying my level best. I am reading page 16.
2	21/2/18	This weekend I will not be capable of reading the book. I have to revise for my exams so this is my best entry Poochy bye bye.
3	12/3/18	I wasn't here yesterday because I had no wifi but its back now. I ended up changing my book.
8	19/2/18	Today I did not read anything because I was not able to find my book about Back of the net.
12	23/2/18	I didn't make an entry yesterday and today because I have been busy studying for the tough exams we have (yoh).
14	23/2/18	Today I didn't read because I was revising for my English exam. I hope I will pass.
	2/3/18	Today I did not read anything because I was not able to find my book about Back of the net. I later find it, but then just got lazy and decided to read tomorrow.
17	21/2/18	Today I could not read due to the preparations for the final exams but I promise I will read tomorrow.
18	9/2/18	Didn't read today: (I didn't have my I Pads so I wasn't able to read my Wattpad books so I decided to start on my hardcopy novel tomorrow called ' A Stranger is Watching.
9	16/2/18	Personally, I try not to read most of the time and tend to play video games. The last time I read was the last time I was forced by my elder brother to read a novel. In my life I have never ever finished a novel properly.
<b>Dairy entry Guideline: Note down the title and type of material you would have read on your mobile device i.e. textbook, novel, newspaper, website, magazine etc.</b>		
1	27/1/18	Today I read fascinating a fascinating book entitled, "Doth Girl".
2	12/2/18	Do you still remember those days I would say I would read the really stupid book about life, well it finally happened. So I have read the book well what I've got to say is that the book would make my grandma fall asleep. Basically I just read about twenty nine pages and all I have really understood is that the guy was a huge disappointment to his family when he didn't become a doctor.
4.	2/2/18	I'm not a fan of romantic books or novels but this novel called 'Second chances' changed my mind. It's about a high school couple named Mia and Hunter.
5	18/2/18	I am reading a novel called 'Right behind you'. It is about a 7 years old boy who set his best friend on fire on his birthday just because of a baseball glove.
8	18/2/18	Today I read a book called "Paddy Corcoran's Wife". The story is about a feeble lady. She was sick and the ideal wife.
	17/3/20	Today I read the best book ever called, 'Back of the nets'. It is about a teenage girl who loved science, so then she was supposed to go to Horlad Science Academy.
10	10/2/18	I started reading this book about this boy who received powers from his mentor his and his father and was conflicted. Honestly that was boring and encaptivating so I stopped at page 2.
11	8/3/18	I started on 'A Stranger is watching' today. The first chapter completely blew me away. The author is Mary Higgons Clark, she is a suspense writer, even the description at the back of the book is bone, chilling. I like that the first page didn't start the typical books, where it will be like one Sunday night, or a man lived in a house, type thing. The book started off with a man watching an

		interview on television of people in court discussing the punishment of a murderer. I only read one chapter so I will find out what will happen next.
12	29/1/18	Today I read a book called 'Holes' by Louis Sachar. It was about a boy called Stanley who has been wrongly convicted of a crime.
13	5/2/18	Hi I'm reading a book on watsapp called Faith. It's not bad compared to the many books I've read on watsapp.
14	14/3/18	I like reading books based on cartoons with images in colour with less than thirty pages.
18	16/2/18	I love a bit of mystery, total reality or rather circumstances where I end up feeling like the characters for example when they cry, I sob, when they shout I defend them too. So it really changes my mood, mostly I become happy, anxious to read and interested.
19	21/02/18	I love reading novels like 'Dark Diaries' and 'Diaries of a Wimpy Kid.
23	25/3/18	I use an application called free books on my tablet to read a wide range of books. This app lets me read books by [a]claimed and well-known authors like Charles Dickens Unlike my friends I do not read Watsapp books because the books do not give me a sense of nostalgia.
<b>Diary entry guideline: Write down where possible how many pages or chapters you read and for how long.</b>		
1	18/2/18 22/2/18	The more pages I read, the more interesting it gets. Due to the examinations I have not been able to make much progress but I am trying my level best. I am reading page 16.
2	12/2/18	Basically I just read about twenty nine pages and all I have really understood is that the guy was a huge disappointment to his family when he didn't become a doctor.
3	2/2/18 4/2/10	Chapter 1 talks about how in love they are but the boyfriend's parents think Mia is ruining his career. I read 10 pages so far and the kid has a best friend who he always tell about his mom being such an embarrassment.
		In chapter 3, Kip claims he doesn't remember what happened so he know what his dad, the doctor and also what the news articles wrote about.
10	10/2/18	I started reading this book about this boy who received powers from- his mentor his and his father and was conflicted. Honestly that was boring and encaptivating so I stopped at page 2.
12	17/2/18- 24/2/18	-The first chapter completely blew me away. -Today I read chapter2. So then this chapter was about the two people who were in the court, Steve and Sharon. -In chapter 3 he was planning on kidnapping Steve's son Neil to get a ransom that he will use to run away. -I read two chapters because chapter 4 was quite short so chapter 4 was now Neil's point of view. -Anyways I read chapter 6 and 7. Chapter 6 was just two pages and was about that mysterious man from the beginning of the book. He is now carrying out his plan of kidnapping Neil and in chapter 7 was epic! - So chapter 9... my favorite chapter so far was filled with so much suspense.
14	28/2/18	Now on chapter 2-4 and its now getting interesting.
<b>Guidelines to dairy entry: Record whether you like or dislike what you are currently reading. Say why this is the case.</b>		
3	4/4/18	I don't like using my mobile phone to read I see it as a distraction actually because on phones you have all these social media and WhatsApp and always there is [a] notification so I prefer reading the natural material books.
4	24/3/18	The stories are becoming so cliché. It is becoming hard to find a book that doesn't involve romance
5	21/3/18	Some of the stories do not finish. You will be reading and have no pictures, I prefer watching actions and movement to understand.
6	23/02/18	reading is boring

7	9/2/18	I do not really like reading but I think it is good for people as it improves your vocabulary.
12	28/2/18	I've never liked using a mobile phone to read a book because I don't understand it. I feel like a person needs to read a book of physical existence although it is the old-fashioned way.
14	1/4/18	Pictures in some of the books it makes me feel like I am there.
16		I can read comments on the book and ask other readers on how interesting the book is before I read.
17	25/2/18	It is just fascinating to read whatever appears on screen. I can even spend the whole day on screen reading about young love. I do not care about my surroundings or what to eat at all.
<b>Give the exact location where you read this i.e. at home, at school, on a minibus to town etc.</b>		
2	27/2/18	I am in the blankets now and am feeling sleepy so goodnight Poochy.
5	3/3/18	I only read physical books at school because then I will have time to go to the school library. But when I am at home I read mobile books on my kindle.
8	22/2/18	As usual I read in my room on my bed.
10		I like reading on my bed or any cool place.
11	26/2/18	When I am at home I read mobile books on my kindle and sometimes use audible because with audible it can read the book to you and you won't have to.
14	13/2/18	Usually I read on weekends when I am not going to school because on weekdays I will be studying so basically my leisure time is on weekends.
18	9/2/18	As you know my favourite read place is under the big tree in the garden.
19	27/3/18	I read outside lying on the trampoline staring at the stars.
21	1/2/18	I enjoy reading under the stars, outside and lying down.
23	14/3/18	I read on my bed mostly, when I am about to go to sleep.
<b>Dairy entry guideline: Record the challenges you encountered while reading on mobile.</b>		
5	11/2/18	I am reading this boring story, the book itself is very confusing with a lot of characters that don't make sense. I think I get addicted from time to time.
8	3/4/18	I hate the fact that it need WI-FI and I don't have that all the time.
15	12/2/18	You can't really ask questions about the book you just have to read and understand by yourself.
18	15/2/18	The only problem is I have to charge my phone unlike a physical novel that is forever ready to read
<b>Diary guidelines: Write anything else you feel like writing no matter how unimportant it might seem.</b>		
6	23/2/18	Reading is boring. I am more active. I like to play outside than sit down and read.
9	21/3/18	I have changed my reading behaviour since I started attending the mobile reading class. And from now on I can even share this mobile reading to friends [across] the seas, different continents too.
12	28/3/18	I've never liked using a mobile phone to read a book because I don't understand it. I feel like a person needs to read a book of physical existence although it is the old-fashioned way.
14	24/3/18	The book I favour the most and read almost every day although I read about less than fifty lines, except on Sundays is my Bible. It helps me in different ways and I really enjoy reading it.
17	25/2/18	It is just fascinating to read whatever appears on screen. I can even spend the whole day on screen reading about young love. I do not care about my surroundings or what to eat at all.
18	19/3/18	I usually have an installed dictionary that allows me to search words in the passage
20	17/2/18	I read because reading makes me more brighter and intelligent and reading is a better way of spending my leisure time.
21	28/3/18	Reading really helps me with my vocabulary. Reading helps me get out of my comfort zone.
23	22/2/18	I rather read e-books because they are more interesting for me, I don't have to look for a book but I can just search for the book I want to read.

**APPENDIX N: FOCUS GROUP ASSENT AND CONFIDENTIALITY AGREEMENT**

I \_\_\_\_\_ grant consent/assent that the information I share during the focus group may be used by Ivan Bachisi for research purposes. I am aware that the group discussions will be digitally recorded and grant assent for these recordings, provided that my privacy will be protected. I undertake not to divulge any information that is shared in the group discussions to any person outside the group in order to maintain confidentiality.

Participant's Name (Please print): \_\_\_\_\_

Participant Signature: \_\_\_\_\_

Researcher's Name: Ivan Bachisi

Researcher's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## **APPENDIX O: FOCUS GROUP EVALUATIVE TASK GUIDELINES – LETTER TO A FRIEND**

### Background

A friend of yours has just learnt about mobile reading. S/he is keen and eager to know more about mobile reading.

### Task 1

Write a letter to your friend, sharing your own mobile reading experiences. In your letter, include some or all of the points included below (You are also free to add points of your own).

- What you like most about mobile reading
- What you dislike about mobile reading
- Your favourite reading application(s) and materials
- Your favourite mobile reading place
- Has mobile reading benefited you in any way?
- Would you continue with mobile reading without the guidance of your teacher
- Has your reading behaviour changed since you started mobile reading?
- Would you recommend mobile reading to your friend?

### Task 2

Allow each group member to read their letter to the rest of the group. Discuss with the rest of the group ideas you find interesting in these letters. If you feel you would like to include additional ideas in your letter as an afterthought leading from the discussion, you are free to do so. Write these as a postscript to your original letter.

## **APPENDIX P: PARTICIPANT RESPONSES TO FOCUS GROUP EVALUATIVE TASK- LETTER TO A FRIEND**

### **Participant 1**

Dear Nasty

*I am writing this letter to you sharing my experiences on reading on mobile devices.*

*I started using the Wattpad application when I was inspired by my friend called Ricky. As you know I am a person who loves reading. On Wattpad I enjoy reading motivational novels which inspire me to become a great leader. Wattpad is a useful tool that helps me a lot with my English Vocabulary.*

*The thing that I dislike about Wattpad is that it offers some unnecessary stuff like sex images and many more. Usually, when I am reading, I enjoy reading in bed but sometimes in class. My experience from reading on Wattpad or my benefits are my English has improved and I now enjoy reading more than I did before I started using Wattpad.*

*I just want to advise you to continue using Wattpad because it is a very useful tool that can help you lift your English Vocabulary to a better level. I also encourage you to use Wattpad with caution because some books are not of your age, choose the right books which are of your age.*

*Wattpad is a very good reading platform that can help you boost your English.*

### **Participant 2**

Dear Paul

*I like reading books because they help me get knowledge and know a lot. I have many sources of getting a chance for reading e-books because you get to search and not to buy books. All you need is a mobile device, unlike the ones who use physical, they waste energy holding a big book.*

*The last time I read it now as you are marking I am reading.*

### **Participant 3**

Dear Chelsea

*I am writing this letter to inform you about my mobile reading experiences on Wattpad.*

*I find Wattpad very amusing because most of the genres I like are included. I like reading fiction, mystery and romance these genres fill in my spare time all the time without fail. I am mostly interested in the fact that anyone can write stories and publish them which means you can even read a friend's book. Teenagers write most of the books they have good grammar in the sense that they good language but make sure that people can relate.*

*Although Wattpad might be my favorite reading app it also has a disadvantage and some things I don't like. Wattpad sometimes has videos and pictures but they don't load when they are no internet. They are also ads I despise with a passion.*

*I always go to the cafeteria to read Wattpad but I love it because it's on my mobile. The cafeteria is more comfortable and quiet which means no one will be disturbing. Wattpad mostly helps me with my English grammar and this improves my composition writing. I am interested in wattpad now and thank you.*

#### **Participant 4**

Dear Tino

*I hereby write you this letter just to let you know my experiences of reading on my mobile device.*

*Well, I started reading Worldreader about 3 years ago and I have so far read about 150 books because I don't read all the time.*

*The number one thing I like most about Worldreader is that no matter how many chapters the book has, you never get tired of reading unlike reading an actual book.*

*I also read on Wattpad, but, the thing I don't like about Wattpad is that it has people who write books that are not of their age and it causes people to say bad languages. But I still encourage you to use it. It helps you improve your reading skill and you start liking to read.*

*Anyways how are you? Hope to see you this holiday. Pass my greetings to your parents.*

#### **Participant 5**

Dear Kaitano

*Many people in the world love reading books, pamphlets, books on mobile phones. I like reading books on a mobile phone.*

*My favorite spot/place to read is at a library. I love reading at the library because it is quiet and because there is an assistant there.*

*I read as many times as once a day. That will be during study time. During this time I study for a perfect 2 hours, but on Wednesdays, I study for 4hours*

*My favorite book to read is named chronicles of Narnia. This book is interesting to read because there is a movie about the story, so it becomes interesting if you compare the movie to the book.*

*This is my reading experience.*

#### **Participant 7**

Dear Edwin

*I am writing this letter to tell you about my experiences reading Wattpad, a new website on my iPad.*

*My profile name on wamppad is Ilovemycats2020. What I mostly like to read on Wamppad is music, the Original Vampire series, WWE. What I dislike reading on Wamppad are love stories like the kissing booth and wedding planner.*

*My favorite reading place is at home because I have my privacy and quiet time I where there is absolute silence and personal space.*

*I have benefited from reading Wamppad because there are a lot of interesting stories. My reading habits have changed a little but I hope you also enjoy Wamppad.*

### **Participant 8**

Dear Martial

*Hi Martial, I am writing you this letter to tell you more about the wamppad and the stories which are there.*

*On wamppad I mostly like reading teen fiction and fan fiction. I dislike those stories with too much false information and lies like werewolves and vampires although they are somehow interesting. Usually, when I am reading these stories, I will be in my bed or the park. I found it more interesting reading my fiction in the park because it will be more easier for me to imagine doing the things myself or try to be creative and make things I think to happen in my head.*

*From reading on wamppad I noticed with time my English grammar changed to good and when I am doing my comprehension passage in class, it's now easier to get things swiftly. I encourage you not to get yourself addicted to this reading app and make sure you read knowing you got more things to do.*

*How are you? I'm great. I miss you so much and I hope to go to the park together and find one or two books to read and enjoy our holiday. Share my greetings with Paul.*

### **Participant 10**

Dear Pal

*I am writing this letter to tell you about my mobile reading experience.*

*I started at first term this year. I liked the way we studied. Because you may ask you don't understand. And the teacher is friendly and kind.*

*But the people here don't even cooperate even if on whatsapp. We created this because we wanted to share the ideas but the people made things complicated.*

*I liked children's books like Moremi the courageous queen and others. And young adults books and many more. And I liked reading when nobody is disturbing me I can even read and downlowd some books and share books with friends.*

*And now alone I can even continue reading without the guidance of my teacher in any way that I need help. I can do it on my own.*

*I have changed my reading behavior since I started attending the mobile reading class. And from now I can even share this mobile reading with friends along the seas, different continents.*



*Yours Sincerely*

**Participant 11**

Dear Mellisa

*I am writing this letter to tell you about my different experiences using watsapp.*

*On watsapp I mostly liked stories that mainly involve fiction and would not enjoy reading books that were romantic or if they were a fantasy. When I read. I like reading watsapp outside under a tree with the cold breeze in my face which makes it easier to enjoy reading.*

*As I read watsapp I think it helped me in my sentence construction and helped with my spells. I think watsapp is a very useful tool but you should not turn your reading habits into an addiction.*

**Participant 12**

Dear Mary-Jane

*I am writing this letter telling you the features and benefits of reading on your mobile devices or gadget.*

*Watsapp is a very enjoyable application for reading. It is reliable and interesting. I mostly like reading inspirational books.*

*People say that romance books are interesting, but I like reading books in a quiet environment where no one will disturb me.*

*Watsapp helps improve your vocabulary and benefits you a lot.*

*Watsapp books can help you improve your life skills and teaches you new things that you have to learn.*

**Participant 13**

Dear Matidina

*It is one of the things I love most apart from eating, reading.*

*Reading is just so extra-ordinary. I love to read it on my mobile phone because it makes me understand more because of the illustrations it shows. In my spare time, I go to Nyakame pond that is where I normally read my novels from midday till sunset.*

*I really like reading romantic comedy comics. They make me feel butterflies in my stomach out of joy. Jolly, they make my stomach hurt out of laughter. Pure tears of joy, salty with a pretty smile coming out of my face. I often read a comic per two days because I'm not really fast as flash when it comes to reading. The funniest book I ever read was a comic about two boys in*

*high school fighting over a pretty substitute teacher. In the end, they both got detention and lost their friendship.*

*Reading comics, novels and some magazines is actually fun though you have to have a standard sense of humor according to the book you like.*

#### **Participant 14**

Dear Enzo

*I am writing this letter to tell you how fun reading comics is.*

*Comic books are very fun. They have amazing pictures with realistic graphics. Comic books also have so many colors. When you start reading a comic book your eyes would not want to stop reading. Comic books are my favorite books to read during my leisure time. The things I love about comic books are they make our imagination out of this world and they relieve people from stress. The thing I hate about comic books is that there can be an interesting part and then your hopes would be very high but then they give you a boring answer at the end. Comic books are enjoyable when you pick the right one, for example, Marvel has the best comic books in history so if you take one like Peppa pig you will fall asleep reading it.*

*I hope you will start reading comic books and enjoy them as I do.*

#### **Participant 15**

Dear Kaitlyn

*I am writing this letter to inform you about my great experience of reading wattpad.*

*As you know I am a person who likes reading books so this application is a very useful tool for me. Wattpad is a good application because it improves my English vocabulary and this is why I like the application. Everything on the earth has an advantage and a disadvantage so the bad thing about wattpad is that some books are not for our age.*

*I am comfortable reading books on this application when I am travelling. Before knowing about wattpad I used to be bad at spellings but now I am as good as gold at spellings. Wattpad also encourages me to have a reading culture in me. My encouragement to you is that do not read the book which is not for your age. The other good thing about wattpad is that you have thousands and thousands of books on one device.*

*Wattpad is a really good reading tool.*

### **Participant 16**

Dear Patel

*I have written this letter saying or telling you about my reading habits. I like reading on my mobile phone. I like reading horror books because they scare me and I also like reading love books. I normally read in my bed. I use my phone to read in my bed. I read every day in class, study or after (DH) breakfast. I also like reading books of inspiration like T.D Jakes books and comic books.*

### **Participant 17**

Dear Babolinge

*I am so glad that you came to me for reading the advice. I have had so much fun don't know why I did not tell you sooner.*

*When I first read my first book I had no interest in seeing what was beyond. I just looked at the title and left. I had to make that decision to read at least one book in my life. I started reading a book and I actually found that I liked it and I wanted to find out more because I am a guy who likes adventure. So I started reading this book called the art of war.*

*What I liked about the book is that it related to my life problems and it also teaches you how to get rid of them and maintain your standards.*

*It also helps you with your vocabulary and it also helps your figure of speech.*

*I encourage you to read more and you will improve in life.*

### **Participant 18**

Dear Hope

*Mobile reading encourages not just children but adults to use their mobile devices wisely.*

*Many people around the world use technology for things that are not useful to them, like playing games, watching videos, etc but with reading mobile you do something useful with your mobile device.*

*What I mostly like about mobile reading is that it helps in literacy skills, which also help in reading skills.*

*I think mobile reading is good for young and old people because no one wants to use books because of our advance in technology.*

*Mobile reading is good and I think everyone with a mobile device should indulge in it.*

## **Participant 20**

Dear Sibongile

*I'm writing this letter to inform and share with you what I learnt about mobile reading. The things I liked the most were the books on sports which made me know the background of some of the best sportsmen in the world.*

*When I read about the history of Michael Jackson and the things he did till his last breath I was so bored which made me think he was a Satanist. My favorite stories were of my favorite sports person Cristiano Ronaldo and Lionel Messi. My favorite reading place was in my room where there are no disturbances. Mobile reading benefited me in my literature. I would continue my reading without my teacher's guidance but not all the time. My reading behavior changed because that was how I would talk about the history of football with my friends. I would recommend reading to my friends because it would help them with grammar. I read about Messi on a website.*

## **Participant 22**

Dear Allen

*It was indeed an unforgettable experience being part of the mobile reading sward being able to choose a variety of books of my interest which kept me occupied because I was desperately curious to know what will happen next.*

*No data meant no reading the collection I loved the most which was that of young adults my parents were getting a bit uncomfortable with me asking for money to buy airtime. Most of the time when I am busy reading my favorite adventure trend cup of coffee and biscuits because I usually read at home. I feel bored these days because my parents took my phone because I was up at 3:00am which is likely a disadvantage to my reading.*

*I feel like I had more to gain than to lose because most of my time I was not on social platforms but I was reading. I would so much want to continue mobile reading without the aid of my teacher because it now is like a hobby. Now I read novels a lot so my reading behavior changed.*

*I would so much invite friends to be part and parcel of mobile reading and enjoy the adventure with us.*

## **Participant 23**

Dear 21 Savage

*Hey, 21 how was your holiday, mine was fun because I went to SA so remember I once told you about that thing called mobile reading and it was good for not just good but very good for me because I started being good at reading. For that, I will keep on reading with mobile reading.*

*I think you have to start using that app.*

*The books that I read*

- 1) Doctor in the mirror*
- 2) The story of mess*

## **APPENDIX Q: FOCUS GROUP INTERVIEW SCHEDULE**

- 1.** As a teenager do you like engaging in mobile reading?
- 2.** Which device do you use for your mobile reading and which is your favourite mobile reading application?
- 3.** Do you think mobile reading has changed the way read? (eg reading habits, interest in reading, time spent reading, amount, etc).
- 4.** What motivates you to read on your mobile device?
- 5.** How do you feel when you read on mobile?
- 6.** What do you think are some of the benefits/ advantages/ joys or pleasures you have experienced while reading on mobile?
- 7.** What are some of the challenges/ problems/ disappointments you have experienced while reading on mobile?
- 8.** Do your friends read on mobile? Do you share stories on social media? Would you encourage friends to do it?
- 9.** Do you like reading physical books or mobile books?
- 10.** Would you say you are changing into a mobile reader?

## APPENDIX R: SUMMARY OF RESPONSES FROM FOCUS GROUP INTERVIEW

### *Focus group interview question 1*

The objective of this question was to investigate the extent to which the participants of the study had begun to develop and sustain a reading habit around their mobile reading devices. This was a self-evaluative question in which the participants assessed and reflected on their engagement in mobile reading with relation to their age and exposure to the mobile reading intervention designed for this study.

1. As a teenager do you like engaging in mobile reading?

### *Responses to question 1*

<b>1. As a teenager do you like engaging in mobile reading?</b>							
<b>Focus Group 1</b>	1	4	7	11	14	17	20
	Yes, I enjoyed engaging in mobile reading.	I do engage in mobile reading	As a teenager, I enjoy engaging in mobile reading because it is modern.	Yes as a teenager I do engage in mobile reading.	Yes, I do enjoy engaging in mobile reading.	Yes I do like reading from apps like watsapp and also listening to audio books	I do engage in mobile reading.
<b>Focus Group 2</b>	3	6	9	13	16	19	23
	Not really, just once in a while when I'm doing my research using the internet	Yes, I engage in mobile reading.	I enjoy reading on my mobile device.	I do.	Yes, I like engaging in mobile reading.	I did engage in mobile reading	Yes, I do engage in mobile reading.
<b>Focus group 3</b>	2	5	8	12	15	18	21
	Yes, I do like it.	It is sometimes my hobby.	Yes, I do engage in mobile reading.	I do engage in mobile reading.	Yes but rarely do I do it.	I like engaging in mobile reading	I do engage in mobile reading

The majority of the responses to question 1 show that the participants were familiar with and had begun to engage in mobile reading. Twenty-one out of the twenty-three participants (91.3%) acknowledged that they engaged in mobile reading. Only two (8.7%) out of the twenty-three participants said they rarely engaged in mobile reading. This represents an increase in mobile reading engagement when compared to the onset of the study where only

34.8% of the participants had indicated in the literacy practices interview that they always read on mobile.

***Focus group interview question 2***

This was a follow-up question to question 1. This question intended to find out from the participants the extent to which the participants engrossed in mobile reading by identifying their favourite mobile reading devices and mobile reading applications.

2. Which device do you use for your mobile reading and which is your favourite mobile reading application?

***Response to focus group interview question 2***

<b>2. Which device do you use for your mobile reading and which is your favourite mobile reading application?</b>							
<b>Focus Group 1</b>	1	4	7	11	14	17	20
	I use an iPad and the application. I like using is Bluefire and worldread.	I use my tablet and I love watsapp.	I use my tablet and laptop but I prefer my tablet the most.	I use my phone which is an ITEL for reading and my favourite suite to read is worldreader.	I use my phone for mobile reading and my favourite mobile reading application is Watsapp.	I use my laptop or phone and I like using watsapp or reading online articles.	I use my phone and laptop for mobile reading and my favourite application is watsapp.
<b>Focus Group 2</b>	3	6	9	13	16	19	23
	On my cell phone, I usually use google chrome or PDF.	Laptop or phone.	I use my phone or tablet. I love reading watsapp and some stories on world reader.	I normally use my mobile phone and I like watsapp.	My Dad's iPad or my tablet and my favourite reading application is watsapp.	I read on my mobile phone and I like reading on watsapp and world reader.	I use my smart phone and I use watsapp.
<b>Focus Group 3</b>	2	5	8	12	15	18	21
	I use my laptop for mobile reading and I really using adobe books	I use my laptop and I like world reader and watsapp	I use my mobile phone and I like using the world reader mobile reading application	The device I use for mobile reading is my tablet and my favourite reading app is worldread. I sometimes read on my mobile phone books from	My Parent' iPad or my big brothe"s tablet and my favourites are worldreader and watsapp.	I use my cell phone and laptop. I use watsapp and also the world reader but not	I use my Samsung phone and I like reading on watsapp and read it.



				WhatsApp, but I don't like them because they are mostly full of love stories that don't teach vocabulary to me personally.		that much.	
--	--	--	--	--	--	------------	--

The responses of the participants to question two reveal a rising consciousness of mobile reading amongst the participants. Firstly, all the participants confirmed that they had access to a mobile device that they could use for reading. Secondly, the broad range of mobile reading applications favoured or preferred by the participants is testimony that the participants had widened their own mobile reading experiences beyond the two mobile reading applications recommended in this study. While wattpad and the world reader mobile reading application featured prominently on the participants' favourite mobile reading application other mobile reading applications are referred to. Mobile reading applications like bluefire, readit, adobe books and reading online from Google all reflect the independence and autonomy exercised by adolescent participants as they engaged in mobile reading.

***Focus group interview question 3***

This question was meant to interrogate how mobile reading devices had started to foster positive reading behaviours and literacy practices amongst the adolescent participants. The question sought to elicit from the participants the degree to which mobile reading had altered the literacy practices which shaped their leisure reading habits. These literacy practices included such elements as interest in reading, amount of time spent reading and the frequency of reading.

3. Do you think mobile reading has changed the way read? (eg reading habits, interest in reading, time spent reading, amount, etc).

***Responses to focus group interview question 3***

3. Do you think mobile reading has changed the way read? (eg reading habits, interest in reading, time spent reading, amount, etc)							
<b>Focus Group 1</b>	1	4	7	11	14	17	20

	Yes, it has because it has some active parts that do not make the reading boring.	No, I have always loved reading	I think mobile reading has changed me because when I read on my mobile that is when I understand better.	Yes, I do think mobile reading has changed the way I have read.	Yes, it has changed the way I read I used to read for two hours a week but now I read three-quarters of the day. It has helped me to improve my grammar and pronunciation of words.	Yes, I think it has because I might finish my library book and not have time to change, but with mobile reading, I can read any time, I can even download a book and read it whilst in the car going somewhere . I am quite lazy and with my phone, I don't have to stand up and look for a book. There is also a wide range of books on the net and I am not limited.	Mobile reading has changed the way I read because as a teenager my priority when I am free is my phone and I eventually find myself reading watsapp.
<b>Focus Group 2</b>	3	6	9	13	16	19	23
	No	Yes, it has changed because I benefit a lot from understanding.	Maybe a bit.	I think mobile phones make it better to understand what you read because it has got videos of education on phones.	Yes, I think it has changed me I think I spend more time reading.	I love my cell phone a lot and I think I spend more time reading. So yes I am changing the way I read.	It is easily accessible and portable since it is on a phone also then looking for your book which you cannot carry everywhere so it has increased the amount of time I spend reading.

Focus group 3	2	5	8	12	15	18	21
	Yes, it has because I prefer to read using a gadget than reading a big and heavy textbook. It has encouraged me to read more as it provides many other resources on the internet. My reading behaviour changed because I became confident about how I would talk about the history of footballers with my friends.	It is easier for me and portable.	I think now spent more time glued to my mobile phone reading the stories on the application.	Mobile reading hasn't changed my reading habits or interest in reading through it has altered a bit of my reading time as time spent reading has decreased almost all the other factors are unaffected	Yes, I do feel more interested as it asks for the type of books you like but I am easily distracted so I spend less time.	Well, it depends because I only read on my phone when I am at home but at school, I read books from the library.	Yes, mobile reading is good because you can read your books anywhere, even on a bus, walking because it will be your gadget other than going for a walk with your school books.

80.6% (nineteen out of twenty-three) of the adolescent participants affirmed that mobile reading had changed the way they read. Some of the reasons advanced by the participants in support of this assertion were that they now spent longer times reading, they understood what they read better and that they were now able to read on the go (anytime and anywhere) without being interrupted by visits to the library to borrow books. The participants also of the opinion that mobile reading was more active compared to physical book reading which they felt was passive. Another reason why the participants felt that mobile reading had changed them was that mobile reading devices were portable and enabled them access to a wide range of reading materials that matched their interests.

Only 8.7% of the participants were unsure if mobile reading had altered their reader identity and reading habits. A further 8.7% of the participants said mobile reading had not changed them in any way as they already loved and enjoyed read already.

***Focus group interview question 4***

This question focused on the triggers that drove the participants to read on mobile devices.

4. What motivates you to read on your mobile device?

***Responses to focus group interview question 4.***

<b>What motivates you to read on your mobile device?</b>							
<b>Focus Group 1</b>	1	4	7	11	14	17	20
	I engage in mobile reading so that my thinking skills and great imagination improve.	Boredom or if I am in the middle of reading a book.	Advertisements motivate me in mobile reading.	I am motivated to read on my mobile phone because my mobile phone is portable so that means that I can read my books anytime, anywhere.	What motivates me to read on my phone are the books that have an interesting summary that catches you on the spot. The way the books leave me in suspense excites me	I am able to read whilst lying on my bed and not have to flip through pages. I get notifications for books to read which makes me just open and read.	Interesting romance stories motivate me to read on my mobile.
<b>Focus Group 2</b>	3	6	9	13	16	19	23
	I am not really motivated to read on my mobile phone	The internet	I think most of the stories are about teenagers so I enjoy reading them.	When reading items are on the mobile phone they look like they are interesting and fun so I read them to get the knowledge.	I can change the fonts, colour, background and I easily get a dictionary installed within the applications.	I love reading novels like Dark Diaries and Diaries of a Wimpy Kid. Those novels make me feel like there is more out in the world than sitting on a couch eating broccoli and	Tangible books/ novels can have torn or missing pages or can easily wear out while I like how on a mobile device the quality of the book especially the front cover is very attractive.

						watching the regular show.	
<b>Focus group 3</b>	2	5	8	12	15	18	21
	The fact that you do not have to flip pages really motivates me all I have to do is scroll up and down.	When I feel the hope of me accomplishing something	The folktales always have a message to teach you so I always look forward to reading those.	It is easier for me to access books I cannot acquire in a physical copy.	Stories I hear from some of the books	I think I want to learn more about other teenagers like me and how they deal with life.	I want to explore more and know more about the world around me.

The participants identified several triggers that motivated them to read on mobile. The participants said they were motivated to read on to overcome boredom, to learn more about the world and to enhance their thinking skills and imagination. The participants were also motivated to read on mobile by the rich media formats in which most of the mobile content and books are presented in. Other mobile book features and functions that also motivated the participants to read included digital flip and scrolling pages. The participants also felt motivated to read on mobile because they loved reading and reading gave them a sense of accomplishing something.

***Focus group interview question five***

This question sought to elicit more information regarding the emotional response of the participants towards mobile reading. The emotional responses of the participants served as a barometer to determine the extent to which the participants engaged in mobile reading and were likely to continue reading on mobile.

5. How do you feel when you read on mobile?

***Responses to focus group interview question five.***

<b>How do you feel when you read on mobile?</b>							
<b>Focus Group 1</b>	1	4	7	11	14	17	20

	I feel relaxed and cooled down and it mostly reduces my stress.	I feel engaged and excited.	When I read on mobile I feel secure because it will be my device rather than school books	When I read on my mobile it is easy I just feel free.	I feel relaxed and keen to know what is going to happen.	I feel like I can learn a lot more because if there is a word I can't understand I can simply open a dictionary on my phone. I can also read a variety of books	I feel more of my age and I feel like I am modern.
<b>Focus Group 2</b>	3	6	9	13	16	19	23
	It feels ok but I'm not a fan of it	I understand better	I feel good about myself when I use my phone or tablet for reading books as I can lie on my bed and read comfortably. I feel like I'm using this tool for good.	When reading on my laptop or mobile phone I feel free to do anything and that is when I understand better.	I feel relaxed and excited.	Well, I guess I feel more alive and energised when using my mobile device because sometimes I dose off when I am reading a textbook.	I always stay interested and I never get tired because I can change the lighting on my mobile device different from a book where you keep looking for good lighting until you get bored.
<b>Focus group 3</b>	2	5	8	12	15	18	21
	I feel as if more information has been provided for me as I can access the internet.	I feel mobile reading does not necessarily make people smarter because people have different levels of understanding, some maybe faster learners and some are	I feel bored these days because my parents took my phone because I was up at 3am, which is likely to disadvantage my reading. I feel like I had more to gain than lose because most of my time I	I sometimes I feel empty as the pleasure of reading seems to be sucked out of me but sometimes the feeling is just mutual and the book I am reading on the mobile has a unique	I feel like I'm reading a normal book only on a gadget.	I feel like I grasp concepts faster since I will be seeing a lot of pictures and videos.	I feel happy because I feel smarter and understand better.

		slower learners.	was not on social platforms but I was reading.	flavour that I feel a true reader should know and have experienced.			
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Mobile reading elicited a wide range of emotional responses from the participants. However, a general feeling that can be gleaned from the responses to question five can at best be described as satisfaction. In other words, the participants expressed satisfaction at engaging in mobile reading as it fulfilled some of their emotional needs. The participants felt that they learnt more, happy, relaxed, liberated and energised by engaging in mobile reading. The participants also felt modern, secure and excited to read on mobile.

A few participants did however feel disgruntled by mobile reading. They felt that mobile reading emptied and stole the joy away from the whole reading process as it did not involve the use of physical or hard copy books. Another response grumbled at the mere fact that they were simply not a fan of mobile reading and thus felt unmoved.

***Focus group interview question six***

This question focused on eliciting actual narratives of the participants' experiences while reading on mobile. The question besought the participants to share details of the joys, pleasures and benefits they derived from mobile reading. This question helped to assess if the literacy practices of the adolescent participants had undergone any radical or incremental change as a result of their engagement in mobile reading.

6. What do you think are some of the benefits/ advantages/ joys or pleasures you have experienced while reading on mobile?

***Responses to focus group interview question six***

<b>6. What do you think are some of the benefits/ advantages/ joys or pleasures you have experienced while reading on mobile?</b>							
<b>Focus Group 1</b>	1	4	7	11	14	17	20
	It makes you have an imagination and	You can read books of other young authors who	Benefits of reading on mobiles are that it can re-direct you to a	I benefited a lot from my mobile phone reading for	I think some of the joy I have experienced reading on my	If I don't feel like reading or if I am walking	I basically think technology can promote good reading

	helps to understand the spoken language	aren't popular.	better website with more detail.	example vocabulary and pictures are clearer to get a better sense of a story.	phone are the twists, the happy moments in between and some of the happy endings. Mostly the non-cliché gives me the most joy.	with my dad I can just listen to my audio books. I have many sources of getting a chance for reading e-books because you can get to search and not buy books.	habits among people because it provides a wide range of reading materials. For example, I do not think mobile devices make people smarter it is just the effort which you put. Other benefits of reading on mobile are when I feel like reading but I am maybe having eye problems I can use the audio to read to me.
<b>Focus Group 2</b>	3	6	9	13	16	19	23
	Sometimes when I am doing my researches on different subjects using my mobile device is quicker and easier.	You get to understand more concepts.	Mobile devices provide quicker and easier access to softcopy books with a million categories to choose from. In that way, a young person will never get tired or run out of enthusiasm just because their local library does not have the favourite series, because on mobile every	Mobile phones promote good reading to young people because these days' young people really like using gadgets by using those gadgets to read so they end up reading.	I can change fonts, backgrounds, and colour, easily get a dictionary enhance my computer using skills and some applications have audio so you can hear different voices as you read along.	I think technology is more advanced than hard copies.	Since mobile devices keep me awake and the books are provided in a wide range of categories I basically have been reading a lot more books than usual.



			book is available				
<b>Focus group 3</b>	2	5	8	12	15	18	21
	Reading on mobile has had many benefits to me and my favourite when I take a break, I play a game or two on the device. This really refreshes my mind and of course, some other benefits like not having to buy books all I have to do is downloading books.	It is portable, faster information.	It is easy to get a lot of books for stories you like reading.	Some of the pleasures, joys and benefits I have experienced when reading on mobile are mostly that I can confer to reading physical books such as the pleasure mentioned above.	It is easier to carry around and you can do more things eg reduce the brightness and magnify and lastly, it recommends books likely to suit your interest.	I believe mobile reading does make people smarter because of the visual display and colours which may lengthen your attention span.	It is easier to access some materials because for example instead of going to buy a book from the book shop then you find it is expensive.

The participants reported deriving many benefits, joys, pleasures and advantages from engaging in mobile reading. The benefits of engaging in mobile as stated by the participants included gains in vocabulary, visual images in mobile books which aided the understanding of more concepts and an increase in volume and amount of reading done. Other benefits included not buying books and being redirected to websites with more details.

The pleasures derived from mobile reading by the participants were that mobile reading spurred the imagination and mobile devices were easy to carry around. The participants also enjoyed changing fonts, colours and listening to audio books. The adolescent participants also got joy from the twists, happy moments and happy endings of the various mobile books they read. The distinct advantage of mobile reading stated by the participants was that it promoted good reading habits through access to a wide range of reading materials.

***Focus group interview question seven***

This question sought to investigate any challenges, problems and disappointments the participants went through as they engaged in mobile reading. These negative experiences amount to negative perceptions which might create barriers or obstacles that prevent mobile reading.

7. What are some of the challenges/ problems/ disappointments you have experienced while reading on mobile?

***Responses to focus group interview question seven***

<b>7. What are some of the challenges/ problems/ disappointments you have experienced while reading on mobile?</b>							
<b>Focus Group 1</b>	1	4	7	11	14	17	20
	The backlight might affect your eyes through the increase of light resulting in dizziness.	Some applications require Wi-Fi making it hard to read in public places.	Some of the challenges are that sometimes my device runs out of power while reading and also when it falls and breaks.	Challenges of mobile phone reading are that sometimes the battery finishes while you are reading and sometimes the books are deleted by mistake while you are reading. I preferably enjoy reading physical books, because usually when reading from a mobile phone one is easily distracted.	The disappointment I have experienced while reading on my phone is if anything bad like if my phone falls and does not respond when I switch it on or if the battery is finished I would not have to read for maybe another couple more days.	At times I might be reading and there is a powercut or there isn't a Wi-Fi connection and I can't connect to my book apps. My phone's battery can get used up and I will have to wait for it to charge.	Some of the challenges I have experienced while mobile reading are when the internet connection is slow and I haven't saved the page I am on it may lose it and I will have to look from where I left off.

<b>Focus Group 2</b>	3	6	9	13	16	19	23
	When messages get in I am tempted to open them, then I start chatting with my friends and I get distracted	My battery went low and it froze.	Sometimes I get carried away because there are a lot of things on my gadgets like games, messaging applications and music.	At times you might not read the actual book itself but play games on the cell phone.	The device might run out of power and you might not find the book you want or it might require money yet you might not have a debit or credit card	I think reading on mobile phones hinders young people because of things like google and the internet.	The most crucial is damaging of the eyes from the screen brightness if you are using a cell phone your hand gets sore from holding your phone and for a laptop you will end up going to bed with your laptop which is not healthy and highly risky.
<b>Focus group 3</b>	2	5	8	12	15	18	21
	The major disadvantage I face is that my laptop's battery does not charge, so if there is no electricity there is no study which is a disadvantage.	It is tempting to go off topic, you cannot always be attentive	No data meant no reading that was the saddest part.	Some challenges are that the more you read on a mobile as differentiated on a or with physical books my interest in the book blurs and dulls quick and that takes the flavour of the book away and you find most readers who use mobiles first read for the sake of finishing to escape the abyss of reading	If there is no internet and you haven't downloaded the book you can only read passed through and sometimes the book is interesting and may have about two languages one you can't understand.	At times I wish I had a tablet because my phone is too small for continuous reading.	There are so many books to read and sometimes I can't make a choice on which book I want to read and I end up not reading. Or sometimes you start reading a book because of its nice poster on wattpad only to find that it is very boring.

				flavour loss such as me at other times. I generally don't like e-books because it is a disadvantage. After all, they need electricity.			
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The negative experiences the participants encountered while reading on mobile were mainly technical. Some of the technical glitches the participants reported included limited battery life, slow internet connection, poor connectivity, device damage and prohibitive data costs. The on-screen literacy practices of the participants were interrupted by mobile notifications from messages, the temptation to game ahead of reading and getting carried away by other device functions such as listening to music. The participants also cited that a bright backlight posed a health risk as it led to dizziness.

***Focus group interview question eight***

This question examined the social connections and reading networks the participants formed around their mobile reading devices. The question also sought to gauge the acceptance and assess the spread of mobile reading amongst the participants and their peers.

8. Do your friends read on mobile? Do you share stories on social media? Would you encourage friends to do it?

***Responses to focus group interview question eight***

<b>8. Do your friends read on mobile? Do you share stories on social media? Would you encourage friends to do it?</b>							
<b>Focus Group 1</b>	1	4	7	11	14	17	20
	Yes, they do, 'some,' I do share through social media yes I would.	Yes they do and we often advise each other on what stories are interesting and I encourage	Some of my friends don't read on mobile since they don't have gadgets. I do not share	My friends don't read on mobile but my family does. We don't share books with my friends on social	My friends do read on mobile but not all my friends. We do actually because we are all on the same	We don't share but one of them introduced me to watsapp which they are also	My friends read on mobile but I have never shared stories on social media with them.

		my friends to read so it becomes a hobby and improves their English.	my stories on social media.	media. I do however encourage them to read.	application we just send each other links and read and enjoy. Some of my friends I encourage them a lot to read but not all of them have their mobiles to read.	interested in.	
<b>Focus Group 2</b>	3	6	9	13	16	19	23
	Yes, Yes, Yes	Yes, they do. We only share stories on whatsapp. We share novels	No	My friend also likes using watsapp because there is a lot of teen fiction and adventure.	No	No	Yes, my friends do read on mobile and we even chat and discuss the books. I would encourage others to read on mobile too
<b>Focus group 3</b>	2	5	8	12	15	18	21
	Yes some of them do. We share PDFs through messenger s. I would encourage them to engage in mobile reading.	Most of my friends do share facts in groups.	Yes, we do although most of them don't like reading as much as I do.	My companions not exactly friends read on mobile though we haven't yet shared stories on social media, though reading perspectives may differ due to the current state of the world they should resort to reading on mobile but do encourage the use of	Only a few of them I have not shared my stories but I would encourage my friends to do so.	Yes, they do.	I think some of them do I'm not sure.

				physical books.			
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Three categories of responses emerged from this question. Fifty percent of the participants affirmed that they shared mobile books or encouraged their friends to read on mobile. The mobile reading materials distributed amongst friends included individual books that would have been deemed interesting, mobile books in different formats like books in Portable Document Formats (PDFs) and whole reading platforms like wattpad.

The second category of responses was represented by 17.4 % of the participants who said that they shared mobile reading material with only some of their friends and not all of them. The reasons put forward for sharing mobile reading materials with only some friends and not all included the fact that some of the friends did not have gadgets and that some of the friends did not love reading. The remainder 32.6% of the participants indicated that their friends did not engage in mobile reading and that they did not share mobile reading material.

#### ***Focus group interview question nine***

This question got participants to reflect on and compare both their traditional reading practices characterised by physical books and their modern reading practices represented by mobile reading. The preferred reading medium would indicate whether the participants were embracing mobile reading devices as a viable alternative reading medium compared to physical books.

9. Do you like reading physical books or mobile books?

#### ***Responses to focus group interview question nine***

<b>9. Do you like reading physical books or mobile books?</b>							
<b>Focus Group 1</b>	<b>1</b>	<b>4</b>	<b>7</b>	<b>11</b>	<b>14</b>	<b>17</b>	<b>20</b>
	I like reading mobile books	Physical books are more engaging and mysterious	I like reading mobile books.	I prefer both mobile books and physical books.	I would prefer to read on a mobile phone. The story is more interesting and gives more details.	I prefer mobile books because they help me to rise in the morning.	Reading mobile books more.

					When there is a scenario, a picture is provided so you can feel you are there. When I'm at school I have to read the physical books from the school's library and when I reach home I use my phone to read.		
<b>Focus Group 2</b>	3	6	9	13	16	19	23
	I like reading physical books	I like reading mobile books because it has an audio function which can read the book for you.	I think both because at school you only read physical books.	I like reading mobile books more.	I do not consider myself a reader but I like reading e-books because the kindle reads the book for you.	I think I like reading on my phone because you don't fall asleep.	Mobile and physical it's a 50-50
<b>Focus group 3</b>	2	5	8	12	15	18	21
	I prefer mobile reading.	I mostly do e-books for reading since that is where most of my favourite novels are found. Physical books can get damaged or lost even out-dated whereas phones we take major care of.	I like mobile books more cause they are of different lengths.	I like but not only like I love reading physical books there is such a deep and special connection with the book that will give you lifelong experience that cannot be replaced by machines. I love reading physical books because it is much harder to see the words on a smartphone. I like reading physical	Physical books	I like to read mobile books	I like both because I think it has two sides the advantages and disadvantages .

				books more because you do not need electricity to generate them I am the type of person who loves reading a physical book one with no images so I can see how far my imagination can go.			
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The consensus emanating from the participants' responses shows that mobile reading and mobile books were slowly becoming the more preferred reading medium compared to physical books. Three categories of responses emerged from this question. Fifty percent of the participants felt they preferred reading mobile books only. Some reasons for their preference included portability and the convenience of audio books. Those that preferred reading both mobile books and physical books constituted 25% of the participants and the remaining 25% said they still preferred reading physical books only. They felt that physical books were more engaging.

***Focus group interview question ten***

This question was designed to elicit from participants how much they felt mobile reading devices had altered their literacy practices and identity as a reader. The question was meant to have the participant evaluate the mobile reading journey they had undertaken during the study and make value judgements based on these experiences to decide if they had become a mobile reader.

10. Would you say you are changing into a mobile reader?

***Responses to focus group interview question ten***

<b>10. Would you say you are changing into a mobile reader?</b>							
Focus Group 1	1	4	7	11	14	17	20
	Yes, I think I am beginning to change.	No, I still read physical books.	I would say I am changing into a	Yes, I think I am changing into a mobile reader.	I would say that but I'm not so sure because I	I practice both but I think I'm becoming	I think I am changing into a mobile reader.



			mobile reader because most of the time when I am at home I just take my tablet then go to the website I want to read.		balance between physical and mobile reading. But at home, I'm more of a mobile reader and at school a physical reader.	more of a mobile reader.	
Focus Group 2	3	6	9	13	16	19	23
	No	No	I think it's both ways I still read physical books but I also read mobile books when I can.	Yes, I am changing into a mobile reader.	Maybe.	Not much.	Not exactly permanently but I still retain myself and pick up and read two or three physical books.
Focus group 3	2	5	8	12	15	18	21
	Yes, mobile reading has changed the way I read.	I think so in small stages.	Indeed I am.	I would say that though but to a very small extent, I prefer reading physical books.	No, because there are far more hindrances therefore I fall back to physical.	I am becoming a mobile reader.	I think both.

The participants expressed three opinions in response to this question. 26% represented those participants who felt they had not changed in any way and still considered themselves physical book readers. 39% of the participants have still torn apart and were either not sure or practised both mobile book reading and physical book reading. They could not make up their mind as far as their reader identity and literacy practices were concerned. The last group was made up of 35% of the participants who affirmed that they had changed completely into mobile readers. Mobile reading is slowly and gradually being adopted by the participants.

## APPENDIX S: EDITOR'S LETTER



Registered with the South African Translators' Institutes (SATI)  
Reference number 1000363

SACE REGISTERED

23 February 2021

**Report on PhD Thesis:** Ivan Bachisi (3456-055-6)

**Thesis title: THE IMPACT OF MOBILE READING DEVICES ON THE READING HABITS OF A  
GROUP OF ADOLESCENT LEARNERS IN ZIMBABWE**

This serves to confirm that I edited substantively the above document including a Reference list. I returned the document to the author with some tracked changes intended to correct errors and clarify meaning. It was the authors' responsibility to attend to these changes.

Yours faithfully

A handwritten signature in black ink, appearing to read 'K. Zano', written in a cursive style.

Dr. K. Zano

Ph.D. in English

[kufazano@gmail.com](mailto:kufazano@gmail.com)/[kufazano@yahoo.com](mailto:kufazano@yahoo.com)

0631434276