

# **A STUDY ON MULTIMODAL AFFORDANCES AND THE INTERPRETATIVE PERSPECTIVES OF LEVEL 300 MEDIA STUDIES STUDENTS**

**Thesis submitted**

**by**

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## DECLARATION

I, Thifhelimbilu Emmanuel Sikitime, hereby declare that this thesis for a Doctor of Philosophy degree in English, hereby submitted at the University of Venda, has not been submitted previously for a degree at this or any other university, and that it is my own work in design and execution and that all reference material contained therein has been duly acknowledged.

Signature:



Date: **September 2020**

## DEDICATION

To

My Mother, Mrs MV Radzilani

My stepfather, Mr RM Radzilani, who instilled discipline and planted a profound passion for knowledge into my life.

My wife, Caroline

My children Unarine, Mufunwa and Andani

And my siblings Christopher, Zwakale and Sandi

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## ABSTRACT

Multimodal representation is a pervasive feature characterising contemporary communication practice. Immersed in a visual culture, contemporary students and digital natives are as a result inundated with a plethora of texts that come with peculiar semiotic designs and unique affordances. This may suggest a potential textual shift with new requisite literacies in both public and academic domain.

This study aimed to explore and describe the affordances of semiotic designs as ensembles and also to evaluate the interpretative repertoires on selected multimodal texts. The study adopted semiotics, social semiotics and a multimodal critical discourse analysis approach to establish the communicative functions of semiotic modes and their semantic significances on selected multimodal texts. Relevance theory in line with Forceville (2014) was adopted to interpret and evaluate respondents' interpretative perspectives and the aptness of inferences given in the context of a given multimodal text.

The study adopted a context-based, qualitative action research methodology with explorative and descriptive design orientation. Purposive sampling was used to identify University of Venda level 300 Media Studies students as study's respondents. For data collection, the study used an administered test adapted in line with Chan and Choo's (2010) Multimodal and Multiliteracies Assessment Framework. The test evaluated respondents' interpretations of semiotic designs and the communicative functions of semiotic modes as used on a given multimodal text. This was delimited on respondents' interpretations of: typographic features of linguistic design, affordances of colours as a visual semiotic element; inferential meaning given to the affordances of space and position as elements of spatial semiotic design. The study also evaluated respondents' interpretations of literary devices and their narrative effect on a given multimodal text.

The study established that, semiotic modes can be used to convey both implicit and explicit meaning. Semiotic modes as ensembles make up compositional, ideational and relational meaning of a text and these may not be easily available to novice readers. It is for this reason that, respondents' inferential implicatures in this study were mainly incongruent to the central meaning as evaluated in the context of a text. Decoding texts

with multiple semiotic designs is a nonlinear process which requires a heightened level of critical literacies with developed cognitive and perceptual skills.

The study recommends the adoption of a multiliteracies pedagogy that accounts to all semiotic designs and modes in addition to the dominant linguistic semiotic design which characterises the monomodal print based literacy offering. The study also recommends the adoption of a social semiotic perspective in the reading of both monomodal and multimodal texts as a preparatory base to requisite critical literacies associated with multimodal epistemological pedagogy.

**Key words: Affordances, Digital Natives, Interpretative Repertoires, Multiliteracy Pedagogy, Multiliteracies, Relevance Theory, Semiotic Designs, Semiotic modes**

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## CHAPTER ONE

### INTRODUCTION

#### 1.0 BACKGROUND TO THE STUDY

Multimodal representation is one of the dominant features characterising the contemporary communication landscape (Kress, 2003). The central premise underpinning multimodal representation is that meaning is made with different semiotic resources, each offering distinct potentialities as well as limitations (Jewitt, Bezemer & O'Halloran 2016). In addition to alphabetic print texts, contemporary students are now exposed to a wide range of texts with semiotic designs that allow distinct affordances.

In his study on Literacies in the Media Age, Kress (2003:1) established that “multimodal representation is made easy, usual, ‘natural’ by improved innovations and the capacity associated with Information and Communication Technologies.” These include among others: improved advances in internet browsers (Harrison, 2003); a rapid upsurge in the use of digital screens (Mills, 2010) and the seamless convergence of media platforms which traditionally operated as discrete entities (Leu, 2000). These communicative developments suggest a potential textual shift posing a new challenge to the traditionally paper-based literacy practices which emphasised the verbal text or linguistic sign as the central mode of meanings.

The new types of texts which are ubiquitously dominating contemporary communication landscape in line with contemporary communicative developments include, among others, hyper-textual narratives, chat sites, 3D animations, multimodal websites and virtual reality representations. As a result, a suggestion is being made for school-based reading and writing instruction to change so that they start to reflect the multimodal and interactive nature of today’s communicative terrain (Alvermann, 2017; Hutchison & Beschoner, 2015; Jewitt, 2006; Unsworth, 2006; Cope & Kalantzis, 2000).

The call to reconceptualise what it means to be literate in the 21<sup>st</sup> century is primarily instigated by explosive revolution in contemporary communication domains. Although these changes are so pervasive outside the classroom, proponents of multimodality have argued for a responsive curriculum which provides requisite base for students to

effectively engage with content and concepts presented across semiotic modes and semiotic designs. Cope and Kalantzis (2009:3) argue that, “a time has come to supplement alphabetic literacy with a pedagogy of multiliteracies that will enable students to read and write multimodal texts which integrate other modes with language.” Baguley, Pullen and Short, (2010:4) observed that the proliferation of technology has in turn moved the notion of literacy from being a singular concept which has tended to relate to written and oral language to the notion of literacy practices which encapsulate a broader notion of literacy inherently related to specific cultural contexts.

Deliberations on multimodality are wide with some portraying it as a field in its infancy (Kress, 2001; Macken-Horarik, 2003) whilst others see it as an impactful domain hence vehemently arguing in favour of a complete reconceptualization of the text and a subsequent reappraisal of literateness or what it means to be literate (Gee, 2005; Brown, & Cooper, 2007; Jewitt 2008). The drive for a complete reappraisal is, however, not uniform nor universally embraced despite the pervasive ubiquity of multimodal representation. The trend portrays developed nations already on an upward trajectory with multimodal representation and multiliteracies curricula projected as ideal and seen as intertwined pursuits that should characterise academic literacy instruction in a visually immersed culture and an information-rich digital society.

Mills and Exley (2014) explored a campaign drive for the reconfiguration of Language and Literacy conducted by Australia. As one of the developed nations, their central objective was to understand how narrative meaning of words work in combination with meaning represented in other modes. The drive was also intended to explore how persistent coarticulation of semiotic modes would affect the reading, writing and literacy instruction in their educational institutions.

The drive was followed by the adoption of an Australian English Curriculum reform with three strands: Language, Literature and Literacy. According to ACARA (2014:5) the Language and Literacy strands were designed to:

*engage students with understanding the English Language and understanding repertoires of usage whilst on the other hand, the literature strand aimed at*

*engaging students in understanding, appreciating, responding to, and creating literature, including multimodal texts.*

Interpretative skills that students are to develop in line with this drive include among others: establishing how non-linguistic items (images, symbols) can augment, modify or transform meaning of words or how visual, gestural, spatial and audio design elements embedded in a given multimodal text are interpreted or decoded with contextual relevance (Exley & Mills, 2014).

In a similar pursuit, an ethnographic case study by Kenner and Kress (2003) explored how Spanish, Chinese and Arabic bilinguals used directionality, spatiality and graphic marks to realise meaning and express their identities. Remarkable changes are as such noted in the way contemporary students are in general making meanings and building multiple knowledge. This could be attributed to the affordances of technology which makes available other semiotic resources thereby transforming monomodal learning practices into multimodal learning practices.

In developing nations, multimodality literacy is sporadic with emphasis still on monomodal print-based literacy. A study by Ajayi (2015) explored the English Language and Literacy curriculum in Nigeria and established that, although it focused primarily on high school curriculum, emphasis is still exclusively on language-based topics such as adjectives, tenses, and verbs without paying attention to students' home literacies such as surfing the web, emailing, texting, blogging, chatting, posting messages and images on social network sites, and reading and writing multimodal texts (Ajayi, 2015:217). This could suggest the existing disparities between developed and developing nations attributable to poor infrastructural resources and minimal investment by developing states into digital educational technologies.

South Africa's case as a developing nation is peculiar with a notable upsurge in digital technologies and visual immersions. The online user penetration in South Africa is, according to Clement (2020), currently at 56.3% and this is slightly higher compared to Nigeria with 46.6 %. Tunisia and Morocco are significantly higher with a user internet accessibility at 66.8% and 64.3% respectively (INTERNET WORLD STAS, 2019). The impact this accessibility has on readers' awareness of digital genre conventions and the

multiple semiotic designs is a central feature of multimodal representation and requisite multiliteracies.

Jordaan and Jordaan (2013) contend that, although multimodal literacy is generally considered an important feature in South Africa, it has not (yet) achieved enough recognition for integration into the tertiary education curricula. The response by South African universities in reconceptualising academic literacies is as such sporadic, relative and generally low. This could be broadly attributed to the state of autonomy that South African Universities possess over curriculum content development and modalities of pedagogic delivery.

While some institutions are starting to acknowledge the potential textual shift instigated by developments in the contemporary communication domain, the implication this has on requisite literacies, epistemology and pedagogic practices is not exhaustive nor expansively explored.

Sporadic endeavours by some South African based universities are starting to explore literacy offering in a visually immersed multimodal environment. Such institutions echo what Huff and Sebolai (2015) identify as a right step towards “academic literacy curriculum renewal.” For instance, at the University of Cape Town, its Academic Literacy Development Unit cautioned against an over-emphasis in the analysis and the teaching of the mode of writing in an era which is ubiquitously characterised by interconnectedness, media convergence and the plethora of texts types displaying distinct semiotic orientations (Archer, 2011:3).

Along the same lines, Pillay (2010) attached to the School of Language, Literacies and Media Education at the University of KwaZulu-Natal argues for the development of a responsive academic literacy programme which, among others, “acknowledges the plurality of text types with different semiotic orientations.” This proposition sets a positive tone towards multiliteracies initiatives where academic practitioners would start to embrace other semiotic modes (gestural, spatial, visual and acoustic) in addition to language as potential meaning modes with different affordances.

Underpinned by its corporate institutional mission, the University of Venda aims to “produce graduates imbued with knowledge, skills and qualifications which are locally

relevant and globally competitive” (University of Venda, 2020). This strategic mission equally calls for recurring reflections by all stakeholders within the university and in particular, academic practitioners who are custodians of content development, innovations and knowledge transmission. In line with this institutional position, academicians may need to reconfigure their epistemological content and pedagogic interventions in line with the dictates emanating from the contextual situation and global realities. It is therefore valid to concede that it is no longer a matter of choice for academic institutions to embrace the multiple lifeworlds and language forms as well as the cultural and linguistic diversity that characterise 21<sup>st</sup> century (Cope & Kalantzis, 2000).

## 1.1 PROBLEM STATEMENT

The problem that motivated this study is a perceived disconnection between students' reading, literacy competencies and the rapid developments that characterise 21<sup>st</sup> communicative practices. Students in the 21<sup>st</sup> century are exposed to multiple text types: hypertexts, digital web-based monomodal and multimodal texts; Digi-fiction, graphic novels, manga, text-talk novels and doodle fictions (Friesen, 2011; Dalton, 2012; Zyngier, and Viana, 2016). These texts relatively make use of discrete semiotic systems – linguistic, visual, gestural, spatial and acoustic with distinct affordances. Despite the pervasiveness of multimodality and the multiplicity of texts type in public and contemporary communicative domain, the dominant mode of communicative practices in academia is still dominated mainly by linguistic semiotic system with its major emphasis on letters, words and print texts. As a result, the affordances given to non-linguistic modes and requisite interpretative skills is underexplored for the benefit of students' academic development.

Also, meaning given to non-linguistic signs (semiotic resources) is not overt, fixed nor universal. It is determined by genre contexts and the semiotic conventions which could be discipline or culturally specific. Kress (2003) noted that semiotic resources like image, often referred to as iconic signs, do not have a more “natural” relation (of resemblance) with the world than language, and do not make meaning universally. This therefore implies that, in addition to basic reading and comprehension skills, contemporary readers and students alike would, in addition to reading print texts, need more intricate set of skills which seemingly they do not have, and these include critical thinking skills such as making correct inferences with plausible deductive and inductive reasoning capacity.

There are also mixed perspectives on what characterises literateness in the 21<sup>st</sup> century. Those within the traditional literacy orthodoxy perspectives still perceive new emergent literacies as a disruptive development contributing to a decline in fundamental reading and writing competencies. Conversely, proponents of multimodality see new literacies as inevitable development which both digital immigrants and digital native generation would need to embrace. This is a dilemma of epistemological and pedagogic concern facing contemporary literacy and language practitioners.

So, a concerted effort has to be made to reconcile these divergent perspectives lest digital native generation perceives traditional literacy practices as redundant and relegating it to a practice of marginal significance. Similarly, unless decisions on core assessment literacy standards are based on empirical studies, there would be a continuous blame-shifting game at the same time, missing the gains which often come with change.

## **1.2 ASSUMPTIONS**

The following central assumptions underpin the study:

1. Semiotic modes make meanings differently, and the meanings made are not always available to or understood by readers;
2. Signs (linguistic or non-linguistic) are discipline-specific and socio-cultural products; hence they are subjected to wide interpretations often dominated by hegemonic cultural ideals.

## **1.3 AIMS OF THE STUDY**

The study has two aims and these are designed to:

1. Explore the affordances of integrated semiotic designs and their respective semiotic modes in selected multimodal texts;
2. Describe and evaluate the interpretative repertoires displayed by level 300 University of Venda Media Studies students when decoding texts with integrated semiotic designs and associated semiotic modes.

## **1.4 STUDY OBJECTIVES**

To achieve the aims of the study, the researcher identified the following research objectives, designed to:

1. Evaluate the level of awareness that University of Venda level 300 Media Studies students have on digital genre conventions, multimodal affordances and semiotic designs that constitute multiliteracies framework.

2. Examine the interpretations of visual semiotic designs on selected multimodal texts by University of Venda level 300 Media Studies students;
3. Scrutinise the interpretations of spatial semiotic designs on selected multimodal texts by University of Venda level 300 Media Studies students;
4. Study the interpretations of literary devices on selected multimodal texts by University of Venda level 300 Media Studies students;
5. Assess the interpretative perspectives given to typographic features of linguistic semiotic design by University of Venda level 300 Media Studies Students.

## 1.5 RESEARCH QUESTIONS

The main research question for this study is:

*How are semiotic resources used to construct meaning in selected multimodal texts and what are the interpretative skills displayed by University of Venda level 300 Media Studies students?*

The following sub-questions were developed to address the main research questions:

1. To what extent are level 300 Media Studies students at University of Venda familiar with digital genre conventions and the affordances of semiotic designs that constitute multimodal literacies?
2. How do level 300 Media Studies students interpret selected visual semiotic resources as used in selected multimodal texts?
3. How do level 300 Media Studies students make sense of the spatial semiotic designs in selected multimodal texts?
4. To what extent are University of Venda level 300 Media Studies students able to establish the types of literary devices and their narrative effect on selected multimodal texts?
5. What are the interpretative perspectives given to typographic features of linguistic semiotic designs by University of Venda level 300 Media Studies students?



## 1.6 JUSTIFICATIONS FOR THE STUDY

Requisite literacy core competencies are not static. They often evolve in response to the contextual factors with a bearing on meaning-making and communicative practices. A call for the reconfigurations of Academic Literacy programmes in response to the seismic changes in contemporary communication landscape is plausible therefore in this context. Notable changes in contemporary communication domains such as a seamless convergence of media platforms, blending of texts genres and the intercoupling of semiotic designs necessitate a relook at the requisite core reading and writing standards in the 21<sup>st</sup> century communication era.

Most of the previous studies on reading focused primarily on monomodal print-based alphabetic texts. Assessment of reading competencies associated with monomodal print-based texts often included establishing phonemic awareness, vocabulary and register competencies, comprehension and fluency. Decoding multimodal texts which make use of intercoupled linguistic and non-linguistic signs poses a new challenge to all academic practitioners hence a study on multimodal affordances and requisite interpretative perspectives is necessary for the formulation of informed pedagogic and epistemological interventions.

Also, multimodality assumes that all communication transactions are multimodal in nature. Proponents behind multimodality maintain that monomodal print based texts can also be interpreted, decoded and comprehended better within a multimodal perspective. This perspective is supported for its potential to enrich reading and comprehension where all textual features are interpreted as potential signifiers with subtle communicative and semiotic function. For instance, the use of different typographic features such as font sizes, patterns and textures, textual alignment, either justified, centred or indented are considered conventional signifiers worth exploring.

It is also plausible to concede that the need to develop students' critical literacies is increasing with rapid seismic changes in the contemporary communication landscape. Critical literacy is aimed at promoting multifaceted reading competencies: understanding the cultural and ideological assumptions that underwrite texts (Morgan, 1997) as well as enabling readers to deconstruct and uncover the cultural and cross-cultural codes

embedded in discourse (Gavriely-Nuri, 2018). A study on multimodal affordances is therefore necessary in an era characterised by a massive flow of interconnected content with mediated meaning constructed in both linguistic and non-linguistic modes.

Further, the study contributes new knowledge to Discourse Studies, Academic Literacies, Arts and Languages. The findings in this study provide empirical evidence on how traditionally disparate disciplines can in future be adopted to serve as the basis for interdisciplinary epistemological synergy.

## 1.7 DEFINITION OF TERMS

**Affordances:** The inherent qualities of a mode to communicate meaning which culture defines and recognizes as acceptable (Albers & Harste, 2007). It is also defined in Kress (2000) as the meaning making potential of a sign. In this study, the term affordances refers to the inherent quality of a sign to signify or represent specific concepts, thoughts, meanings in a given context.

**Cognition:** Cognition is a mental process of knowing, including aspects such as awareness, perception, reasoning, and judgment (Pawlick & d'dewalle, 2006). Lumen (n.d) describes cognition as a “field of psychology dedicated to the examination of how people think and process emotion, creativity, language and solve problems.” In this study it denotes the aptness and plausibility of argument that respondents make, which marks the level of logical inferences when decoding semiotic modes in a given text.

**Design:** Refers to how people make use of the resources available to them at a moment to create their representations (Albers & Harste, 2007). It is also defined as the conceptual side of expression which is separate from the actual product itself (Kress & van Leeuwen, 2001). It is one of multimodality’s contentions that signs as signifiers portray aesthetic features, compositional and critical dimensional features. When design is viewed in totality, all these design features are decoded with a social semiotic perspective

**Framing:** Refers to a way in which elements of visual composition operate together, are spaced, show dis/continuities in colour, connect (or not) with each other, "move" on the canvas, and so on (Kress & van Leeuwen, 2001). It is also the grammar of non-linguistic texts (Kress & van Leeuwen, 1996). In this study, framing also entails how semiotic designs were used coherently to achieve either semantic enhancement or reiteration

**Materiality:** It refers to the materials used to represent meaning that a culture sanctions or supplies to its members (Albers & Harste, 2007). Jewitt (2009) used the term modal affordances to address the potential limitations of a mode to express and represent the intended communicative thought. It is also defined in Price (n.d) as a product of the work of social agents which shapes material, physical ‘stuff’ into meaningful ‘stuff’, that is, into

cultural / semiotic resources. It is expanded in this study to address the inherent qualities of a sign, whether iconic, symbolic or indexical and its inherent depictive qualities.

**Multimodal representation:** Doughan (2011:26) defines multimodal representation as the incorporation of both visual and verbal resources into a narrative text. Albers and Harste (2007) view multimodal representation with an understanding that communication is comprised of modes, forms within various sign systems that carry meanings that a social collective recognises and understands. It incorporates semiotic designs including visual, linguistic, gestural, spatial and acoustic in a cohesive ensemble that convey an intended conventional meaning.

**Multimodal text:** These are texts which use multiple modes including images, symbols, spatiality and visual variables as depictive and signifying resources (Walsh, 2010). A similar interpretation is captured in Correoso-Rodenas, (2020) as texts which combine two or more semiotic systems. They are composite feature of emergent, new and associated multiliteracies (Bearne, 2012). Examples of multimodal texts highlighted in this study include digital and print texts with at least two or more semiotic designs.

**Semiotic resources:** Semiotic resources are means of meaning-making; they cover the actions, materials and artefacts used for communicative purposes (van Leeuwen, 2005). They are also used interchangeably with the term semiotic modes which are defined in Bezemer and Jewitt, (2009) as a set of socially and culturally shaped resources used for making meaning. Examples of modes referred to in this study are various semiotic elements from four semiotic designs highlighted in Rush (2003) namely: visual, gestural, spatial and linguistic design.

**Traditional literacy:** Being literate in traditional perspectives meant an ability to read and write monomodal print-based text. A simplified and uncomplicated traditional notion of literacy is that it consists of textual practices in which the text is an alphabetic script written on a page that is read for meaning by a reader (Baguley et al , 2010). One of the primary distinctive features associated with traditional literacy is its emphasis on linear reading and the monomodal formalities of a written language (Cope & Kalantzis, 2000).

## 1.8 DELIMITATION OF THE STUDY

Delimitations reflect the parameters used in a study by the researcher to narrow the scope of enquiry. It encapsulates the boundaries, exceptions and reservations inherently unique to a particular study (Theofanidis & Fountouk, 2018). The current study sought to explore the affordances of semiotic modes and the interpretive perspectives that students display when decoding semiotic modes on multimodal texts. Semiotic designs comprising multiliteracies framework are linguistic, spatial, visual, gestural and acoustic. The current study excluded the affordances given to acoustic semiotic design which examines the narrative effects of sound elements and its semantic contribution to a multimodal text. The decision to exclude acoustic design was mainly on resource implications and time constraints which were beyond the scope of this study.

The study also purposefully sampled level 300 Media Studies students at the University of Venda as respondents. The decision was based on pre-set parameters and respondents were sampled based on their potential to generate rich data for the study. Also, although majority of students in academia as digital natives are exposed to digital genres, Media Studies students majoring in English were generally well placed to provide rich data for the study.

## 1.9 OUTLINE OF THE STUDY

### **Chapter 1: Introduction and background to the study**

The chapter explores the background to the study outlining the study's aim and objectives, research questions, problem statement, the significance of the study, and definition of operational terms. The chapter sketches developments in contemporary communicative landscape and how they shape meaning-making practices, new emergent literacies, and pedagogic practices.

### **Chapter 2: Literature review**

The chapter provides a critical account of the evolution of meaning-making practices and communicative practices with a bearing on literacy core standards. A discursive account is given on traditional literacy perspectives, new literacies, and multimodal representations and requisite multiliteracies. Semiotic designs and their composite semiotic elements are expounded. The chapter also introduces a critical account of critical literacy perspectives and the major propositions which underpin multimodal affordances. Critical literacy perspectives and its provisions on subjective interpretative perspective is highlighted.

### **Chapter 3: Theoretical framework**

The theories which underpinned the study are introduced in this chapter. Multimodal Critical Discourse Analysis (MCDA) explains the interpretation of an ensemble of multiple semiotic modes as used on a given text. Semiotics, Social Semiotics (SS) and Visual Social Semiotics (VSS) are adopted to explore the interpretation signs as signifiers or referents and the depiction of semiotic modes as cultural resources underpinned by social conventions.

### **Chapter 4: Research methodology and design**

The chapter highlights the research design and methodology applied in the study. Research paradigm and the adopted interpretive framework are highlighted. The applicability of the adopted design is expounded in line with the central enquiry of the study. The last section of the chapter gives an account of data collection methods, data

analysis procedure, population, sampling methods, the context of the study and applicable ethical considerations adhered in the study.

### **Chapter 5: Presentation of findings**

The chapter presents findings of the study. It covered demographic profile of participants; their awareness on multimodal genre conventions. The chapter presents findings on respondents' interpretation of visual semiotic design; spatial semiotic design and their interpretation of literary devices on multimodal text. The last section presents respondents' interpretation of typographic features of linguistic design.

### **Chapter 6: Discussion and interpretation of findings**

Data is analysed thematically, and relevance theory is used to evaluate the aptness of respondents' inferences in the context of a given semiotic mode. Findings of the study are discussed, interpreted and corroborated by available literature.

### **Chapter 7: Summary, recommendations and conclusion**

This chapter presents an overview of the study with a summary of major findings on responses given based on administered test. The chapter concludes by a discussion on limitations, recommendations and concluding remarks.

## **1.10 CONCLUSION**

This chapter presented the introduction and background to the study. Topical issues on multimodal representations were raised. Multimodality as an emerging trend in the contemporary communicative space was explored in line with the implications brought on literacy standards, epistemology and pedagogic instruction. The chapter further spelt out the problem of the study, aims, and purpose of the study, study objectives, research questions, and assumptions. The significance of the study was also expanded with subsequent sections providing definitions of operational terms and delimitation of the study. The chapter outline provided an overview of the entire study. The next chapter reviews literature in line with the central enquiry of the study.

## **CHAPTER TWO:LITERATURE REVIEW**

### **2.0 INTRODUCTION**

The preliminary section of this chapter provides a brief review of literacy and how it has transformed with time and the contextual factors that determined literacy standards in different periodic era. Traditional Literacies (TL) perspectives are highlighted with an infusion of New Literacies (NL) and multiliteracy perspectives. Subsequent sections provide critical accounts on multimodality, multimodal affordances, and communicative functions of multimodal texts and associated requisite reading competencies. The chapter concludes with a review of issues on multimodality, critical literacies, transferability of concepts and implications for reading and cognition.

### **2.1 EVOLUTION OF LITERACIES**

Literacy is a broad concept which has evolved across generations and historical periods. The concept has evolved across regions and the inevitable push factors are attributed to human, cultural, and technological impetus (Smith, 2011; Mayfield, 2015). A snap preview on some of the dominant eras highlights a series of systematic changes that humanity has had to grapple with as a result of contextual challenges and innovative developments. Changes brought by innovations have rendered some skills redundant. . A strong argument is that the multi-wave of literacies cannot be understood, reconceptualised without the initiation into the monographemic and alphabetic. In order to deconstruct, we must initially construct as Derrida (1986) famously claimed, deconstruction is the process of 'sawing off the branch on which one is sitting.' Later, Gilles Deleuze was to take up the same trope in arguing for a thousand plateaux of meaning (Felix Guttarri, 1996)

#### **2.1.1 LITERACY PRACTICES IN SUMERIAN SOCIETY**

Hugo (2003) highlights the conceptualisation of literacy and standards adopted by societies within a given historical, regional and socio-political period. Each period emphasized diverse skills that humanity at the time had to embrace to efficiently execute or render specific communicative tasks. The first group, identified in Hugo (2003) is the



*Sumerian society*, which mainly dealt with trading accounts; so, they would often engage in business transactions that had to be communicated, recorded and later preserved. With the print industry not yet advanced; and no papers yet invented to write on, they had to devise means through which they would communicate, record and preserve their transactions. The *Sumerian*, as a result, devised a writing system identified in Veldhuis (2011:68) as “Cuneiform.” This system was created in the late 4<sup>th</sup> millennium BC and began as a system of pictographs inscribed on clay tablets where inscriptions would be done using sharpened reed stylus. Information written on the clay tablet would often be baked and preserved if permanence was significant or else recycled for later use if the information was less significant (Cooper, 1996; Veldhuis, 2011).

### **2.1.2 LITERACY PRACTICES IN MEDIEVAL EUROPE**

The second notable stage with distinct literacy practices was in *medieval Europe*. This period introduced different forms of reading like, the “per cola et commata” which according to Petrucci (1995) involved setting out lines to make more sense for reading aloud so that text, mainly with gospel content, could be more comprehensible to the less scholarly brethren. Subsequent developments led to “Carolingian revolution” which saw the introduction of book production, thus introducing scripts which were not only new but clearer and legible (Briggs, 2000). Texts produced at this stage were more accurate than the preceding scriptoria, lectionary and visigothic manuscripts respectively (Tillotson, 2005). At this stage printing was developing with requisite literacies primarily aimed at enforcing a common religious dogma across the world (Hugo, 2003) and for the purposes of effective administration and documentation of government proceedings (Tillotson, 2005).

### **2.1.3 LITERACY REVIEW IN PHARAONIC EGYPT**

In her Literacy Review of Pharaonic Egypt, Zinn, (2013) noted how multifaceted literacy was conceptualised; thus, making it difficult to determine what exactly it meant to be literate in ancient Egypt. In her close observation, she noted that literacy was viewed along social class, profession and occupational responsibilities; culture and domain functionalities. The upper class was occupied mainly by priests, scribes and the officials

serving in the military and administrative capacity. Ability to read and write was mandatory for members of this class since they were expected to sign important documents in their respective designations.

Zinn (2013) further observed that, with complementary functions, representation was characterised by different patterns with hieroglyphs/symbols, hieratic and/or demotic representations. Literacy also involved sculptures and the carving of stones with signs embedded with cultural symbolism and mythologies. The devices or platforms to write on included plates of animal bone with inscriptions. Large plates were often reserved for recording royal burials and later long religious and magical texts and biographical inscriptions were introduced (Zinn, 2013).

Baines (2007) also noted how literacy evolved in Egypt with developments and the establishment of new kingdoms. For instance, the Persian Egypt which had become cosmopolitan by then, welcomed the introduction of additional representations: Phoenician graffiti and monumental hieroglyphics. Ray (1994) also observed how mummy labels were used for the construction of meanings in different contexts in Egypt while Thomson (1994) noted how literacy diversified in Ptolemaic Egypt where Greek started to replace Egyptian language with an increase in written material and an introduction of new schooling programmes and a subsequent increase in literacy levels.

It is plausible to conclude that regional developments and the unique contextual realities across regions would often play a role when determining the requisite literacies that humanity would need to function optimally.

A comparative overview of traditional literacy and modern literacy perspectives affirms the evolving and pluralistic nature of literacy. It poses new challenges and opportunities with epistemological implications for both students and practising literacy/ language instructors respectively.

#### **2.1.4 EVOLVING CONCEPTUALISATION OF LITERACY**

Literateness in the traditional literacy perspectives implied the attainment of two dominant skills – an ability to read a print based linguistic text for comprehension and ability to write for clarity (Morgan, 1997; Smyth, 2015). Furthermore, a simplified, uncomplicated and

traditional view of literacy, is captured in Baguley, Pullen and Short (2010:2), who posit that “literacy in traditional standards entailed textual practices in which the text implied an alphabetic script written on a page to be read for meaning by a reader.” According to Dole, Duffy, Roehler, and Pearson, (1991) novice readers were expected to acquire a predefined set of skills that would sequentially be built towards comprehension ability of a written text.

Although reading and writing continue to be part of the indispensable components of literacy, emphasis on the attainment of two skills is according to Jewitt, (2003) sluggish and unresponsive to contemporary communicative developments that characterise the 21<sup>st</sup> information-rich era.

The 21<sup>st</sup> century is not only information rich; it is also marked by a significantly improved expanded access to information which is presented in different modes and platforms (Kress, 1997, 2003; Jewitt, 2008).

The need to redefine literacy and its assessment standards is therefore a compelling necessity in view of the developments characterizing the information rich digital society. For instance, Snyder (2002:3) on *Silicon Literacies* argues that:

We now need an expanded definition which recognises that reading and writing, considered as print-based and logocentric, are only part of what people have to learn to be literate and now, for the first time in history, the written, oral and audio-visual modalities of communication are integrated into multimodal hypertext systems made accessible via the Internet and the World Wide Web.

Advancements in Information and Communication Technologies (ICT) have thus made convergence of modes possible and an effortless exercise. Semiotic resources that were traditionally discrete are now integrated easily to produce a unified communicative text.

In addition to the written text, readers are increasingly exposed to texts with distinct modes of affordances. The notion of literacy is now expanded to accommodate new developmental realities which come with opportunities, challenges as well as epistemological and pedagogic implications.

## 2.2 NEW LITERACIES AND MULTILITERACIES IN THE INFORMATION RICH ERA

Exploring literacy in the media age, proponents of multimodality (Kress & van Leeuwen, 2001; Unsworth, 2011; Walsh, 2017) noted a potential textual shift which is characterized by two major communicative developments – a move from the dominance of writing to the dominance of images and a move from the dominance of the medium of the book to the dominance of the medium of a screen. A move such as this has also been debated as a transition from slate to screen in (Peck & Stroud, 2018) and in Stroud & Williams, (2018). The impact of this change poses new opportunities as well as challenges to language/literacy practitioners and students. A study by Pahl and Rowsell (2006) explored new literacy trends and associated practices. The study confirms propositions in (Kress, 2003) as well as in (Street, 1984, 2000) which respectively see new literacy as a social practice where new modes of meaning-making are introduced. In addition to reading and writing, contemporary students would now need new skills that should allow them to efficiently engage with new forms of texts which comprise complex and integrated semiotic systems (Chan, Chia & Choon, 2017).

Studies on requisite skills associated with new literacies have established interesting observations. Albers and Harste (2007) established a strong connection between arts, new literacy and multimodality. Semiotic sign systems which traditionally operated independently are now often integrated to constitute a semiotic and coherent text with multiple semiotic systems. Lankshear and Knobel (2003) used the term 'new literacy' in connection with the digital and high-tech world but with special emphasis on the shift in perspectives rather than on devices. Their contention is that emphasis should not be on the digital devices but on critically examining what is being said and how it is said through technological tools (ibid: 2003). Their argument suggests that new literacies require readers to critically read and interrogate messages which are made available through a range of media devices (Albers & Harste, 2007).

Cope and Kalantzis (2009) noted a change in representation practices in the era where iPods, wikis, blogs and SMS messages are common phenomena. Pedagogic implications on literacy practices in line with these developments are huge. For instance, Cope and

Kalantzis (2009: 10) have strongly advocated for the pedagogy of multiliteracies which among other things upholds:

accommodation of all forms of representations; replacement of the conception of representation as grammar; recognition of the enormous role of agency in the meaning-making process and a new defined role of students who are no longer passive recipients of information but active participants.

The proponents of multiliteracies also known as The New London Group in Baguley et al. (2010:5) proposed a shift of practice to a multiliteracies practice that among other things focused on the following:

Contending with multimodality and cross-cultural nature of texts offered by digital communication; providing opportunity for teachers to give students information using multiple texts and distinct media forms as well using various semiotic systems such as print, audio or spatial, gestural and visual.

It is not in keeping with the multiliteracies perspective to relegate one semiotic system at the expense of the other. The multiliteracies perspective challenges the traditional literacy perspective, which depicted literacy solely as grammar, lexicon, and semantics. Multiliteracies perspective is therefore predicated on semiotic systems cutting across reading, writing and speech into all the other available semiotic forms of communication Street (2000)

### **2.3 COMMUNICATION TECHNOLOGIES AND MULTIMODALITY**

Advances in technologies are rapidly revolutionizing communication practices in the modern era. Literacy is further expanded to accommodate new affordances, which are made possible by rapid developments in communication technologies. Notable advances with a significant bearing on communication practices and modal affordances include the multiplicity of communication media and the diversity of texts like website text, digital texts, animated graphic texts, podcasts, and electronic games (Baguley et al., 2010). These texts make use of different modes – linguistic, visual, gestural, spatial and acoustic each with varied affordances and conventions.

Kress (2003:16) identified three major developments attributed to the potential of technologies: “a radical social change, redistribution of semiotic power and the inherent power given to readers in making and disseminating meaning.” These developments have been reiterated widely. Anstey and Bull, (2006); Cope and Kalantzis, 2000 and Kalantzis, (2004) noted that there are significant changes in the way the world is represented. The way knowledge is constructed and the way we ascribe meaning have changed dramatically. Baguley et al. (2010) argue that all these changes are instantiation of semiotic redistribution, which is a typical feature of modern communicative practices.

In view of the emerging contemporary communication practices, the need for the development of responsive literacy programmes has become the bane of the times (Hugo, 2003; Evan, 2004; Gee, 2013). The most critical observation made is that reading in the contemporary era now also includes more pictures – still and moving and this trend warrants a reconsideration of what it means to be literate. Technology is now a major catalyst to semiotic and multimodal integration; it has thus far made the integration of semiotic modes modal integration an easy, usual and a natural process (Kress, 2003).

Multimodal representation is an inevitable communicative development hence it is valued for its merits and affordances (Warnick, 2001). Its merit is based on the capacity to complement all forms of literacies while at the same time embracing the construction of meanings through social action. Integration between Arts, technologies and multimodality is rapidly growing and as a result, paving new ways for New Literacies with associated skills on the part of literacy and language instructors and readers as well. Literacy practice which ignores communicative developments would therefore be considered unresponsive to glocal and global imperatives (Kellner, 1998, 2000; Jewitt & Kress, 2003; Kress, 2003; Jewitt, 2008;)

## **2.4 NEW SKILLS THAT UNDERPIN WITH NEW LITERACIES**

Albers and Harste (2007) identified design and composition as some of the new skills that are associated with new literacies. The design and compositional features of a text are the fundamentals of new literacies. Multimodal texts presented with design and compositional features would require a different approach to textual analysis for sustained

comprehension. The use of imagination, inference, visualization and problem-solving are critical for this realization.

The next sections elucidate further on an existing link between new literacies, multimodality and multiliteracies framework. Rush (2003) introduced multiliteracies framework highlighting major semiotic designs and associated semiotic elements with the requisite interpretative repertoires.

## **2.5 MULTILITERACIES**

The link between new literacies, multimodality, and multiliteracies is depicted as symbiotic (Cope & Kalantzis, 2000; de Silva Joyce & Gaudin, 2007). Multiliteracies as a theoretical framework, assumes that when readers understand the semiotic resources and their affordances, they are better placed to make sense of texts presented in multiple modes.

Adequate knowledge on the affordances of varied semiotic resources may provide requisite interpretative bases. The New London Group (1996), coined the term 'multiliteracies' in direct response to two central communication developments – linguistic diversity and the ubiquitous use of multiple modes of linguistic expression and representation. Linguistic diversity as modelled in Pütz and Mundt (2018) implied the need to accommodate a wide range of discursive modalities ranging from imagery, non-verbal communication, silence, tactile and aural communication as well as graffiti.

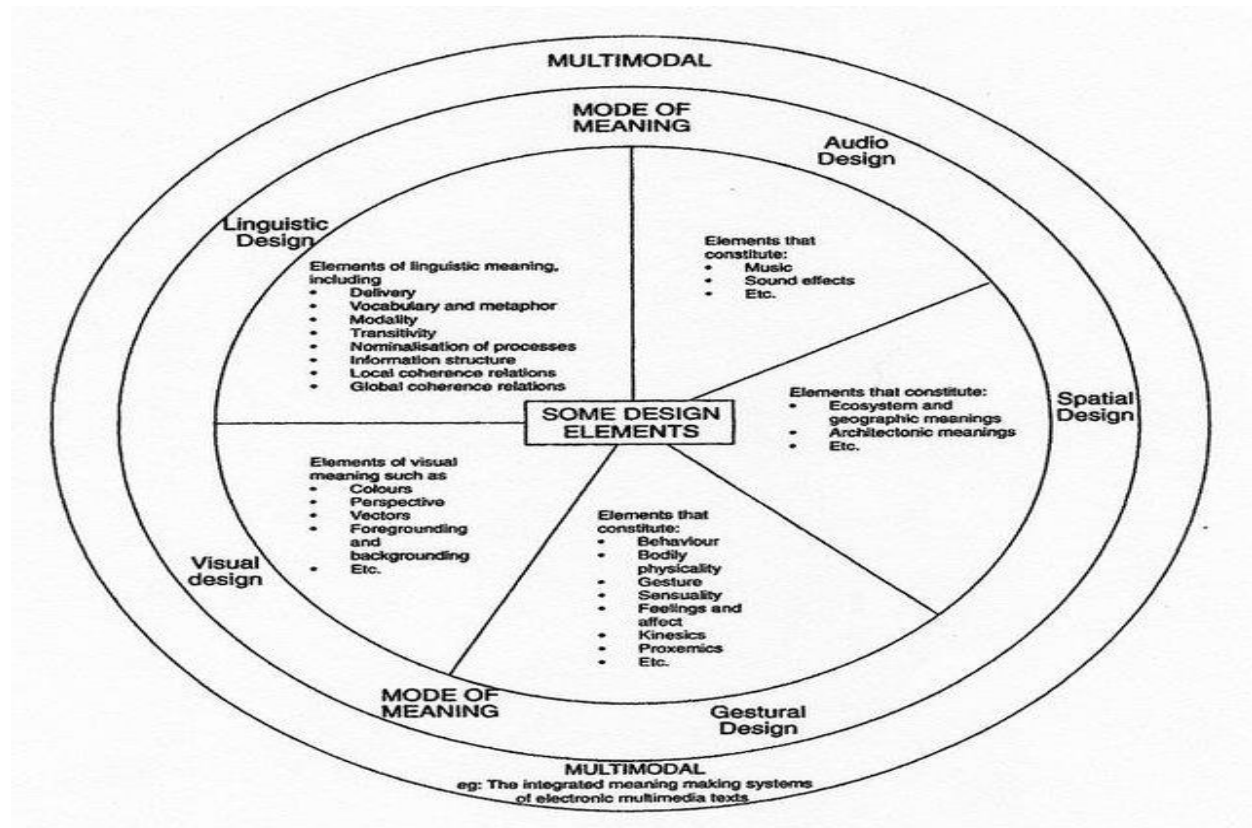
Chan, Chia and Choo, (2017) proposed that, multiliteracies should not be considered as prescriptive in nature. Instead, it is an approach that promotes the involvement of different perceptual systems of reading (Ibid.2017). Noad and Unsworth, (2007) equally argue that when separate communicative modes are used, separate literacies should be enacted. In addition to these, Jacobs (2013) views multiliteracies as an integral part of a diverse, multimodal and an information-based world. Kalantzis, Cope and Harvey (cited in Jacob, 2013:623) identified ten basic requisite skills for a person to be successful in an information-based society, namely:

Autonomy and self-direction; flexibility; problem-solving skills; multiple strategies or tackling a task; a flexible solutions-orientation to knowledge; to be collaborative

and communicative; ability to work productively with linguistically and culturally diverse groups; being intelligent in multiple ways; to be broadly knowledgeable; and an ability to engage with the different interpretative frameworks and contexts of specific information.

Rush (2003) used figure one overleaf to show composite features of Multiliteracies Framework. The framework illustrates five distinct categories of semiotic designs with associated semiotic elements. The semiotic designs are identified as linguistic, visual, gestural, spatial and audio/acoustic. The same categories were also identified as semiotic systems (Anstey and Bull, 2010) that are the basic features of multiliteracies framework. In this study the two terms - design and system - are used interchangeably as they refer to the same concept.

**FIGURE 1 : SCHEMATIC DEPICTION OF MULTILITERACIES PERSPECTIVE**



(Source: Rush 2003)



Multiliteracies framework as depicted in Figure one, section 2.5, identified five distinct categories of semiotic designs:

- a) Linguistic design,
- b) Visual design,
- c) Gestural design,
- d) Spatial design,
- e) Audio or acoustic design.

Each of the systems/designs in the framework is made up of semiotic elements or resources that can be used in a monomodal text cohesively integrated to produce a multimodal text. The semiotic properties of each element are distinct hence it is critical for contemporary readers to understand the dynamics of signs, meaning making and the specific considerations when interpreting texts made up of multiple semiotic systems.

The next section provides a brief discussion of semiotic designs and associated semiotic elements as shown in Figure one. Examples are given to elaborate how text designers integrate semiotic systems for a specific communicative purpose.

### **2.5.1 LINGUISTIC SEMIOTIC SYSTEM**

The linguistic semiotic system covers aspects such as vocabulary, alphabets, generic structure, and the grammar of both oral and written language (Anstey & Bull, 2010; Hall, 2013). Its focus is on the affordances of speech and writing (Jewitt, Bezemer & O'Halloran, 2016). An interactive model on reading suggests the importance of the following knowledge base for readers to decode linguistic items in multimodal texts: letter analysis, syntactic knowledge, letter cluster analysis, semantic knowledge and lexical knowledge (Lee & van Patten, 1995:191).

Jewitt (2005:318) observed that writing on screen-based representations is mainly for two reasons – naming and labelling elements. Reviewing written expressions on multimodal texts, she observed that:

Writing on screen functions to reference the values of specialist knowledge, authority, and authenticity associated with print and it takes a considerable amount of work to maintain writing as the dominant mode on screen (Jewitt, 2005).

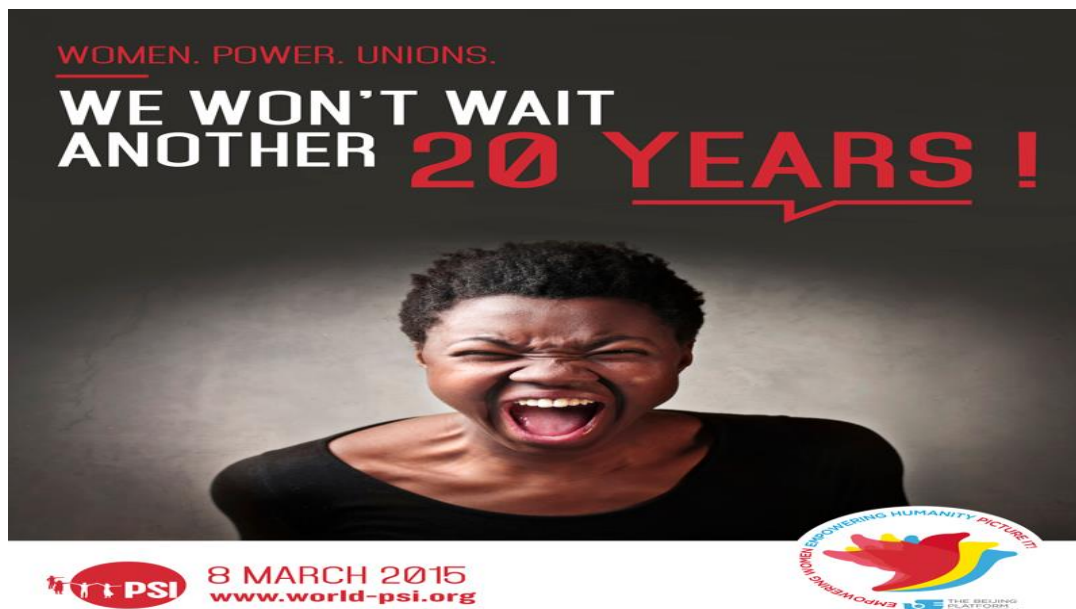
Attestations on the significances of these knowledge base on reading and comprehension is reiterated widely (Jackson & McClelland, 1979; Baddeley, Logie, Nimmo-Smith, & Brereton, 1985; Cunningham, Stanovich, & Wilson, 1990).

Although linguistic semiotic system is the most common and dominant mode of expression, written expressions in multimodal texts carry additional typographic features which may require further distinct interpretative awareness. These may include exploring font pattern, size and texture – capitalization or ordinary font; font size, thus, whether the size of letters is big, normal or small; the font formatting, thus, whether the font pattern is italicized, emboldened or ordinary.

The use of typographic features like capitalisation, font size, contrast, leading, kerning, hierarchy is a common practice in multimodal representation. Knowledge of these typography in addition to vocabulary, semantics and syntax is fundamental for readers if they are to make sense of the linguistic semiotic system on a given multimodal text.

Figure two below is an example of a multimodal campaign text by PSI, an organisation that advocates for women empowerment. Linguistic resources were differentially and cohesively used and yet reinforcing the same message – empowering women. Overt typographic features of the text which are part of the linguistic semiotic system are: CAPITALIZATION, or the use of upper case; font size and colour and the use of punctuation mark (!). The protesting statement “WE WON’T WAIT FOR ANOTHER 20 YEARS” is written in caps and in a relatively bigger font; while the PHRASE “20 years is written in bigger font, capitalized in red colour.

Figure two



(Source: ASU (2015) [www.world-psi.org](http://www.world-psi.org))

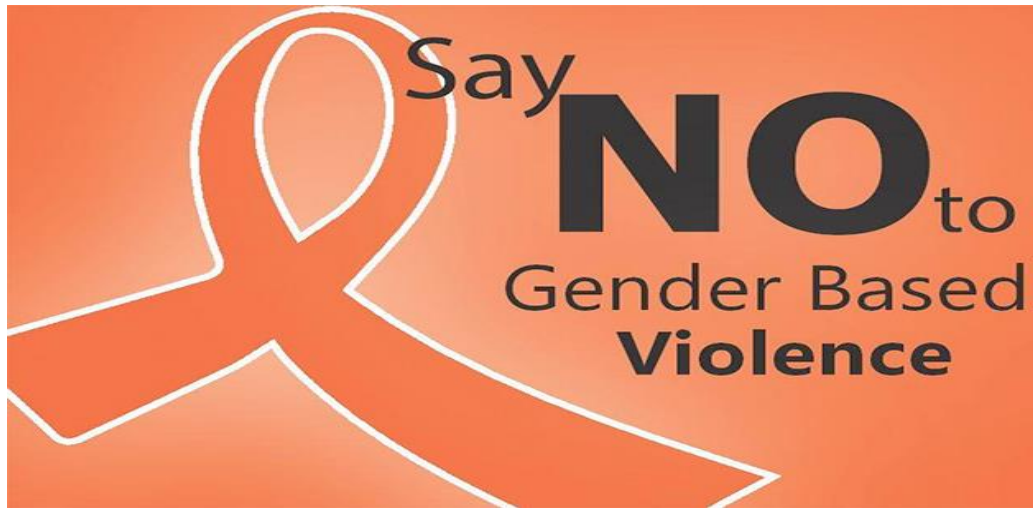
When making sense of the text above, readers may need to account for the following typical questions in keeping with multimodal literacy:

- I. Why are the phrases written in caps?
- II. Why are the given phrases in the text presented in red colour? What is the symbolic or semiotic significance of red colour in the context of this text?
- III. What is the role of an exclamation mark in the text?
- IV. Why are the words: “WOMEN.POWER.UNIONS” separated by a full stop and in relatively smaller font?

Similarly, the words “**NO**” and **violence** in figure three below are all written in bold. The text designer capitalized “**NO**” to mark an emphasis against **Violence**; on the other hand, **Gender Based Violence** is belittled to relegate the act of abuse to a lower detestable social ill.

Although it may not be obvious to readers, text designers use font size and style as elements of linguistic features to convey subtle connotative and denotative messages. Critical thinking skills including deductive reasoning and inferences are therefore key for correct interpretations of multimodal texts of this nature.

**Figure three**



(Source: Nunez, 2017 <https://www.ambergristoday.com/content/stories/2017/01/19/ad-campaign-kicks-against-gender-based-violence>)

### **2.5.2 VISUAL SEMIOTIC SYSTEM**

Contrasting the affordances of the linguistic semiotic system with that of a visual semiotic system, Kress (2003: 1259-1260) noted that:

“While the linguistic system is governed by the logic of time and temporality, visual semiotic system follows the logic of spatiality, organized arrangement and simultaneity.”

Semiotic resources which constitute visual semiotic system are varied. These may include the use of colours, vectors, perspectives, foregrounding and backgrounding (Rush, 2003). In addition to colours, Hall (2013) identified images - still or moving - as semiotic resources under visual semiotic system. Visuals can be iconic signs with mediated connotative or denotative meaning (Liu, 2013). In instances where visual imagery is used as metaphoric representations, readers would need to identify the symbolic meaning given to the signs and their contribution to the content and context of the text. By virtue of their depictive qualities, iconic signs allow text designers to represent actual events or things in the world as they are (Flowerdew & Richardson, 2018).

Figure Four below conveys a critical message of peace. Visual semiotic resources in the text include: two images of a dove (animate) features; human hands holding the symbolic

universal globe. The background of the text is blue in colour with linguistic signs complementing the background of the text.

**Figure four**



**(Source: <https://blog.madguy.co/21-september-internationalday-of-peace>)**

Decoding Figure four under section 2.5.2 will ideally involve the following typical interpretative skills: identifying the symbolic significance of the dove in the text; understanding the semiotic significance of blue colour in the context of this text; making logical inferences on why the globe is placed on the left and in human hands; making logical deductions regarding the position of each semiotic resource in the text – top, bottom, left or right.

Jewitt and Oyama (2001:136) coined the term “visual social semiotics” to give an account of semiotic resources with emphasis on what can be said and done with images, colours and other visual means of communication. In communicating specific messages, text designers therefore encode visual resources in multimodal texts with careful considerations of the context and conventions which are either cultural or discipline specific. In addition to these considerations, Roggers (2004) observed that text designers may also assess the environment, evaluate their interest and agency of the task and then use visual resources appropriately.

A study by Won and Westland (2017) cited references where colours were found to have different interpretations as used in different contexts. Black and blue colours were found to have different interpretations in different contexts with black at times associated with

fear, anger and expensiveness in (Aslam 2006). In Grieve, (1991); Grimes and Doole, (1998) black is associated with death, power and dignity. Similarly, blue was used in Madden, Hewett and Roth (2000), Paul and Okan (2010) to suggest a peaceful scenario and cold atmosphere respectively.

Hall, (2001) proposed three reading positions that readers would need when interpreting images in a text. The positions are categorized as dominant hegemonic reading, negotiated reading and oppositional reading (ibid: 2001).

### **2.5.2.1 READING POSITIONS AND INTERPRETATIVE PERSPECTIVES**

When readers identify with the dominant hegemonic position, they do not question the content but unquestioningly receive the message. This happens when both the sender or text designer and the reader share cultural biases (Hall, 2001; Chandler, 2017). Conversely, negotiated reading provides an opportunity for readers to negotiate meaning and its dominant meaning while oppositional reading, on the other hand, promotes readers to contest the purposes described in Hall (2001) as “polysemic values” which readers often attach to a sign or semiotic resources concerning the cultural orientations in which they are immersed. Contestation of thoughts and ideas is inevitable, particularly, in a global space where common sense is informed by readers’ contextual experiences and socializations (which are hugely distinct).

Notable observation is that when readers approach the text with different ideological positions, they are likely to oppose or reject the dominant view embedded in a text. Readers’ ideological position informed by their experiences determines the level of subjectivities in textual interpretation. When this approach is encouraged and practised in a reading transaction, it produces active thinkers with expanded reasoning and multiple perspectives (McLaughlin, & De Voogd, 2004).

### **2.5.3 SPATIAL SEMIOTIC SYSTEM**

Semiotic of space is defined in Gaines (2006:173) as a “descriptive process enquiring into the relevant significance of the relationships between objects and their spatial contexts.” Semiotics of space, according to Hall (2013) comprise aspects such as proximity, direction, the position of layout, and organization of objects in space. The study

of space as a semiotic resource is, according to Gaines (2006: 173), understood best when “meaning is explored about other concerns.”

The affordances of space, according to The New London Group (2000), Kalantzis, Cope, Chan, and Dalley-Trim, (2016) cited on the Literacy Teaching Toolkit involves:

Spatial meaning that can be conveyed through the design of spaces, using choices of spatial resources including scale, proximity, boundaries, direction, layout, and organization of objects in the space. It extends from the design of the page in a book, a page in a graphic novel or comic, a webpage on the screen, framing of shots in moving image, to the design of a room, architecture, streetscapes, and landscapes.

Meaning ascribed to spatial positioning abound with relative level of objectivity and subjectivity. Tonković (2013) noted that vertical axis, up or down, may be used in different contexts to convey a sense of power and weakness respectively. Furthermore, it is often assumed that objects that are high in visual space are positive in meaning, whilst those objects that are low in visual space are negative in meaning (Meier & Robinson, 2004; Schubert, 2005). The notion of negativity and positivity can also be assessed using left or right dimensions where left inferentially connotes negative affect whilst right connotes positive affect. Right side body movement (Natale, Gur, & Gur, 1983; Davidson, 1992) correlated with positive affect, whereas in Casasanto (2009), left hand side was associated with negative ideas and concepts like sorrow.

Figure five below conveys meaning multimodally with spatial designs prominently used to affirm negativities and positivities that readers may subjectively ascribe to both left and right positions respectively.

Figure five



**Source:** <https://za.pinterest.com/pin/468585536198549940/?lp=true>

Text designers as exemplified in Figure five may use spatial positioning as semiotic resources to convey their ideological perspectives. In the figure above, left positioning depicts an uninhabitable planet, thus conveying negative affect associated with a polluted and smoky space. The habitable planet is placed on the right side of the text with green scenery and this case conveys a positive affect hence the designer urges people to do what is RIGHT to maintain or preserve the right green planet. Therefore, spatial semiotic system (left and right) have been used to connote negative affect and positive affect respectively.

On the affordances given to spatial semiotics, Hall (2013) concedes that although it contributes to the overall semiotic cohesion, its semantic role in a text is not overt. Readers would, as a result, have to explore the text in its context which provides additional impetus for comprehension.



## 2.5.4 GESTURAL SEMIOTIC SYSTEM

Exley and Cottrell (2012:95) defined gestures as “the meaning potential of body language.” In most cases, gestures can be used to enhance both spoken and written messages. Gestures can be used for different expressive purposes. For instance, fidgeting as a sign of discomfort, showing differences between this and that and the portrayal of boundaries which can be depicted by two parallel hands (Hood, 2011).

Underpinned by interpersonal metafunction of gestures, Martin and White (2005) adopted a system of appraisal which gives an account on gestural act – projecting *attitude* like the expression of affect, appreciation and judgment and depiction of engagement which can be shown by the opening and closing of space via gestures.

Hall (2013) and Morris (1995) noted that hand gestures, body movements, stillness in facial expression and posture are some of the additional gestural acts that text designers may use to reinforce or enhance the message in a multimodal text. These gestural acts are not necessarily overt features of meaning making. It would be necessary that when these features are decoded, the context of the text should dictate the aptness of interpretations.

Zapiro in Figure Six, depicts the affection that most South Africans had for the former statesman Nelson Mandela. The text designer used **visual metaphoric representation** where a map is engraved with the face of a person serving as an iconic representation of the people of South Africa. The map is designed with human hands grabbing the statemen left hand to mark the love South Africans had for him and their wish for him to stay despite his fragility.

Figure Six



(Source: <https://www.thesouthafrican.com/zapiros-cartoon-of-the-day-we-have-to-start-letting-go/> [Accessed on 28/03/2019])

Linguistic semiotic system (in this context a speech bubble) was used concurrently with gestural semiotics (human gestures). Inferential reasoning should inform readers on typical questions like:

- a) Why did the text designer use one face instead of multiple faces for a rainbow nation like South Africa?
- b) Why is the left hand grabbed and not the right hand?

Questions of this nature are likely to provide varied responses reflecting varied levels of critical thinking and competencies on the part of the reader. It can be deduced in the context of the text that the map of South Africa engraved with one face connotes a sense of unity pleading in unison for the preservation of the life of the former statesman. It may also be inferentially correct to deduce that the map with one face affirms the ideal social cohesion that the former statesman advocated in a racially divided country like South Africa. Assessed in relation to the context, these views are relatively true and plausible.

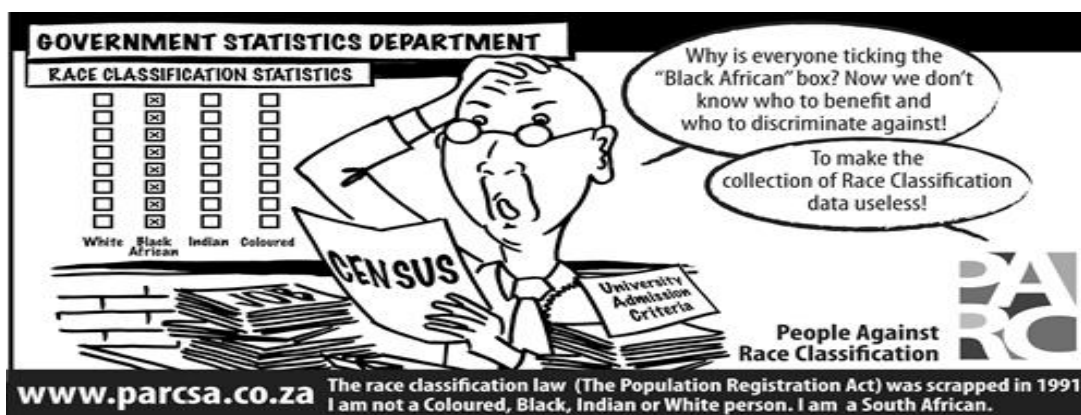
Spatial semiotic design, on the other hand, attaches meaning to positions of semiotic elements in a text. While the right side is often depicted as the position of strength, the left hand in this context connotes a state of ailment and fragility hence in the speech bubble the former statesman is projected saying: **“I KNOW IT IS HARD, BUT WE HAVE TO START LETTING GO.”** It is possible that this may not be reflecting the statesman’s

verbatim assertions, but the text designer manages to use a combination of semiotic modes cohesively to portray a specific scenario.

Similarly, People Against Race Classification (PARC) in Figure seven below uses speech bubbles complemented by visual and gestural acts to overtly express the type of confusion experienced by census officials. The speech bubble by census official for government statistics department complements the visual expression displayed (which in this context is a demonstration of frustration and confusion). The affordances of visual variables in this text were cohesively co-opted with linguistic mode to develop a cohesive argument.

The organisation for People Against Race Classification mocks the process as a futile exercise. This is portrayed through marked boxes which all represent one racial group which cannot be ascertained to be wrong.

**Figure seven**



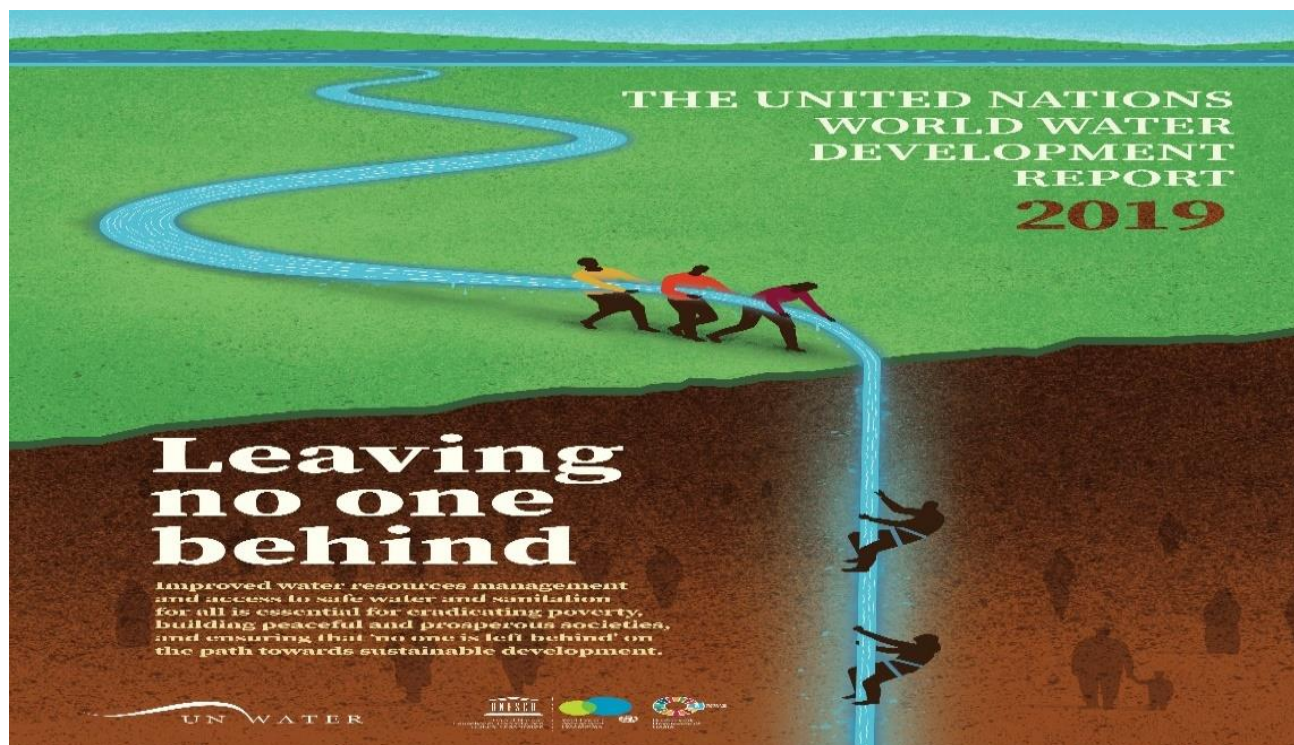
**Source:** <http://www.parsa.co.za/Tick-Black-African-Campaign.php> [Accessed 28/03/2019]

### 2.5.5 ACOUSTIC SEMIOTIC SYSTEM

According to Exley and Cottrell (2012:95) auditory design encompasses any sound which could be a spoken word, music, sound of activity (e.g. rustling papers) or other human non-words (e.g. laughter). Acoustics is a common semiotic resource which is co-deployed with other modes in digital texts. Distinctive feature of a digital texts is that, they are interactive in nature (Pachler, Böck, & Adami, 2014) have hyperlinks that afford viewers

to read, view and act on given sites (Railean, 2018). When co-deployed with still and moving images, acoustics or sound expand what monomodal texts cannot provide thereby reinforcing the message that text designers intended to convey (Shanahan, 2012; Dahlström, 2016).

**Figure eight**



(Source: <https://en.unesco.org/themes/water-security/wwap/wwdr/2019>)

UNESCO UN World Water Development Water Report 2019 (00:00:06-60), also integrated acoustic effects with still and moving images to document fundamentals on human rights. Through a combination of semiotic resources, the document conveys the devastating effects of malnutrition, food insecurity, lack of safe drinking water and the effect these have on the poor.

The other typical examples of digital texts that contemporary readers often encounter include websites, e-books and apps (NSW Department of Education and Communities, 2012). Such texts are further expanding requisite literacies in line with their inherent features which are not commonly found in print-based texts. These include capabilities such as full text search, access and easy manipulation, active hyperlinks, navigation

capabilities, bookmarks and multimedia interactive features (Boone & Higgins 2003; Chung, 2006; Jin, 2013)

Panke, an instructional analyst on ISSOTOL (2013), identified the following three fundamental drivers behind the popularity of eBooks: functionality of apps and e-readers; legacy of hypertext and the promise of mobile learning.

When multiple semiotic systems are incorporated, readers would need to observe how each resource contributes to semiotic whole. Adequate knowledge of modal resources and their affordances would be critical for correct interpretations.

The preceding sections explored contextual developments in relation to the use of semiotic resources and the materiality of modes to convey intended meaning. Requisite literacies in line with semiotic systems were explored. The role of ICT as a contributory factor towards the emergence of New Literacies and multiliteracies were highlighted.

The next section introduces multimodality with special focus on intermodal coupling and associated reading competencies. Major propositions underpinning multimodality are also discussed in line with the associated epistemic pedagogic implications.

## **2.6 MULTIMODALITY**

The New London Group (1996:35) defined multimodality as “a combination of two or more modes in representation.” It is the construction of meaning through an intermodal infusion or the coupling of semiotic modes with each mode contributing distinctively to the text (Unsworth, 2006).

Van Leeuwen (2017) introduces two dimensions of multimodality – aesthetic dimension and the critical dimension. While the aesthetic dimension focuses on the aesthetic uses of semiotic modes which may include text’s layout, colour and typography; the critical dimension explores the use of modes for specific communicative purposes in different contexts. The critical dimension of multimodality also sees modes as socially and culturally shaped resources hence it explores how semiotic resources are used to create meaning in different contexts (Dahlström, 2016).

Multimodality acknowledges a potential textual shift which is perpetuated by the rapid advances in communication technologies. For instance, Evans (2004:16) noted that reading now includes more pictures – still and moving while writing also including the use of images, diagrams and layout.

### **2.6.1 MULTIMODAL AFFORDANCES**

Proponents of multimodality present different arguments on the affordances of multimodal texts. Cope and Kalantzis (n.d.) argue that modes have unique representation potential. They maintain that certain modes can depict, explain or project specific ideas, concepts or events better than the other. This view is reiterated in Kress (2004:104) who argues for the “recognition of all modes since the affordances of modes is regulated by their materiality and agency.”

The term synaesthesia is used in Cope and Kalantzis (2009) to suggest the shifting of modes or the transference of meaning from one mode to the other. It is a powerful association of meaning across different modes (New Learning Transformational Design for Pedagogic Assessment, n.d.). The group argues that multimodal representation should not only be a tool for representation at a broader conception of literacy; it promotes deep thinking and critical thinking (ibid). Text designers therefore have access to multiple modes to construct messages based on text genre, domain specificity and their communicative intentions.

Doloughan (2011:26) observed two benefits associated with multimodal representations:

When visual and verbal resources are incorporated, the narrative repertoire is often extended. Secondly, when narrative repertoire is expanded, readers would have a greater view of experience whereby readers with cognitive and perceptual differences would be accommodated.

Perceptual and conceptual differences are cognitive realities that should be informing how concepts are presented in different contexts. Driven by the conviction that children learn best from the senses, Cornelius (cited in Evans, 2004) identified visuals as requisite semiotic resources which should go hand in hand with print texts. Likewise, Kress (2003) as well as Cope and Kalantzis (2004) argued extensively in favour of reducing semantic

load by integrating different modes. Their observation is informed by the understanding that affordance accorded by complementary modes eases the semantic load in a written language.

Horn (1999:27) introduced the phrase: “tight coupling” to suggest that, when words, images and shapes are combined, a withdrawal of one resource can reduce the semiotic quality of text while in some cases it might render the whole text meaningless.

## **2.6.2 MAJOR PROPOSITIONS**

Proponents of multimodality presented numerous propositions on multimodal representation, meaning-making and requisite interpretations. For instance, Jewitt, Bezemer and O’Halloran, (2016) presented the three postulations discussed respectively:

Firstly, meaning can be made with different semiotic resources and each resource offers distinct potentialities and limitations. This is supported by Cope and Kalantzis (2000), who equally argue that, semiotic resources have unique representational potential hence, text designers should choose semiotic resources based on their representation capacity. In other words, what images can do, is not what letters can do. In the same way, when symbols, colours and other visual attributes are used in a text, they often convey deep subtle meaning which words alone may be incapable to do.

Secondly, meaning making involves the production of multimodal wholes (Jewitt, Bezemer & O’Halloran, 2016). A similar claim is made in Doloughan (2011) who equally maintains that all texts, including textual narratives, are to be seen as potentially multimodal. This argument proposes that, irrespective of the dominance of a mode in a text, readers would get deeper sense of a text when they examine other subtle semiotic resources embedded in the text. Advocating for literacy to move on, Evans (2004) argues that, in keeping with the plethora of texts available in the contemporary communicative space, readers need to make sense of texts which come in multidimensional views. In addition to writing, new literacy features should also emphasize – design and compositional element of a text.

The third proposition is reiterated by numerous proponents of multimodality. While Jewitt, Bezemer and O’Halloran, (2016) require readers to attend to all semiotic resources to

make a complete whole, Kress (2010: 104) equally argues that all modes of representation are, in principle, of equal significance in representation and communication, as all modes have potential for meaning, though differently with different modes.

Kress (2010:1) explored the use of words, images and colours as semiotic resources and noted that, when images are used to show what is too difficult to read, writings can be used to name what is too difficult to show; whilst colours can be used to highlight specific aspects of the overall message. This is consistent with Horn's (1999: 27) position, who defined multimodality as "a tight coupling" where words, images and shapes can be co-opted for semiotic cohesion.

### **2.6.3 MULTIMODALITY AND SEMANTIC POSSIBILITIES**

Like Kress, Exley and Cottrell (2012) posit that intermodal coupling may lead to one of the following three semantic possibilities: semantic displacement, semantic reiteration or semantic enhancement.

#### **(I) SEMANTIC DISPLACEMENT**

Semantic displacement occurs when semiotic resources used in a multimodal text are incoherent or disjointed. It relates to instances where a text is made up of a simultaneous use of conflicting messages (Exley & Cottrell, 2012) It happens when a specific semiotic resource conveys messages that are contrary to the underlining message of the text. Some of the earlier studies on signs and signification, for instance, (Chang, 1987) established that, signs can perform two things – informational value and symbolic significance. When the information value and the symbolic value are parallel, semantic displacement becomes an inevitable reality.

#### **(II) SEMANTIC REITERATION**

Semantic reiteration occurs when semiotic resources in a multimodal text repeat the same message without distortion or enhancement (Exley & Cottrell, 2012). Readers establish message content presented in multiple modes. However, cognitive demand on readers for them to make sense of each mode may not necessarily be the same. Hence, critical



thinking skills characterized by readers' objectivity and subjectivity is key in the interpretation of multimodal texts.

### (III) SEMANTIC ENHANCEMENT

Semantic enhancement occurs when design elements of a text are combined to emphasise a message (Exley & Cottrell, 2012). Semantic enhancement is a common feature that characterizes contemporary communicative practices. It is made possible by innovative technologies that allow text designers to manipulate images, visual variables and design systems to convey specific messages. Hamilton (2017) explicated four categories of codes and their significance in textual comprehension:

**Metonymic codes** which cause readers to make associations or assumptions, **analogical codes** which constitute a group of signs that make a viewer to make mental comparisons. **Displaced codes** which comprise codes that transfer meaning from one set of signs to the other and **condensed codes** which involve the infusion of several signs to create a new composite meaning.

These deliberations evidence the complexities that are inherently associated with the reading of texts with integrated semiotic modes.

#### 2.6.4 READING MULTIMODAL TEXTS

Reading a multimodal text requires an intricate set of skills. Serafini (2011) suggested interpretative perspectives that teachers can embrace to help students make sense of multimodal texts. In addition to traditional reading perspectives, namely: predicting, summarizing and asking questions, Serafini (2011) suggests three more perspectives: media literacy, understanding the grammar of visual design and art criticism. The complexities associated with reading and comprehending a multimodal text requires new instructional strategy, vocabulary and knowledge (Anstey & Bull, 2006; Lankshear & Knobel, 2006).

Manoli and Papadopoulou (2013) explored the applicability of strategic reading in the reading of multimodal text. Strategic reading in question includes:

Skimming a text to get the main idea, scanning a text for specific information, making contextual guesses about the meanings of unfamiliar words, skipping unknown words, making predictions, re-reading, summarizing or activating prior knowledge.

Although the above strategies were mainly proposed for the reading of linguistic texts, Manoli and Papadopoulou (2013) further suggested that:

Students should be able to take advantage of the combination of the linguistic and visual modes of communication usually available during the meaning-making process and, simultaneously, apply reading strategies, which have been so far linked with language texts.

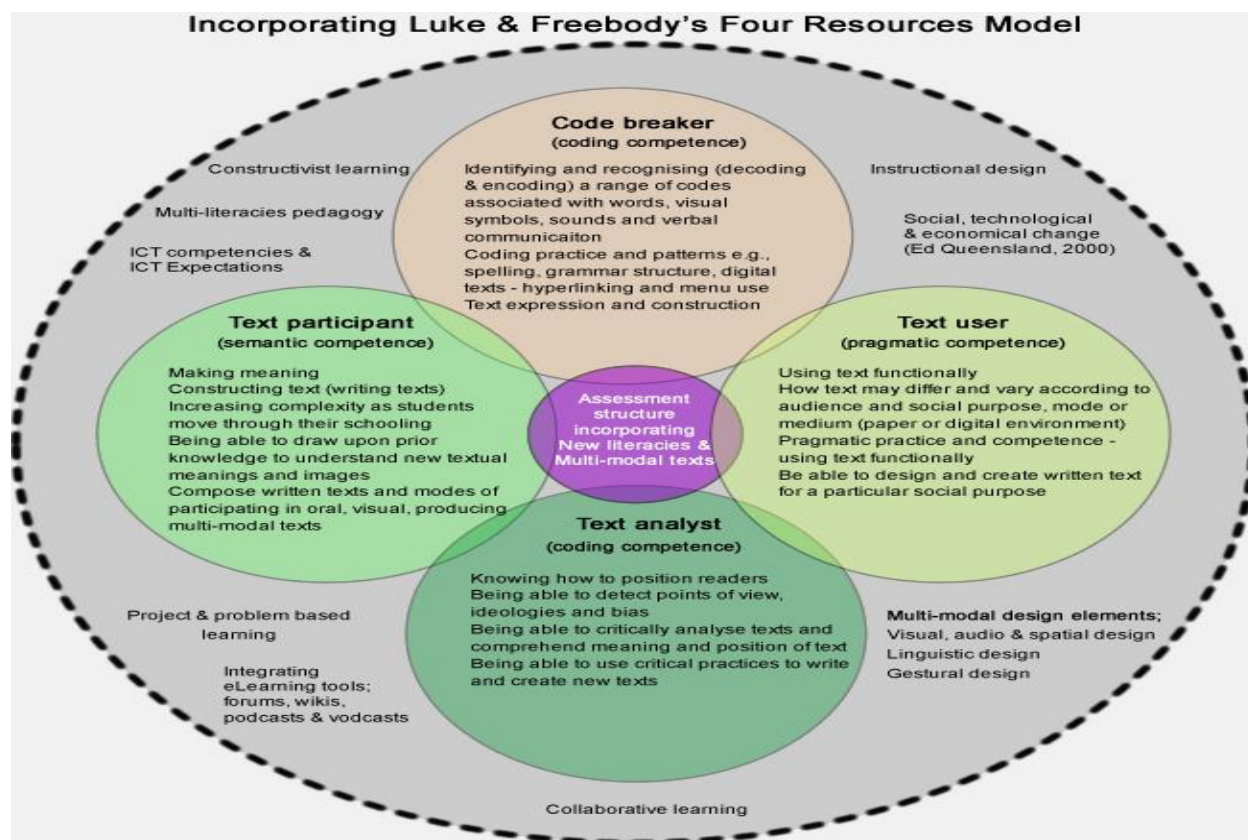
Multiplicity of reading perspectives and the need to model traditional reading strategies in the reading of multimodal text evidence the complexity associated with the reading of multimodal texts.

Literacy Teaching Tool Kit summarized the documentation proposed by some of the influential proponents on multimodality, reading and comprehension. For instance, Kress (2010) noted that reading a multimodal text involves identifying the task and function of each mode in a text; establishing the complex relationship existing between modes (Cope & Kalantzis, 2009).

Figure nine overleaf is a depiction of the Four Resources Model by Freebody and Luke (1990). The model suggests assessment structure which incorporates New Literacies and multimodal texts. The model suggests a repertoire of interpretative practices that characterise effective reading in a multimodal domain.

## 2.6.5 FOUR RESOURCES MODEL AND INTERPRETATIVE STRATEGIES

Figure nine



Source: [http://www.newwaysliteracy.com/wpcontent/uploads/2012/01/adapted\\_model.jpg](http://www.newwaysliteracy.com/wpcontent/uploads/2012/01/adapted_model.jpg)

Instead of being projected as readers, **The Four Resources Model** used the word “text decoder” which depicts a reader as someone who is able to:

identify and recognise a range of codes associated with words, visual symbols, sound and verbal communication; knowing the relationship between the spoken and written language as well as interpreting graphic symbols and meaning in their context.

The depiction of readers as text participants underpins what the model identifies as semantic competence. According to Davidson (1984:1) semantic competence evaluated in line with traditional literacy perspective implies “ability to determine the meaning of a particular string of words.” Conversely, the depiction of semantic competence in line with

the Four Resource entails, among others, ability to compose a range of texts which incorporates a range of modes: oral, visual and acoustic.

As text analysts, readers are assessed in terms of multimodal critical discourse analysis propositions. Ability to detect points of view, ideologies and bias is an expansion to semantic competence that readers are to inherently reflect. It requires prior knowledge which if not adequately activated, readers may not be in a position to identify subtle ideologies and bias which are often not stated overtly. As active participants, reading transaction will therefore involve making “correct literal and inferential meaning.” The two skills (understanding literal meaning and making inferences) are the fundamentals of critical thinking and critical literacies. Readers use these skills to unearth the subtle and deep sited values, views and the interests of text designers.

Signs in Rogers (2004) are depicted as products of a motivated combination of form and meaning. The materiality of a sign underpins the agency or the capacity to convey the motivated meaning. In line with this perspective, Kress (2004:209) recommends the application or observance of the following practical steps which are related to multimodal critical discourse analysis perspective:

- a) Examining the interest of the sign-maker at the moment of making the sign;
- b) Determining the sign-maker’s agency;
- c) Critiquing the aptness of sign-maker’s assessment of communication context;
- d) Examining the context, the appropriateness of resources for making signs.

Figure 5, on page 31 is a multimodal text with signs used as signifiers of text designer’s thoughts and subjective interests. The interest of text designer was to communicate a message on: *saving the planet*, with minimal semantic load and minimal demand on the part of the reader to comprehend the central message. Colours as visual variables, spatial positioning and linguistic texts were used as signifiers which ought to be interpreted in their context for relevance. The text designer cohesively used the statements: **Choose the right planet to live in**” and **“do the right thing with what is left of our planet”** and these equally reinforced the same message in the text which is to *save the planet*.

## **2.6.6 COMMUNICATIVE POTENTIAL OF MULTIMODAL TEXTS**

### **2.6.6.1 REDUCING SEMANTIC LOAD**

Semiotic resources have unique representational potential (Cope & Kalantzis, 2000). When these resources are used in unison, several benefits have been observed. The first notable communicative potential of multimodal text is the reduction of semantic load (Ibid: 2000). This contrasts with traditional literacy, where the linguistic system was the dominant system of affordances. The advent of technologies and digitization offers representational opportunities hence multiple modes can now be easily integrated based on their affordances.

### **2.6.6.2 EXTENSION OF NARRATIVE REPERTOIRE**

Multimodality is promoted for its capacity to extend narrative repertoire (Doloughan, 2011). An extension of narrative repertoire also implies that when a text is constructed, text designers would have a control on the division of semiotic labour (Kress, 2010). Commenting on the division of semiotic labour, Jewitt (2005) noted that, while writing was used for naming, labelling and specifying narrative points, visualization had a cognitive contribution which deepened how students make meaning of a text.

Unsworth (2006), coined the terms – ideational complementarity and ideational concurrence which are consistent with Lemke's (2002) notion of the multiplicative nature of the meaning-making capacity. Ideational concurrence is used to express the visual - verbal interface which Unsworth, (2006:1184) identifies as 'synergistic.' It encapsulates four basic functions of modal resources: clarification functions of modes, exposition function of modes; homospatiality and the exemplification role of modes. Of equal significance is the term, ideational complementarity which suggests a balanced meaning established because of a combination of modes which operate as joint but distinct contributors to the overall meaning of a text (Ibid: 1189). Kress (2003) equally noted that, when both visuals and verbal resources are interwoven, the practice extends the narrative repertoire of a text.

When narrative repertoire is expanded using multiple modes, readers would therefore be required to examine the semantic contribution of each modes and how they contribute to the overall meaning of a text.

### **2.6.6.3 MULTIMODAL TEXTS AND THEIR PEDAGOGIC RESOURCEFULNESS**

Chan, Chia and Choo, (2017) noted an increase in the use of multimodal texts for instructional and enrichment purpose. They are resourceful pedagogic tools which can promote deep learning; improved understanding of technical concepts and efficient processing of abstract concepts (Mayer & Moreno, 2003). They are credited for their capacity to develop a versatile approach to learning (Sankey, Birch & Gardiner, 2010: 853). In addition to these, students maintain their attention span when contextual ground is provided by using associated multimodal text for situated interpretation (Bezemer & Jewitt, 2010).

Readers with elementary reading skills benefit when abstract and technical concepts are presented in different modes – linguistic, visual or spatial. Modes perform distinct communicative functions: elaboration, summarizing, comparing and semantic analogy. Cognitive load is therefore reduced when readers engage with texts that make of use multiple modes (Mayer & Moreno, 2003).

### **2.6.6.4 ANALOGY MAKING**

Analogy making is a cognitive skill which helps readers to link signs with the concepts they represent or signify. It is a gradual process that both children and adults would make use of to make sense of the world (Thibaut, French & Vezneva, 2010). It is depicted in Mitchell (1993) as a ubiquitous practice in creative thought characterised by a highly perceptual process where the interaction between perception and concepts is facilitated.

Singh (n.d.) identified three forms of analogies: semantic, symbolic and figural analogy. This is expanded further in Lakoff and Johnson (1980 who maintains that it is through analogy making that concepts are expanded, simplified and comprehended. Semantic analogy establishes similarities or commonality of features in each word whilst symbolic and figural analogy respectively establish an analogy given to non-linguistic signs, symbol and figures. This can be attributed to associative experience or discipline specific

implicature (Dickins, 2014. For instance, the word '**Earth**' has a semantic analogy of a *planet* while the word '*chisel*' has a semantic analogy of a *sculptor* (ibid).

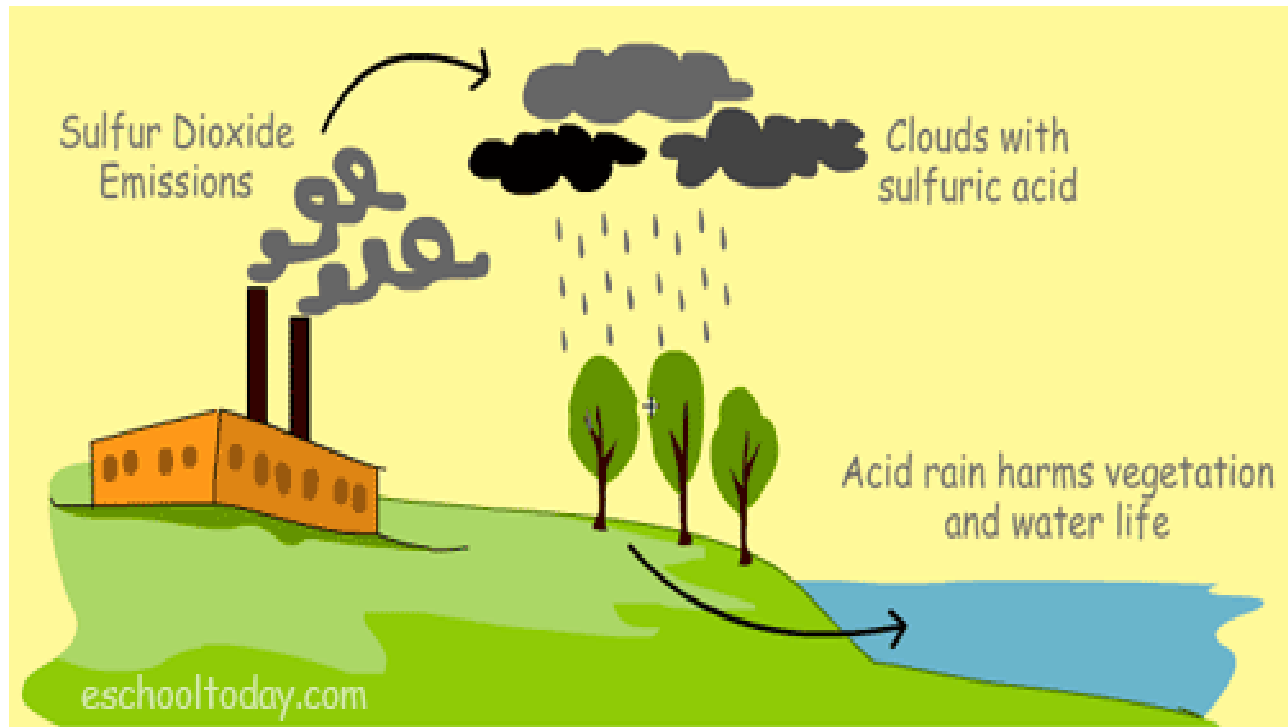
Colours in their variations as well as other related visual variables can be conjoined as analogous referents to mediated truth, ideas or thoughts. In line with the central inquiry of the study, it is imperative to examine how readers decode texts when modes with distinct materiality and affordances are combined. In similar pursuits, Hand, McDermott, and Prain, (2013) studied the effects of embedded modes of representation on students' cognition when chemistry related concepts are conveyed. The findings show that when concepts are presented in multiple modes, readers' experiences improved conceptual development, deeper understanding of abstract and difficult concepts (Ibid).

Also, a study by Pineda and Garza (2000) regards multimodal representation as a critical pedagogic approach that often contributes to rich cognitive understanding. Similar propositions are reiterated in McDermott and Hand (2013) who presented the notion of "differential cognition" which explains the distinct cognitive activity that takes place when different modes are used in a text.

#### **2.6.6.5 ELABORATION AND SIMPLIFICATION**

**Figure 10** overleaf is an example of a multimodal text with three types of signs – iconic, indexical and symbolic. The figure demonstrates how linguistic and non-linguistic signs can be used to represent issues of natural significance. In this context, the text shows the drastic effects of air pollution on the atmosphere, land and water. Both arbitrary signs and non-arbitrary signs were used in this text with distinct meaning; their affordances were cohesively presented to represent a process which can be understood with minimal effort on the part of the reader.

**Figure 10 Pedagogic uses of multimodal texts**



**Source, <http://eschooltoday.com/pollution/air-pollution/effects-of-air-pollution.html>**

Multimodal texts of this nature are available in both digital and print form. In these types of texts, iconic signs, symbolic signs and indexical signs are often used for different representational purposes: elaboration, clarification, demonstration and simplification. The associated benefit for readers would be a reduction of mental and cognitive load which ultimately leads to an improved comprehension.

#### **2.6.6.6 MODES, VISUAL METAPHOR AND PERSUASIVE EFFECT**

A notable practice associated with modal integration is the use of visual metaphors. Kadry (2016:34), defines visual metaphor as: “an unusual pairing of two elements that create a new meaning that neither element had alone, thus creating a whole new conceptual visual expression.”

In Figure 11 overleaf, the text designer integrated features of unique materiality to strengthen the central idea: saving our motherland. The use of motherland connotes the



idea of nature's fragility and vulnerability. Visual metaphor in this context cohesively projected a tree paired with animate features calling for a noble cause: "**Please adopt my child.**" The pairing of these unusual features is what generates subjectivity which could be right or wrong. In line with the study's central enquiry, multiple perspectives are permissible provided they are plausibly justified in the context of the text. When assessed in their context, one would be able to identify inferential interpretative perspectives generated thereby establishing interpretative limitations to be addressed as well as associated strength to be appraised.

**Figure 11**



**Source <https://www.behance.net/gallery/1716679/Advertisement>**

A systematic inquiry on the interpretive skills that readers apply when two or more unusual features are paired is central in this study. Insights on reading identified cohesion and coherence as key textual features with a significant bearing on readability and comprehensibility of a text. According to Gitwinski (1976) cohesion in a text is achieved by establishing semantic relationships where the interpretation of some elements in the text depends on that of another.

While Halliday (1976) introduced cohesion explicitly for linguistic analysis, the follow up questions on interpretation of multimodal texts are inevitably numerous. Central to these

inquiries would be the categorization and identification of cohesive devices which make up multimodal texts and the requisite interpretative skills that readers would need to correctly decode or interpret multimodal texts.

The next section explores the importance of critical literacy as a requisite knowledge base for multimodal literacy. Models that language instructors can use to facilitate critical literacy pedagogy are also highlighted.

## **2.7 THE LINK BETWEEN MULTIMODAL, LITERACY AND CRITICAL THINKING**

There is a notable causal link between critical thinking, multimodal representation and multiliteracies. Critical literacy is depicted as a “body of knowledge that encourages a reflective, questioning stance towards the form and content of print and electronic media” (Tyner, 1998:6). While multimodal representation embraces the use of multiple modes for specific communicative purposes, critical literacies goes beyond and questions the requisite skills readers would need to make sense of modes as used in different types of texts.

The New London Group (2001:6), identified the following as fundamental features of critical literacies:

- I. Ability to look beneath the surface of discourse.
- II. Ability to understand implicit ideologies and agendas.
- III. Ability to think and speak for oneself.
- IV. Ability to understand how social contexts affect the way texts are designed and understood.
- V. Ability to appreciate and understand resources of cultural and linguistic diversity.

Baguley, et al (2010), highlighted the importance of critical literacy being to develop students who can read and comprehend texts presented in different modes. Relevance Theory in Forceville (2014) with its fundamental focus on verbal-visual interplay provides interpretative dimensions aimed at assessing the semiotic significance of signs on a given multimodal text.

However, multimodal representation is not immune from scepticism and criticism. The criticism is levelled against multimodal text designers whose texts may be misinterpreted against the grain of text designer's perspectives. The implicit ideologies embedded within a text also positions the reading of multimodal texts as a multifaceted process with peculiar complexities on the part of readers.

The significance of critical thinking in interrogating a given text can also be expanded further through submissions in affordances theory and southern theory. Coined by Gibson (1979:949), affordances are to be understood as a dispositional property, individual characteristic that influence behavior and actions in a person. It brings the scenario of complementarity that exists between the environment and organisms whether human or nonhuman. In view of their relative qualities, they would then perceive stimuli in the environment which will then urge such organism to discharge discriminate behaviour. Affordances can either be a threat (negative affordance) or opportunity (positive affordances). In view of this submission, it is evidenced that interpretation of substances with fixed dispositional properties will vary with each perceiver relative to strength or adaptive qualities in that particular environment.

Connell (2014) in using Southern theory introduces the notion of decolonizing social thought which is argued to be controlled and directed by hegemonic social theory and constructed knowledge emanating from the global north to the global south. Southern theory then positions intelligentsia in the global south as equally capable and better placed to develop social theories which will result in the construction of knowledge of equal significance as that of the global north. This argument then introduces and affirms the notion of relativity and subjectivity in textual interpretation. There is therefore no fixed interpretation of signs which come with different cultural capital and viewed by readers exposed to different cultural and geopolitical realities.

## 2.8 SKEPTICISM AND CRITICISM

### 2.8.1 MULTIPLE PERSPECTIVES

Fajardo (2016:79) argues that multimodal text creators do not often fully give space to all possible perspectives and angles of a topic. A similar view is shared by Stevens and Bean (2007) who contend that texts simply reflect the ideological make up and biases that text designers identify with. This implies all texts whether persuasive or scientific may neither be neutral nor outright objective. AMIDA Subjectivity Annotation Types shows that different levels of subjectivities are commonly expressed in texts and they include among others: **subjective utterances** which comprise positive subjective, negative subjective, uncertainty, other subjective and subjective fragment; it also entails **subjective questions** which encompass positive subjective question, negative subjective question and general subjective question and **objective polar utterances** which can be categorized into positive objective and negative objective (Raaijmakers, Truong & Wilson, 2008).

### 2.8.2 CHALLENGES IN UNEARTHING EXPLICIT AND IMPLICIT IDEOLOGIES

Fajardo (2016) considers readers' ability to unearth implicit and explicit ideologies as a basic reading skill. A tendency to construct meaning through a highly subtle interplay of semiotic resources is a common representational practice associated with multimodal representation. Furthermore, texts are often embedded with subtle codes with distinct cultural meaning. Cultural meaning being a subjective commodity presents interpretive challenges to uninformed readers.

### 2.8.3 READERS' INABILITY TO READ BENEATH THE SURFACE OF DISCOURSE

The New London Group (1996) considers reading beneath the surface of discourse as a fundamental skill for contemporary readers. Berlin (1993:8) used the term "cracking the code" to suggest the act of uncovering the ideological meaning hidden in a text. The basis for this skill is according to Berlin (1993) underpinned by two broad perspectives – a structuralist and poststructuralist view on textual interpretation. The argument advanced by a structuralist view on language and other sign systems is that meaning is guaranteed based on the code used and the predetermined values assigned to them in a context. A

post structuralist view, conversely, maintains that texts carry multiple meanings which readers must unearth in line with the distinct signifying practices – linguistic or non-linguistic. These skills may not be properly refined to the majority of students where emphasis is still on monomodal print based literacy.

## **2.9 CONCLUSION**

The preceding sections projected literacy as a multifaceted domain which has always evolved across generational eras. It has evolved to respond to developmental demands of socio-cultural, political and technological impetus. The chapter then delved into the conceptualisation of New Literacies, Multimodality and Multiliteracies and the interpretative perspectives that would characterise the reading of texts with multiple semiotic designs. Also, the chapter explored an existing causal link between multimodal representation and Critical Literacies. The chapter concluded by highlighting varied perspectives on interpretative repertoires with associated criticisms and scepticisms on multimodality.

The next section provides a critical account on the theoretical frameworks upon which the study stands.

## CHAPTER THREE: THEORETICAL FRAMEWORK

### 3.0 INTRODUCTION

Theoretical framework is adopted in a study based on its alignment with the central inquiry of the study (Simon & Goes, 2011). Grant and Osanloo, (2014), cautions that theoretical framework should not necessarily be confined to a specific section or chapter of the study. Each section in the entire study must be consistent with the theoretical framework to ensure a cohesive and coherent whole. As highlighted in Collins and Stockton (2018:1), the following postulations about the role of a theoretical framework in a given study are reiterated:

- clarification of epistemological dispositions;
- identifying the logic behind methodological choices;
- providing a guide or framework for the study;
- and, possibly for building theory as a result of research findings.

In line with the central objectives, the study adopted a multimodal critical discourse analysis to explore the affordances of semiotic modes and how text designer chooses signs to represent thoughts, concepts and ideologies. Also, the study adopted semiotic theory and its sub-branches, namely, social semiotics and visual social semiotics to elaborate how semiotic modes as signifiers are used to carry discipline-specific and culturally specific messages.

The study also elucidates how Relevance Theory (RT) as modelled in Forceville (2014) can be used to examine and describe the aptness of respondents' interpretations of semiotic modes in their context and to determine the logic and the validity of inferences that respondents provide.

### 3.1 CRITICAL DISCOURSE ANALYSIS (CDA)

Critical Discourse Analysis (CDA) is an interdisciplinary theoretical framework. Applied in different domains, the framework explores texts and how they are constructed to change or sustain specific ideologies (Larrain 1979; Van Dijk 2001). CDA considers text broadly as anything that reflects language in use which could be in any form – written, spoken, visual or sound if it has a potential to convey meaning (Fairclough, 2003).

Informed by Michel Foucault's proposition, Fairclough (1992:64) provides two interpretative accounts on discourse analysis:

*In an abstract sense, discourse is seen as a category which designates semiotic elements (as opposed to and in relation to other, non-semiotic, elements) of social life. However, as a count noun, discourse is considered a category for designating ways of representing aspects of social life.*

Proponents of CDA make numerous observations on texts, signification and meaning-making process. These observations are discussed respectively in line with the study's central enquiry.

#### 3.1.1 INTERTEXTUAL NATURE OF TEXTS

The first central observation is that texts are considered as inherently intertextual and interdiscursive (Fairclough, 1992:102; 1993:137). Intertextuality, as expanded in Prentice and Barker (2017), implies that "meaning is not an inherent property of words, signified or isolated text." Instead, meaning emerges from the relationships with other signs and texts from other contexts. CDA maintains that there is yet another text that informs the content of the text at hand (Fairclough, 1992; 1993). Stated differently, Moloji and Bojabotseha (2014:417) argue that "in one text there is often an articulation of multiple texts and voices." These multiple texts and voices are not overtly stated. Readers decode these texts and voices through critical thinking skills, which among others involve interrogations, objective/ subjective and discerning judgments; assessing, evaluating and reflective examination of content of a text (Foundation for Critical Thinking, n.d). When these activities are applied, readers achieve the goal – unearthing the deep meaning that is buried in each text.

### 3.1.2 INTERTEXTUAL AND INTERDISCURSIVE NATURE OF TEXTS

Kristeva, (1980:15) maintains that, “any text is constructed as a mosaic of quotations and is the absorption and transformation of another.” CDA rejects the notion of a text as a closed entity; conversely, it is an open space that gets modified by each new reading and interpretation (Manyawu, 2012).

Fairclough cited in (Manyawu, 2012:214) posits that:

Texts are built of bits and pieces of other texts so that a text’s meaning is a mere adjustment of the meaning of previous other texts upon which it draws or with which it enters into an adversarial or complementary relationship.”

Discourse analysts have different interpretations of interdiscursivity. Philips and Jorgensen (2002, 73) posit that texts are characterized by an articulation of different discourses and genres hence the term *interdiscursive* (Jørgensen, & Phillips, 2002:73). A brief definition is offered by Fairclough who explains interdiscursivity as an aspect of intertextuality which is called ‘constitutive intertextuality.’ Bhatia’s (2010) definition is ideal for this study. As cited in Manyawu (2012:214) it is projected as “the mixing of the characteristics of genres, discourses and styles that contextualise the text.”

Conceding that it may not always be simple to establish the *intertextual* and the *interdiscursive* elements of a text, Wang (2008:368) suggests that the perspectives nevertheless offer insights which allow one to interact with prior texts, writers, and conventions.

### 3.1.3 TEXTS AS MASSIVELY OVER DETERMINED

Althusser, Balibar and Brewster (1970) as well as Fairclough, Jessop and Sayer (2004) depict texts as something massively over determined. This implies that, in addition to addressing issues of linguistic analysis of a text, aspects of social relations, social identities, and institutions should equally be explored. A similar proposition is that of Locke (2004) who depicted CDA as a political intervention which emerged with a socially transformative agenda. CDA questions common sense, meaning making and ideals which are perpetuated by dominant cultural ideologies. These ideologies are said to be



modelled to legitimize common sense with an aim of sustaining relations of dominations (Fairclough 1992; Butler, Laclau, Žižek & Žižek, 2000).

### **3.1.4 CULTURAL APPROACH TO CRITICAL DISCOURSE ANALYSIS (CCDA)**

Gavriely-Nuri in Flowerdew and Richardson (2018) formulated a cultural Approach to Critical Discourse Analysis (CCDA) with an intention to examine the ways in which cultural codes are embedded in discourse. Shi-xu (2014) reiterates the same proposition depicting culture as an integral part of CDA. Phrases like cultural narratives,' cultural representations' and 'cultural discourse analysis' (Carbaugh 2007), as well as 'the cultural turn' in (Fairclough 2003), suggest the integral role culture plays in CDA.

Although the concept of culture has been noted as complex and ambiguous, Gavriely-Nuri in Flowerdew and Richardson (2018) highlighted the following as central principles of CCDA for readers to take note of:

- A. No text is independent of its cultural contexts;
- B. Cross-cultural or multi-cultural perspectives facilitate the identification of unique elements of specific cultural codes and thus contribute to the process of decoding them;
- C. Cultural codes are compact packages of shared values, norms, ethos, and social beliefs

A cultural approach to critical discourse analysis (CCDA) generates a series of questions that are critical to Multimodal Literacies. When such questions are posed, multiple perspectives are generated which further widen subjectivities which when looked in their context may generate a range of relative truth.

### **3.2 MULTIMODAL CRITICAL DISCOURSE ANALYSIS**

The previous section introduced (CDA) and its major premises on textual analysis. The next section introduces a Multimodal Critical Discourse Analysis (MCDA) approach, a sub-branch of discourse studies which captures a broad range of analytical perspectives that are not adequately addressed by the former. In this section, the following core features of MCDA are respectively presented: a brief comparison between CDA and

MCDA; the proponents of MCDA and their theoretical contentions; the analytical steps that social researchers need to consider when conducting MCDA and finally, examples applicable to MCDA and basic criticism levelled against the approach are given and discussed.

### **3.2.1 COMPARISONS BETWEEN CDA AND MCDA**

Both CDA and MCDA attempt to establish meaning buried in a text with an understanding that texts do not only convey literal meaning; text designers also use semiotic resources as modal resources to convey deep sited meaning underpinned by subtle ideological perspectives. It is the responsibility of the reader to unearth such deep-rooted meaning in texts. A comparative note by Coskun (2015:42), shows that, like Critical Discourse Analysis, Multimodal Critical Discourse Analysis too, claims that visual communication shapes and be shaped by society.” In addition to this, MCDA is also interested in the role that visual semiotic choices play in power relations (Coskun, 2015:42).

### **3.2.2 THE EMERGENCE OF MULTIMODAL CRITICAL DISCOURSE ANALYSIS**

MCDA was pioneered by two academicians, Gunther Kress and Theo Van Leeuwen whose major enquiries were to give an account on how language, image and other modes of communication combine to make meaning (Kress & Van Leeuwen, 2001; Anstey & Bull, 2006; Coskun, 2015). Van Leeuwen (2001) proposed a modelling system which would operate within multimodal semiotic resources to give a theoretical account on the use of colours, font style, font size, volume, voice quality and pitch as meaning- making modes in different contexts. Similar pursuits are noted in (Martinec & Salway, 2005; Bateman, 2008; Liu & O’Halloran, 2009; Unsworth & Cleirigh, 2009), whose primary focus were to investigate text-image relations. Furthermore, Martinec, (2004) also investigated gesture-speech interaction while Lemke, (1998) and O’Halloran, (2008) focused on the affordances of language, images and mathematical symbolism.

### **3.2.3 MAJOR PROPOSITIONS INFORMING A MCDA STUDY**

Hyland and Paltridge (2011) adopted O'Halloran definition depicting MCDA as a domain of inquiry. For the purpose of this study, the researcher used Machin and Mayr's definition (2012) which suggests the following basic steps that characterise a multimodal critical discourse inquiry:

#### **3.2.3.1 LEXICAL ANALYSIS AND THE CHOICES OF VISUAL SEMIOTICS**

The first step involves basic lexical analysis of texts and the analysis of individual visual semiotic choices in texts. According to Hippiusley, (2010:31) one of the basic tasks of lexical analysis is to: "relate morphological variants to their lemma that lies in a lemma dictionary bundled up with its invariant semantic and syntactic information." In this study, respondents' interpretative repertoire also had to display basic lexical analysis which involved among other things, examining how words, phrases, clauses and sentences were chosen and how these lexical features were arranged to construct distinct meaning on a given multimodal text.

#### **3.2.3.2 EXAMINING ATTITUDE OF SPEAKERS/WRITERS OR TEXT DESIGNERS**

The second step of analysis involves looking at the semiotic resources that represent the attitudes of the text designer towards the subject matter. In this context attitude would cover examining writer's feeling about the subject (Troolin, 2018). Writers can express their attitude through a careful choice of words, sentence structure and language. Readers would then ask themselves the following questions as they decode the text:

- a) Is the writer's choice of words specific or general; emotional or neutral; common, scholarly or unfamiliar?
- b) Is figurative language used to compare things that are not similar to make a literal point?
- c) Are sentences in the text short or long and what rhetorical effect does this have on meaning?
- d) Does the author present a balanced view of the subject?

- e) What kind of details, reasons and evidence does the author include in a text to support his or her argument?
- f) Are the elements presented rationally or emotionally?

When readers as text decoders are in the position to answer all these questions honestly and objectively, they would then be better placed to identify the writer's attitude towards the subject matter (Troolin, 2018).

### **3.2.3.3 LINGUISTIC AND VISUAL RESOURCES REPRESENTING WHAT PEOPLE DO**

Text designers often choose semiotic modes based on their capacity to convey the intended meaning. The affordances of a mode entail the quality of a mode to convey the intended meanings. Thus, it is determined by the materiality of a sign: which entails iconicity, symbolic and indexicality of a sign and their qualities (Albers & Harste, 2007).

Pahl and Rowsellkate (2006:2) add that knowing the materiality of a mode does not only involve understanding the way they look, sound and feel, but also involves understanding of who made the text, why, where and when. Noted communicative benefits associated with multimodal representation include extension of narrative repertoire (Doloughan, 2011), change in narrative practices and the provision of alternatives on issues of greater significance projected in the public domain (Montessori & Lopez, 2015).

### **3.3.3.4 METAPHORICAL TROPES IN DISCOURSE**

Machin and Mayr (2012) used the phrase 'metaphorical tropes' to explain how different kinds of metaphors and other rhetorical tropes are used in different contexts to attempt to shape understandings. A study by Lakoff and Johnson (1980) focused on metaphoric meaning given to spatial semiotics. Their observation is that, space can convey metaphorically, the notion of luxury; as a reference to pursuit for breath', or with reference to 'freedom'. Multimodal representation with its focal emphasis on simplification of concepts for better conceptualization has also been directly associated with what psychologists refer to as synaesthesia. Synaesthesia is seen as an integral part of representation which can involve the shifting between modes; re-representation of the same thing from one mode to another (Kress & van Leeuwen, 1996; Kress, 2001) hence

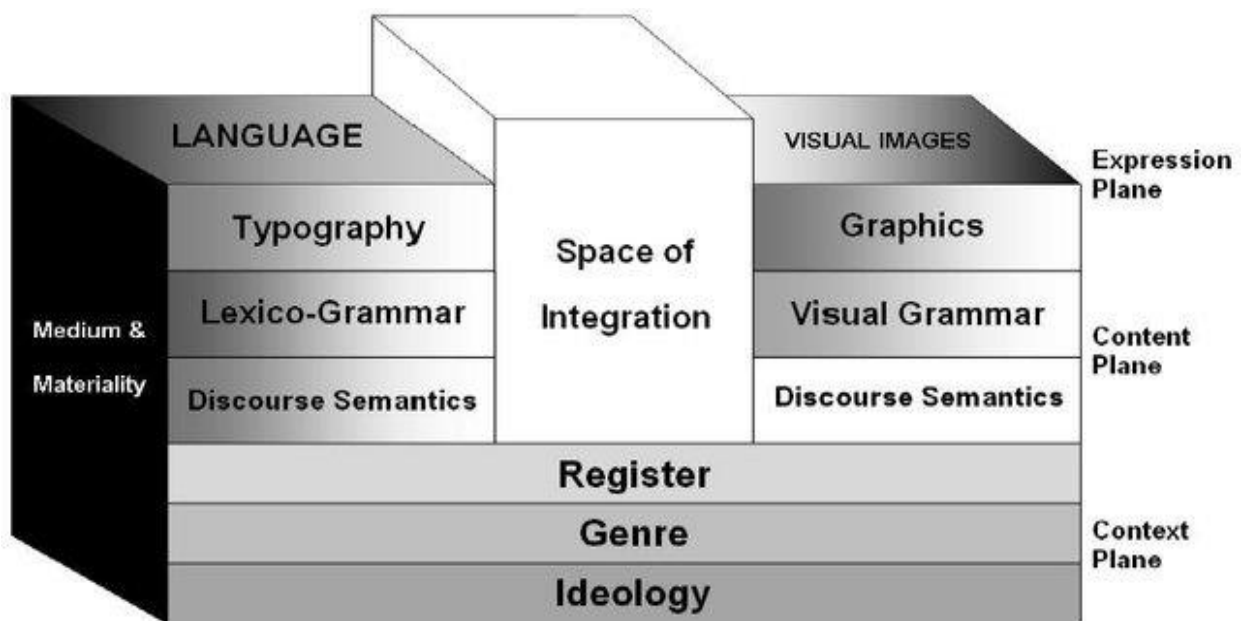
it is advocated for its potential to scaffold learning, reading and comprehension (Cope & Kalantzis, 2000).

Lim, (2002) used Integrative Multi Semiotic Model as presented in figure 12, section 3.4 below to give an account of how language interacts with visual images across different planes – expression, content and context planes.

### 3.4 INTEGRATIVE MULTI-SEMIOTIC MODEL (IMSM)

Figure 12 below is a diagrammatic depiction of IMSM. The model responds to the pressing need to understand the dynamics of meaning-making-modes in multimodal representations. It provides a systematic guide in the analysis of texts which integrates or co-deploys – the linguistic and images for communicative purpose (O'Halloran, 2004).

Figure 12



Source: (Fei, 2004)

With its emphasis on language and visual images, the IMSM explains the materiality of modes and how the characteristic features of both language and visual images are cohesively joined across the three planes – **expression**, **content** and **context** plane to produce a cohesive multimodal text.

The model explains the integration of two semiotic designs, linguistic and visual and their characteristic modal resources. The language stratum encompasses typography, lexicogrammar and discourse semantics. The visual images stratum on the other hand encompasses the graphics, visual grammar and discourse semantics. Typography, the first feature on the language plane, technically covers aspects such as the font style, arrangement or appearance of typeset matter. It is depicted as, a “visual design of language through the selection of type font, size and spacing” (Glossary of multimodal terms, 2018). In visual communication, typography is a communicative resource; it is not only viewed as an ornamental or aesthetic resource. It is a semiotic resource with its own meaning potential which needs to be decoded in the context of a text (Kress, 2003; Hassett & Curwood, 2009; Serafini, 2012).

The second feature of the strata on IMSM focuses on grammar. Halliday’s Systematic Functional Grammar (SFL) explains the concepts – “Lexico-Grammar” in language and “Visual-Grammar” in Visual Images. Key terms on SFL concern the “systematic” and “functional” nature of language. While Systematicity refers to “a network of systems or interrelated sets of options for meaning-making”, functionality, suggests the “contextualized or practical uses to which language is put” (CART.TESL, 2010). To understand lexico-grammar in the context of multimodal affordances, three key terms are addressed namely,

- (a) the representational meaning of a text;
- (b) the interactional meaning of a text and
- (c) the compositional meaning of a text.

The three terms above, respectively provide answers to the questions: “who or what is represented in a text; who or what is interacting with who and how the elements of composition (visual text) are used to construct meaning” (Prezi, 2018).

The third stratum in the IMSM model addresses the concept of discourse semantics. Discourse semantics is defined in Asher (1998) as a branch of linguistic inquiry which attempts to establish the relationship between the content of a text and its context. The main proposition is that, it is only the discourse context that can serve to interpret the next sentence in the discourse (Asher, 2004). Reading as a deconstruction process is

therefore not only a cognitive process; it raises the relevance of context which affirms the notion of relative subjectivities underlining social constructivism paradigm.

The context in the IMSM model encompasses the ideology which the text expresses, the genre that categorizes the text and the register used to express the ideology. As a basic system, Dijk (1995:243) considers ideology as “a fundamental instrument of social cognition which can be used to organize attitudes and other social representations that members of a particular group share or have in common.”

Dijk (1995:244-247) suggested the following theoretical propositions on ideologies and textual interpretations:

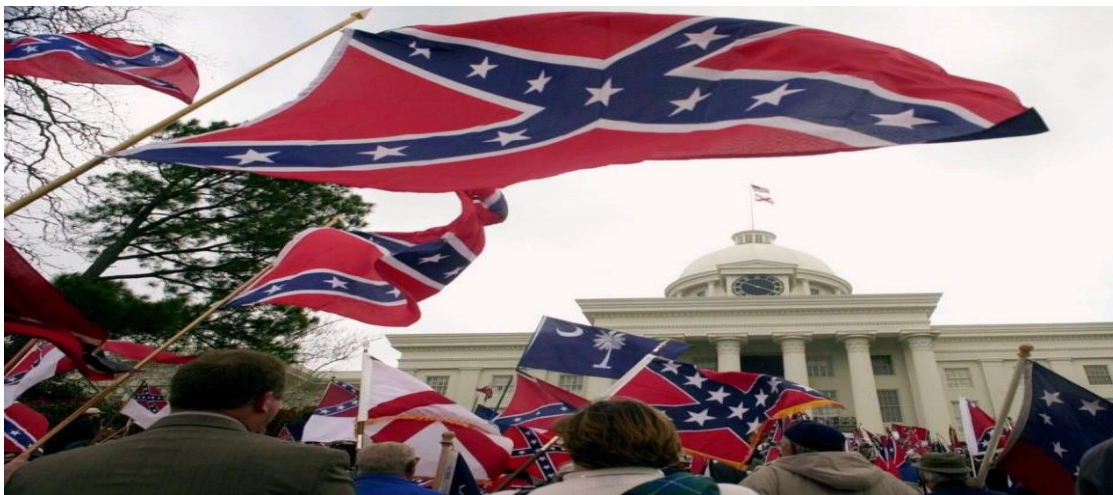
- a) Ideologies are cognitive.
- b) Ideologies are social.
- c) Ideologies are socio cognitive.
- d) Ideologies are not true nor false.
- e) Ideologies may have various degrees of complexity.
- f) Ideologies have contextually variable manifestation.
- g) Ideologies are general and abstract (Dijk (1995:244-247).

The IMSM explained the integration of two semiotic resources – the Language and the Visual Images. The variables constituting either the language or the visual image were identified and how each contributes to semantic expansion. The IMSM therefore presents a broad technical demonstration of how Linguistic Semiotic system integrates with the Visual Semiotic system and the significance of context as the base of the content, the register and the genre. Inter-semiotic cohesion is therefore achieved when distinct semiotic resources are co-deployed based on the medium and the materiality of modes. It is the materiality of modes that determines their affordances and it is the visual Grammar and the Lexico-Grammar that control the systematic arrangement of these modes.

### 3.5 MULTIMODAL CRITICAL DISCOURSE ANALYSIS IN ACTION

Morgan (1997:1) extended MCDA and suggested three basic activities to observe when interpreting a given text: “examining the cultural and the ideological assumptions that underwrite the text. Interpreted differently, this would mean texts are often embedded with author’s ideological and cultural assumptions which are either explicit or implicit. Smagorinsky, (2001) used the USA confederate flag to illustrate how contextual cultural experiences may inform readers’ assumption, subjectivities and their interpretative perspectives of a given text.

**Figure 13 USA Confederate Flag**



Source: Smagorinsky, (2001)

Figure 13 above is an example of a multimodal text characterised mainly by visual and spatial semiotic designs. One group representing a dominant cultural group-the Whites, viewed the flag as a symbol of honour, thus establishing their values as authoritative and sovereign (Berger & Luckmann, 1966; Williams & Williams, 1977; Taxel, 1981; Gee, 1990). Contrary to this view, the same flag was interpreted differently by the Afro-Americans who expressed that the flag was reminiscent of their oppression, segregation, slavery and all the things that are a disadvantage to the Afro-American people (Smagorinsky, 2001). The idea of culturally mediated subjectivity to truth makes interpretation of signs in multimodal texts an open-ended reading transaction. Borrowing Vygotsky’s concept of higher mental processes, Smagorinsky, (2001) draws our attention



to zones of meaning-making where the memories, imaginations and the cumulative effect of what the reader encountered will inevitably influence the meaning they attach to signs as signifiers. MCDA further emphasises the need for readers to display the following competencies to ensure plausible interpretations.

### **3.5.1 THE POLITICS OF MULTIMODAL REPRESENTATION**

It is important for readers to understand the dynamics that underpin representation for an informed reading transaction. In this section, the politics that underpin representation are outlined with special focus on major contentions on multimodal representation; approaches to representation; social semiotics and signifying practices as well as associated implications to reading and requisite literacies.

Representation is a broad term which covers a broad range of literacy practices. A definition by Hall (1997:16) depicts representation as a practice that text designers would use to “describe or depict something; or to call it up in the mind by description, portrayal or imagination.” Phrases like symbolizing; standing for; to be a specimen of, or to substitute are therefore also used to expand the intricate dynamics of representation (ibid). Similarly, Fairclough, (1989; 1995) and van Dijk, (2002), identified representation as a language used in a text which writers or text designers can use to assign meaning to objects.

Contentions on representation are varied and wide hence the researcher argues for multiliteracies which among others advocate for critical literacies where signs/semiotic modes are to be interpreted extensively aiming for content and context relevance. Major contentions that underpin the politics of representation are deliberated on, followed by the three fundamental accounts on representations which outline distinct views on meaning-making and the approaches that readers would use to make sense of signs used on a given text.

### **3.5.2 REPRESENTATION, CULTURE AND MEANING-MAKING**

Hall (1997:15) argues “there is a direct connection between meaning, language and culture.” Language, signs and images conceived as semiotic resources can only convey meaning or represent conceptual maps based on social conventions (Hall, 1997). When readers lack access to social conventions or are ill-equipped in the social conventions of a specific language system or semiotic design, transferability of concepts from the speaker to the hearer or from a writer/text designer to readers would be difficult if not impossible.

Anthropologists like Sapir and Whorf brought the notion of “cultural perspectives.” Cited in Hall (1997:22), they argue that we are all locked up in our own cultural perspectives hence multiplicity of meaning given to signs is inevitable. This argument has led to the development of three basic approaches to representation: reflective, intentional and constructionist perspectives which hold different views on how meaning is constructed and how it can be decoded from a given text.

#### **3.5.2.1 REFLECTIVE MEANING**

According to Hall (1997), reflective view to representation maintains that language system simply reflects meaning which already exists out there in the world of objects, people and events. Also known as a mimetic approach, reflective view would consider meaning as something fixed awaiting readers to decrypt as embedded in signs and objects.

#### **3.5.2.2 INTENTIONAL MEANING**

Contrary to a reflective view, the intentional approach maintains that, it is the author, speaker or writer who would determine meaning attributed to words according to his or her intention. In other words, readers would only interpret the text correctly when they understand the writer’s intention behind the use of a specific sign, word or image.

#### **3.5.2.3 CONSTRUCTIONIST MEANING**

Both the reflective and intentional view were criticized upon the inception of a constructivist approach which maintains that meaning is a product of social construction made possible by a system of language shared by a specific linguistic culture (Hall, 1997).

There are two distinct variants on constructivist approach to reading: semiotic approach modelled on Swiss Linguist Ferdinand De Saussure, and the discursive approach which is attached to the French philosopher Michel Foucault. Semiotic approach to meaning making is based on the following assumptions:

Words, images and objects are potential signifiers of meaning;

Language is ruled governed and can be studied with law-like and scientific precision; and that representation is a social practice (Hall, 1997)

Conversely, the emphasis on discursive approach emphasis is that discourse is better interpreted if looked at in context (Song, 2010).

Further propositions which underpin constructivist approach to meaning making are outlined below. Each proposition is discussed along with potential implications on meaning making and the applicable or requisite interpretative skills characterizing multimodal literacy.

### **3.5.3 THE MATERIALITY OF A SIGN AND ITS SYMBOLIC FUNCTION**

Material quality of a sign does not determine its meaning. It is the symbolic function that determines its meaning (Hall, 1997). Pahl and Rowsellkate (2006:2) made similar observation in their argument that, to access the underlying meanings of literacy practices, we need to not only account for the materiality of texts, but also understand who made the text, why, where and when.

This view does not discard the materiality of a sign on meaning-making. When readers are aware of the implicit voice of the writer which is underpinned by his/her ideology, motif and setting, they would be better placed to interrogate text with potential multiple meaning decoded.

### **3.5.4 SIGNS AND THEIR ARBITRARINESS**

Constructivist interpretative perspective considers all signs as arbitrary and subjective. It sees no specific direct link between the sign, its form and the signified (Dowling, 2016). Ferdinand de Saussure, the father of modern linguistics coined the terms signifier and the signified in his attempt to explain that, the signified which is a mental concept that readers

have about the sign is not the same as the signifier. Readers learn to associate the signifier with the mental representation which is the signified. In line with the focus of the study, multiliteracies promotes the use of all semiotic systems - linguistic, visual, gestural, spatial and acoustic semiotic system based on their affordance. All these systems may signify different mental concepts using different semiotic elements which have no direct resemblance with the concept they represent. When contemporary readers in the same cultural space are not exposed to these realities, shared meaning and transferability of concepts from text designers to readers would be difficult to realize.

### **3.5.5 MEANING AND CONTEXT**

Texts are generated by contexts (Locke, 2004). It is the context that equally determines the meaning (Hall, 1997). Its significance is noted broadly as the main determinant of meaning attributable to texts. It has been identified in New London Group, (1996) as a factor in determining how texts are designed and understood. Lankshear and Knobel (2003) focused on the demand and challenges characterizing literacy curriculum in the twenty first century, their observation is that, there is a pressing need to get to grips with the texts, the contexts in which they are used and the language surrounding them (Lankshear & Knobel, 2003).

Phrases like “situated practice” in The New London Group (1996:65); ideological situatedness in (Street, 1984, 1993) and situated meaning in (Flowerdew & Richardson, 2018) are used to reinforce the critical role that the context plays on how signs are interpreted.

The next sections highlight semiotics and social semiotic and their interpretative approaches on multimodal texts.

### **3.6 SEMIOTICS**

Semiotics is generally defined as *the study of signs* (Eco, 1986; Suhor, 1992; Harrison, 2003). In Jupp (2006:297), it is depicted as the study of cultural signs in terms of the cultural codes through which they are organized. It is therefore an investigative process which examines a link between the sign and the concepts, knowledge or ideas

represented (SIGN SALAD, 2018). Inn (cited in Siegel 2006:68) reiterates the same view, depicting semiotics as a “broad field that looks at *meaning and messages in all their forms and all their contexts.*”

Peirce (cited in Chandler, 2002) reiterates Eco’s view, depicting semiotics as “the *formal doctrine of signs.*” Expressing the need to move beyond Umberto Eco’s basic depiction of semiotics as *the study of signs*, Chandler (2002:2) notes that “semiotics does not only focus on the study of signs in general; it can also cover anything that stands for something else.”

### 3.6.1 SAUSSURE’S DEFINITION OF THE SIGN

Saussure’s definition of the sign is dyadic. It introduces two semiotic terms – the signifier and the signified. Ferdinand de Saussure in Little Art talks 2018:00:41:22) describes the sign as the whole that results from the association of the signifier with the signified.

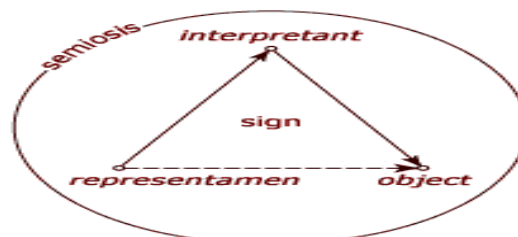
**Figure 14: Saussure dyadic model**



(James, 2018)

Charles Sander Peirce’s definition of the sign is an elaborated explanation of the process of signification. In line with his argument, Peirce’s signification process is triadic; It introduces three semiotic aspects – the representamen, interpretant and the object (Johansen & Larsen, 2002).

**Figure 15**



### Source: Oller, 2014

The representamen, is the nature of the sign, which could be iconic, indexical or symbolic. The affordances of semiotic signs require distinct interpretive skills and practices. The following observations on signs are critical in the reading of signs as potential semiotic resources.

#### 3.6.2 INTERPRETING ICONIC SIGNS

The first basic example of a sign is an icon. The word “icon” comes from a Greek word “eikon” which means image. Iconic signs therefore bear resemblance to the concept they signify (Hammerich & Harrison, 2002). The physical attributes of an icon closely resemble that of the situation to which they refer (Crystal, 2008:234). Examples of iconic signs include paintings, maps, photographs, etc.

Although iconic signs depict actual things in the world, Tagg (1988) argues that not all iconic signs convey meaning overtly or denotatively. At a production level, iconic signs can convey mediated meaning.

Van Niekerk (2018:113) noted the various ways in which icons can be used as modes of affordances:

A passport full of visas may be accepted as an icon for success or being a world traveller; images of healthy human organs may be accepted as icons for healthy living or medical care; and an umbrella may be accepted as an icon for protection (from the sun/disease) or an icon for coverage (mobile phone network or short term insurance).

The interpretation of iconic signs in line with these observations should therefore be done with reference to the context of utterances, genre context as well as discipline and domain specific conventions.

#### 3.6.3 INDEXICAL SIGNS AND ABSTRACT THINKING

According to Harrison (2003), indexical signs have no direct resemblance with the concept they signify. Rather, they can indicate something in the immediate proximity (Verspoor, Dirven, & Radden, 1999). Johansen and Larsen (2002) argue that in semiotics

terms, anything can function as a sign. For instance, the slant/incline of the trees could be interpreted as an indexical sign to imply the dominant wind direction in weather reports.

In advertising domain, indexical signs with positive connotations are also used to create a positive or desired relationship between a product and the concept represented (Vestergaard & Schroder, 1985). Also, indexical signs have distinct modal affordances with implications on reading, viewing and textual interpretation. Firstly, Indexical signs can be cognitively abstract (Van Niekerk, 2018). Cognitive abstract thinking is a basic requirement which underpins critical thinking skills (McCarson, n.d). With abstract thinking, readers go beyond concrete thinking to decode the concepts signified. Abstract thinking does not develop naturally; it is a product of culture, experience and teaching (Good Therapy.org, 2015).

Secondly, indexical signs have conventional meaning (Van Niekerk, 2018). As a product of culture and contextual experiences, people are likely to perceive semiotic features differently. While the eye registers a sign, it is the brain that is modelled by culture and contextual experiences learned or natural that will attribute a specific symbol to a given meaning (Mangan, 1978).

Indexical signs can be innately known or taught (Bradley, 2016). Numerous studies confirm the relevance of semiotics to the study of teaching and learning. For instance, Semetsky, (2010:1) argues for the relevance of semiotics to education on two respects:

on the one hand, teaching and learning have semiotic implications since they are both processes of semiosis; on the other, the study of processes of learning and teaching are part of, and contribute to, the study of the ontogeny of signs and communication, which is a branch of semiotics.

Jaipal (2010:67) established: the potential of semiotics framework to understand how multiple modalities are used in science classrooms to support, scaffold, extend, and reinforce meaning making in relation to a specific science topic

Giving an account on the importance of semiotics to teaching, Regan cited in (Danesi 2012) argues that semiotics examines fundamental and highly abstract concepts that are at the basis of education, namely the mind, learning and information. Similarly,

Cunningham (1987:214) argued that: “education based upon semiotic insights influences our conceptions of curriculum regarding knowledge not as a static structure to be learned or remembered.

### **3.6.4 SYMBOLIC SIGNS AND THEIR CONNOTATIVE SIGNIFICANCE**

There is no visual or conceptual connection between a symbol and the objects they signify (Harrison, 2003). Peirce cited in (Van Niekerk, 2018:113) noted that, “a symbol has no obvious link or similarity with the object it describes.” Van Niekerk (2018) made several observations concerning the affordances of symbolic signs.

#### **3.6.4.1 SYMBOLS (BOTH LINGUISTIC AND VISUAL) AND HIERARCHIES OF MEANING**

The first layer of symbolic meaning is the direct or literal meaning given to a sign; the second layer is the indirect meaning given to a sign (Shelestiuk, 2003). The direct meaning serves as a basis for the indirect meaning.

#### **3.6.4.2 SYMBOLIC MEANING (LEXICAL OR VISUAL) EVENTUALLY CHANGES**

Meaning given to symbols changes with time, culture and context. Brummett (2006:13) uses an example of a linguistic symbol “gay” which once meant to be happy or joyful. Now, the dominant thought associated with the word “gay” activates the idea of sexual orientation.

Similarly, Richard (2020) used an example of “silly” which once meant “blessed” and meticulous which now relates to the idea of mindlessness. According to CSOFT International (2015) major contributors to semantic change may include culture, other languages and scientific and technological advancement. In the 16<sup>th</sup> century, the word ‘bully’ had an equivalent meaning of words like darling or sweetheart respectively stemming from the Dutch word ‘boel’; in the 17<sup>th</sup> century it evolved to mean a blusterer and now the word is used to describe someone who harasses the weak (CSOFT International, 2015). Therefore, metaphor and metonym are regarded as the fundamental mechanism of symbolic transfer (ibid).



Furthermore, words are not inherently depictive of the signified. For instance, there is no a direct connection between the word “Mother” and its associated feminine features: fertility, procreation, compassion, fragility, nurturing and care. The meaning readers may give to the word *mother* will be based on its context of usage and the visual cues that reinforce the central message given in each text.

Symbolic meaning is also not fixed. Brummett (2006: 13) noted that, symbolic meaning can change without a change of a sign. Symbolic signs conversely are based on convention to convey mediated meaning and indexical signs on the other hand often exhibiting symptoms which could be indicative of the actual condition (Suhor, 1992; Johansen & Larsen, 2002; Rungrojsuwan, 2009).

### **3.6.4.3 SEMIOTICS AS A CROSS DISCIPLINARY FEATURE**

Semiotics serves distinct fundamental roles across disciplines. In the field of medical sciences, practitioners relied on symptomatic evidence as a diagnostic tool. Physicians were therefore able to make systematic representations of diagnoses based on signs and these allowed physicians to use semiotic evidence as adequate bases for their prescription and treatment of different ailments (Johansen & Larsen, 2002). In cognitive sciences, Zlatev (2015) successfully showed a link between human signification practices and how the link is manifested in human cultural practices. Based on their semiotic analysis of images, Wilson and Landon-Hays (2016) demonstrated the significance of semiotic approach as an instructional and pedagogic resource.

Examining the theory of signs and the role of the reader, Eco (1981) identifies three stages characterizing the evolution of semiotics to what is now called *contemporary semiotics*. Established in the sixties, the first stage focused on the structures, systems, codes, paradigm, semantic fields and abstract opposition (Eco, 1981). The stage not only focused on the recognition of signs; it also stretched to address the issues of how signs are defined in different contexts.

The second stage marked a shift from the emphasis on signs to texts where special focus was now on the generations of texts (Eco, 1981). The term *syntactic semantic structure* was used to capture the core activities characterizing this stage. The final stage of

semiotics captures what started from the seventies up to now (Eco, 1981). The stage has now shifted to cover pragmatics with its strong emphasis on reading and multiplicity of meaning given to signs (Eco, 1981).

The previous section provided an account of signs – iconic, indexical and symbolic. Interpretative skills associated with signs were explored. The next sections explore social semiotics and visual social semiotics. These branches of semiotics are used in this study to give an account on how signs and visual semiotics resources can be used and are interpreted as socially and culturally mediated resources.

### **3.7 SOCIAL SEMIOTICS**

Social semiotics is an extension of traditional semiotics. While traditional semiotics looked at meaning as something fixed in a text, social semiotics conversely considers meaning as something relative and subjectively embedded in readers' cognition and subjected to readers' contextual socio-cultural experiences (Bezemer, & Jewitt, 2009). In addition to the study of signs, social semiotics seeks to understand how people communicate through a variety of means in a particular social setting (A MODE INITIATIVE, n.d). It sees social context being central to the creation of everything (Dahlström, 2016).

Social semiotics includes formal semiotics and goes on to ask how people will use signs to construct the life of a community (Lemke, 1990:183). The definition of social semiotics offered by Hodge and Kress (1988) equally emphasises the centrality of culture in understanding signs and signifying practices and how they should be used or interpreted in context. Therefore, social semiotics considers meaning making as a mediated semiotic practice which is grounded on social contexts and the relationships people find themselves in (Harrison, 2003; Björkvall, 2009).

#### **3.7.1 OPERATIONS OF SIGNS IN SEMIOTIC SYSTEMS**

Signs operate within semiotic systems. Semiotics gives an account on the use of signs as signifiers of concepts, knowledge or ideologies (Fourie, 2009). It is seen as a base for complex literacy (Albers, 2006). According to Fourie, semiotics embraces four principal areas: the sign, the sign systems, codes and meaning. The study of signs

involves the type of sign; how signs are related to reality and how signs are related to users (Ibid: 2009).

Part of the objectives of multiliteracies framework is to explain how signs collectively constitute sign systems. The following are listed in (Fourie, 2009) as examples of sign systems: Language, nonverbal communication (gestures and, facial expressions). Nonverbal sign systems like cultural artefact and national cultural costumes are also considered examples of sign systems.

In response to emerging communicative developments which typify information-based society, proponents of multimodality identified a range of requisite interpretative repertoires attached to multiliteracies. These include a need to look beyond basic ability to read and comprehend texts (Luke, Freebody & Land, 2000). It requires a reconceptualization of the term literacy to accommodate the plurality of literacies, thus making the depiction of language as a collection of written words anachronistic in the new era (Unsworth 2001; Duncum, 2004). When different modes are brought together, students engage critically with a text; affording them an opportunity to explore a diverse range of sign systems and shared meaning (van Leeuwen, 2005).

Other proponents of multiliteracies introduced the term “New literacies” to outline emerging and requisite literacies attributed to digitization and increasing textual shifts. Gee (2005) used the term New Literacy to emphasise the depiction of literacy as a social practice. As part of a social practice, New Literacy is associated with the capacity to shape social relations and social structures (Barton, Hamilton & Ivanic, 2000; Larson & Marsh, 2005).

Reiterating similar observations on New Literacies, Gunther Kress explored a connection between New Literacy Studies and multimodal literacy as well as multiliteracies, and Critical Literacy (Kress, 1997; 2001; 2003). Pahl and Rowsellkate (2006:2), noted that, multiliteracies is associated with the following developments:

- a) A flow of meaning across sites i.e. from web to classroom.
- b) A flow of meaning across domains i.e. corporations to educational domain.
- c) The study of meanings in contexts.

d) The study of literacy practices in a multimodal context.

It is in keeping with these developments that literacy is now conceptualised rather as an evolving discipline underpinned by an assemblage of disparate disciplines which traditionally had been conceptualised separately.

### **3.7.2 SOCIAL SEMIOTICS AND PRAGMATICS**

There is a connection between social semiotics and pragmatics. The connection is established on the basis that, social semiotics like pragmatics systematically studies context dependent aspects of meaning (Horn & Ward, 2004). The connection between social semiotics and pragmatics is further supported by Bezemer and Jewitt (2009), who observed that social semiotics like pragmatics emerged with an intention to challenge traditions which downplayed social and cultural situatedness of meaning and power implications of meaning-making.

Social semiotics and pragmatics as interrelated linguistic phenomena espouse a functional perspective on meaning-making. The functional perspective on meaning making drew its impetus from Michael Halliday's theory on language use. Halliday's contention is based on the conclusive observation that people are the main agents who primarily shape semiotic resources of language as they use them to make meaning in different contexts (Bezemer & Jewitt, 2009). Halliday proposed three metafunction that signs can perform in each context –ideational metafunction, interpersonal metafunction and textual metafunction. The ideational function expresses something about the world; interpersonal function has to do with the positioning of people in relation to each other and the textual metafunction forms connections with other signs to produce a coherent text (Halliday, 1985; 1993).

### **3.7.3 VISUAL SOCIAL SEMIOTICS COMPARED TO SOCIAL SEMIOTICS**

Expanding on the specialties under social semiotics, Jewitt and Oyama (2001) introduced yet another branch of semiotics – visual social semiotics. Like social semiotics, visual social semiotics include: the description of semiotic resources, but its focus is on the description of what can be said and done with images and other visual means of communication (Jewitt & Onyam, 2001:136).

Visual social semiotics is therefore limited in scope compared to social semiotics. While visual semiotics predominately focuses on visual images, social semiotics provides a theoretical approach to the analysis of all aspects of meaning-making (Rodgers, 2004). Social semiotics explores the materiality and the affordances of written words, images, visual attributes, space, gestures and acoustic resources. It implies knowing what one can do and cannot do with a specific mode in a communication transaction.

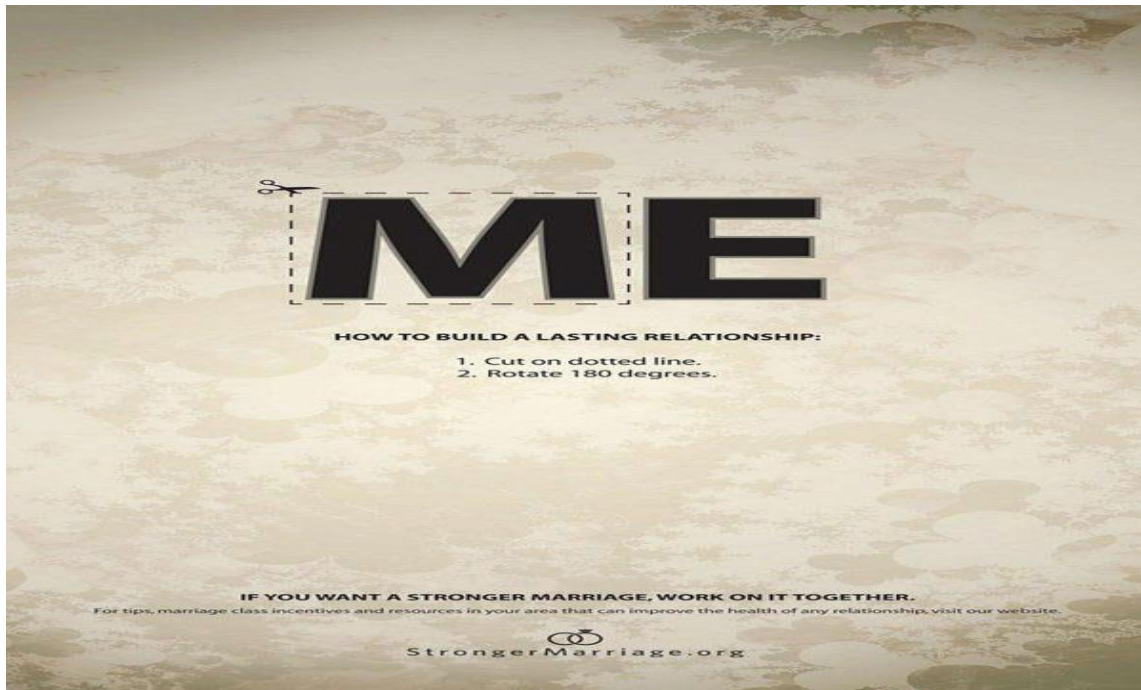
### **3.8 SOCIAL SEMIOTIC ANALYSIS OF MULTIMODAL TEXTS**

As highlighted in the preceding sections, social semiotics attempts to explore context dependent aspects of meaning to examine how people shape semiotic resources to make meaning. It also investigates the power implications of meaning-making and the functional perspective on meaning-making.

Gunther Kress and Theo Van Leeuwen adopted Halliday's metafunctions of language and modelled the theory for social semiotic analysis. The terms they coined are slightly related to Halliday's metafunctions of language: representational metafunction instead of ideational function; interactive metafunction instead of interpersonal metafunction and compositional metafunction which is related to the textual metafunction (Kress & van Leeuwen, 1996; 2002).

In the next section, social semiotic approach is used to analyse three selected multimodal campaign texts. Three metafunctions of language – representational, interactive and compositional metafunctions are used to further decode semiotic resources in the texts.

Figure 16



Source: Stronger Marriage.Org

### 3.8.1 EXAMINING REPRESENTATIONAL METAFUNCTION ANALYSIS

Representational metafunction analysis requires readers to identify people, places and objects within a text (Harris, 2003). Composite features in figure 16 above are a pair of scissors, and the dotted lines surrounding the word **ME**; the pronoun **ME** is placed at the centre and written in bold darkened black colour. The designer placed an expression: *How to build a lasting relationship* at the centre with suggested solution respectively:

1. cut on dotted line.
2. Rotate 180 degree.

At the bottom, the designer in figure 16 suggested to target audience: **IF YOU WANT A STRONGER MARRIAGE, WORK ON IT TOGETHER.** The text also shows two rings that are interconnected and placed at the bottom of the text with website link underneath: Stronger Marriage.org

Similarly, figure 17 below on representational analysis uses the following representational features:

- I) Images of a stem of a tree protruding to depict pregnancy, II) hands of a human being and an image of a tree

Figure 17



Source: Shanmathuran, 2011

<https://www.adsoftheworld.com/forum/110843>

The text also has linguistic expression: *Mother Nature too needs care and protection. Show her you care. By caring for trees. Love trees ... love nature.*

The second question on representational metafunction answers the question: "What are the signs (linguistic and non-linguistic) all about?" In addition to this, Harrison (2003:52) suggests the following questions for consideration as critical features of representational metafunction analysis:

- A. Who are the represented participants?
- B. Are there any vectors that indicate action?
- C. Are the human RPs looking at each other/ creating eye line vectors? If so, what does this tell me about the history of these people?
- D. If there are no vectors, what is the image trying to tell me in terms of social/cultural concepts? What types of conventional thinking do different objects evoke in me?
- E. Is the image a complex one with more than one process embedded within it? If so, how do these embedded processes add to my overall understanding of the image?

F. In terms of the overall document/Web site, does the choice of image RPs best enhance its intent and that of the text?

### 3.8.2 DETERMINING INTERPERSONAL METAFUNCTION

This stage of analysis focuses on three aspects of analysis: understanding the image act and gaze; social distance and intimacy as well as perspective (Harris, 2003). The eye line of the represented participant (RP) is directed to viewers.

Figure 18



Source: <http://www.ursdigitally.com/images/pagegallery/jewels-forum.jpg>

The text is titled: **THE UGLY FACE OF MANKIND** with a compelling message underneath: *Save the other half before the wildfire spreads* which is directed to any person reading the text. The image act and gaze are positioned to be direct, confrontational and personal.

In terms of social distance, between the RP and the viewer, the image in the text is closer to the reader to personalize and direct the message to the targeted audience. The perspective of a text can be either horizontal or vertical. Vertical perspective suggests power of the RP while horizontal viewing and viewer involvement suggest potential relationship between the RP and the viewer.



### 3.8.3 EXAMINING THE COMPOSITIONAL METAFUNCTION

Visual syntax like linguistic syntax traces the visual elements of a multimodal text (Moody, Heymans, & Matulevičius, 2010). When readers decode texts at a level of compositional metafunction, Harris (2003:55) question: How do the representational and interpersonal metafunctions relate to each other and integrate into a meaningful whole?

Important aspects of analysis at this level include visual syntax, information value, salience, framing and modality. The three figures – 16, 17 and 18 respectively use a range of semiotic resources with specific conventional signs that carry distinct meaning in each context. **Salience** is a tool where text designers use size, focus and foreground to ensure the rhetoric unit of a text (Harris, 2003). Salience is also used to direct the viewer's attention into a visualization. To ensure salience COURSERA (n.d) suggested the following design features to be affected: using colours sparingly to minimise distractions and learning to use shades that command attention. The second feature of compositional metafunction is Modality. **Modality** focuses on all modes of representation which are part of the text colour, symbols, images, words, alignment, font size, pattern, spatial orientation and positioning etc. All these modes are often used in multimodal texts to convey both denotative and connotative meaning.

### 3.9 CONCLUSION

Chapter three highlighted theoretical frameworks which are inherently interrelated. Presented as uniquely unified, the frameworks provided an interpretive lens through which semiotic modes are decoded in their context. Examples of multimodal texts explored demonstrated how elements of semiotic designs (linguistic, spatial, visual and gestural) can be decoded with context relevance. IMSM illustrated how modes are compartmentalised across strata.

The next chapter introduces research design and methodology adopted in the study.

## CHAPTER FOUR: RESEARCH DESIGN AND METHODOLOGY

### 4.0 INTRODUCTION

The current study focuses on two interconnected central objectives. Thus, it explores the affordances of integrated semiotic modes on selected multimodal texts and the interpretative perspectives/repertoires displayed by University of Venda level 300 Media Studies students. In line with these objectives, the current chapter presents research design which encompasses the central assumptions, research paradigms that underpinned the study. Research methodology, data collection methods and analysis are explicated in line with the central enquiry of the study. Subsequent sections of the chapter highlight the context of the study, population, sampling procedure and ethical considerations.

### 4.1 RESEARCH DESIGN

Research design is defined in Babbie and Mouton (2001) as “a plan or blueprint for the study.” It summarises the steps or patterns that the researcher followed to realise the central objectives of the study.

An expanded definition is captured in Huysamen (1993:10), who describes research design as a blueprint giving an account on how data was collected to investigate the research question in the most economical manner. A similar explanation is highlighted in Bless and Smith (1995: 63), who like Huysamen caution that research design should preferably specify the most adequate operations to be performed so that investigations can be feasibly conducted under the given condition.

As highlighted above, research design is constructed with foresight against potential limiting constraints that may affect compromise validity and the reliability of findings which may potentially render the entire process implausible.

Broadly explicated, research designs vary across disciplines and context. It is therefore the nature of enquiry and the type of requisite data explored to validate the stated assumptions or hypothesis.

The following basic steps are highlighted in Creswell (2007) as essential components of research design, applicable to studies which investigate abstract concepts of social science orientation.

- (a) Conceptualisation of a problem;
- (b) The writing of research questions;
- (c) Data collection and analysis
- (d) Interpretations;
- (e) Report writing

This does not necessarily classify social science enquiries as systematically rigid with a fixed set of steps to be observed in a linear pattern. Rather, it is a cyclical process which involves a series of recurring reflections and iterative methodological applications (Van Rensburg, Alpaslan, Du Plooy, Gelderblom, Van Eeden, and Wigston, 2010)

Miller and Brewer (2003:262) posit that, research design can be deemed fit for purpose as long as it enables the researcher to “logically discharge the burden of proof on a claim and confirm or reject specific assumptions in qualitative research or hypotheses in quantitative approaches.”

Also, as an architectural plan of a study research design explains the role of the researcher with clarification of meaning explored and a reflection on the final product of the study (Vanderstoep & Johnston, 2008; Tavakoli, 2012).

Research designs are also clarified in terms of primary goals intended and on how data would be used to understand the phenomena investigated. For instance, applied research designs are aimed at solving an existing problem in a specific context; whilst, on the other hand, studies that are designed primarily to contribute substantially to a body of knowledge are categorised as basic research (Bentley, Gulbrandsen & Kyvik, 2015). The affordances of non-linguistic signs particularly for pedagogic purposes are under explored. As contemporary communication developments are gradually shifting towards contemporary classroom, a study on multimodal affordances would generate knowledge of social and pedagogic significance. The current study is therefore categorised as basic research which aimed to explore the affordances of semiotic designs on multimodal texts and implications these would have on literacy offering particularly in academic domain.

Also, the way the researcher manages and uses collected data plays a significant role in conceptualising the study's design. In line with this viewpoint, research design can further be extended as either: exploratory, explanatory, descriptive, evaluative or predictive. The study would as a result be considered coherent if research questions listed in the study and data analysis procedures applied are understood to be in line with the central enquiry of the study.

The current study is both explorative and descriptive as explicated below in line with the central enquiries of the study.

#### **4.1.1 EXPLORATORY RESEARCH DESIGN**

Exploratory design is mainly suited for studies which have few or no substantial literature base to rely on for the prediction of outcome (Lodico, Spaulding, Voegtle, 2006). In line with its central formulation, exploratory studies enable the researcher to explore the central tendency, variability and correlations (Flood, Lapp, Squire, Jensen, 2005). As one of its attributive feature, it permits the researcher to gain insights and familiarity as well as establishing a deeper understanding on the phenomena explored (Pratap, 2019). Multimodal representation is a composite product of diverse epistemological disciplines ranging from Arts, Anthropology, Cultural Studies, Linguistic and Media. It explores how linguistic and non-linguistic signs as cultural resources can be used to convey conventional meaning in the context of a text. It is with this understanding that, the researcher purported to explore multimodality as an emerging communicative development and the associated pedagogic and epistemological implications to literacy practices in academic domain.

Distinctive features of exploratory research design as summarised in Jupp (2006:110) are additionally identified as a type of research which is not confined to a pre-set formula; flexible, pragmatic and yet an intensive type of research; and is also considered a type of research that constitutes a distinct form of discovery. This attributive feature is inherently qualitative in orientation. Predicated on semiotics theory, social semiotics and multimodal critical discourse analysis, the researcher elucidated the depiction of signs (linguistic and non-linguistic) as signifiers of or referents to conventional meaning which then must be decoded as conventional signs with contextual relevance.

Manifesting its exploratory nature, the current study also explored the aptness of inferences that respondents would make when decoding texts with multiple semiotic modes. Interpretative aptness is a fundamental feature of critical literacies which among other competencies: explore the connotative, denotative meaning and the lucidity of justifications or implicatures as readers or text decoders decode meaning embedded on a given multimodal text.

In a nutshell, multimodal texts are complex texts comprised of different semiotic designs which can be used to convey deep subtle issues of social, political and cultural significance hence the study gravitated towards explorative design.

#### **4.1.2 DESCRIPTIVE DESIGN**

Research designs with descriptive orientation are aimed at discovering and understanding a phenomenon, process, or the perspectives and worldviews of the people or subjects involved (Caelli, Ray, & Mill, 2003; Merriam, 1998). Studies which are descriptive in nature are conducted in a real-life natural setting and the researcher's role often entails the description of attitudes, behaviours and perspectives during the investigation (Johnston & Vanderstoep, 2009).

Kowalczyk (2015), recommends descriptive design for studies which intend to describe and depict participants in a most accurate way. Using Relevance Theory, which assesses the aptness of a given interpretative perspective in the context of a text, the researcher described the interpretative repertoire displayed or were exhibited by University of Venda level 300 Media Studies students on texts with multiple semiotic designs. The study therefore described respondents' interpretations of semiotic designs and modes on a given multimodal text. The findings of a descriptive study provide a researcher with a general overview of the phenomena investigated without necessarily imposing generalisation to the entire context.

The dominance of monomodal print based literacy instruction in academic context may imply that pedagogic interventions to augment the reading and comprehension of multimodal texts could be one of the under explored domains. There is therefore a clear

connection between explorative design and descriptive research but with distinct emphasis towards an intertwined goal.

Whilst the exploratory part of the study also provided theoretical base through which multimodal texts can be constructed, deconstructed, decoded and comprehended; descriptive design in this study, focused on the actual interpretative practices and the subjectivities generated in the process.

Research methodologies such as case studies, ethnography and action research are as a result often adopted to explore and describe respondents' actual experiences and/or perspectives on a range of phenomena of social and pedagogic significance.

#### **4.1.3 EVALUATIVE RESEARCH**

Evaluation is an integral component of programmes' review. It can be done cross sectionally or longitudinally. Although evaluative research is often done in a small scale, academic practitioners as internal based researchers may conduct cross a sectional evaluative study for several reasons. Johnston and Vanderstoep (2009:216) suggest evaluative research in instances where one would like to:

- assess the effectiveness of a programme or course of action;
- identify requisite interventions in solving a specific problem;
- compare the effectiveness of various teaching models.

Although evaluation is not the central objective of the current study, the researcher is of the view that the interpretative perspectives that respondents would display can provide requisite data for appropriate epistemological and pedagogic intervention in line with the central enquiry of the study.

Proponents of multimodality, like Gunther Kress and Theo van Leeuwen acclaim multimodality for its inherent comprehensive focus on diverse semiotic modes (linguistic and non-linguistic) to convey both literal and subtle connotative ideological meaning. For this reason, the reading of multimodal texts is inevitably informed and aligned with Critical Literacies' perspective with emphasis on a reflective reading transaction, critical questioning stance toward the forms and content of print and electronic media (Tyner, 1998; Davis & Reed, 2003) as well as reading efforts aimed at exploring beneath the

surface of discourse to understand implicit ideologies and agendas in a text (New London Group, 1996; Warnick, 2001).

Evaluative design is also preferred in instances where the investigator intends to evaluate the nature of programmes with emphasis on value judgment (Ritchie & Lewis, 2003). Weiss (1972) also endorses evaluative research for occurrences where assessment of operations is central to the study. Additionally, evaluative research design can be adopted for the purposes of:

gaining insights about a project or program and its operations;

Improving practice;

Or building capacity (Bhat, n.d).

Motivated by an urge to build capacity or improve their pedagogic professional practices, university teachers, by virtue of being exposed to both generated and natural data, they can adopt evaluative design for varied purposes: establishing insights on any phenomenon of epistemological, ontological, axiological and methodological relevance peculiar to their operational context. The current study, as mentioned before is primarily explorative and descriptive in scope and in focus.

## **4.2 ASSUMPTIONS, PARADIGMS AND INTERPRETIVE FRAMEWORK**

As articulated in Creswell, (2007:15) assumptions reflect the ontological, epistemological, axiological and methodological position of the study. They deal with the nature of reality; the nature of knowledge; values and methodological implications on practice.

Whilst assumptions can be depictive of researcher's stance, Guba and Lincoln, (1994:17) conversely view paradigm as "a set of basic beliefs that deal with the ultimate or first principles."

Interpreted as world views, paradigms are lenses through which researchers understand the subject or phenomenon investigated. For this reason, it is imperative according to Kuhn (1970), for researchers to give a comprehensive account to the following set of questions:

(a) What phenomenon is to be observed or scrutinised?

- (b) What kind of questions are to be asked and probed for answers in relation to the subject enquired?
- (c) How are these questions supposed to be structured?
- (d) How are the results of scientific investigations interpreted?
- (e) How is the enquiry conducted, and what equipment are available to conduct the experiment?

Although the current study is oriented towards constructivism and participatory design, a brief account is given as well on positivism and pragmatism paradigm and their methodological implications.

#### **4.2.1 POSITIVISM**

Studies aligned to positivism paradigm often focus on explanatory associations and empirically based findings (Park, Konge, & Artino, 2020). It is usually linked with the observables that can be knowable through sensory experiences (Tavakoli, 2012). Being primarily associated with quantitative approaches, positivism research design establishes casual relationships that exist between variables (dependent and independent) using large sample sizes.

In view of its insistence on the requirement of large sample size, making generalisation is recognized as a standard feature characterising or underpinning positivism paradigm.

Also, as one of its axiological assumption, positivism paradigm values the principle of objectivity and conscious avoidance. The researcher is as a result often detached from the study hence its main emphasis is on replicability of findings which is achieved using controlled experiments (Park, Konge, & Artino, 2020).

#### **4.2.2 PRAGMATISM**

Pragmatism is uniquely associated with mixed methods research (Parvaiz, Mufti, Wahab, 2016). It is designed to challenge the old age philosophical argument on what constitutes the nature of reality and the possibility of truth (Morgan, 2014). Pragmatists endeavour to reconcile two opposite claims on reality and the role of human experiences on the realisation of truth as posited by researchers with a positivist and constructivist inclinations respectively.



Whist positivists believe that the world exists independently of our understanding; constructivists on the other hand, maintain that, it is rather our individual conceptions that would ideally create the world.

In their reconciliatory stance, William James, John Dewey, and Charles Sanders Peirce, the pioneering pragmatists, wrote extensively to breakdown the dualistic dichotomy between realism and idealism. Re-enacting this reiterated assertion, Morgan (2014) and Brinkman (2018) suggest that:

*our experiences in the world are fundamentally constrained by the nature of the world; on the other hand, our understanding of the world is inherently limited to our interpretations of our experiences.*

In a nutshell, pragmatism views data elicited from the world, and that of our perceptions of it in theory, as significant and of equal weight hence the two views are viewed as interconnected, and essential to our understanding of reality (Tavakoli, 2012:484)

As mentioned before, the current study has adopted a constructivist and participatory/advocacy paradigms which are both explicated respectively in line with the central enquiry of the study.

#### **4.2.3 SOCIAL CONSTRUCTIVISM**

Constructivists maintain that knowledge is a product of social constructions with relative/comparative consensus. They also contend that, knowledge is inherently multiple, and it can coexist when those believed to be competent or trusted interpreters disagree (Guba & Lincoln, 1994). As much as textual interpretation could be a subjective activity, Critical Literacy, which is inherently a special feature of multimodal literacy, argues in affirmation, the need to evaluate the aptness inferences and the plausibility of argument or interpretative perspectives assessed or evaluated against the context of a given text.

Critical constructivism also entails assessing respondents' perspectives against possible inherent ideological perspectives. Multimodal representations as well as the reading and deconstruction of multimodal texts is as a result comprehended in this study with a social

constructivist approach which in line with Fajardo's (2016:31) interpretative principles would involve:

- (a) a conscious assumption that texts are not neutral and that, they are always informed by authorial bias;
- (b) unearthing authorial intentions and ideologies, reconstructing or challenging them, and exploring multiple perspectives;
- (c) equipping individuals with a heightened awareness of how semiotic elements in texts reveal messages that may impose authors' ideologies, thereby creating cultural supremacy and maintaining social hierarchies, or marginalising certain cultural groups.

This is also reiterated in Gurak, (2001) and in New London Group (1996) who conclusively outlined the following basic interpretative skills that should characterise the reading of multimodal texts:

- (a) Looking beneath the surface of discourse and to understand implicit ideologies and agendas;
- (b) Understanding how social contexts may affect the construction of texts and how texts are understood,
- (c) Appreciating semiotic resources as cultural products of linguistic diversity.

Constructivism paradigm is also underpinned by transactional and subjective ontological assumptions (Guba & Lincoln, 1994). As students cannot separate themselves from their contextual subjective realities, it is arguably a matter of pedagogic significance to establish reason and the extent to which participants' subjectivities would be different from sanctioned ideals in the context of the text

Methodological stance which characterises constructivism is viewed as hermeneutical and dialectical (Guba & Lincoln, 1994). As broad as it is, transactions underlining hermeneutics is the depiction of reading as an act of code decryption and textual deconstruction.

In the same vein, text deconstruction is appraised in Jupp (2006:64) for its insistence on unearthing multiple meaning and perspectives embedded in a text. The role of the reader

would therefore be to unearth potential subtle multiple meaning deeply rooted in each text – monomodal or multimodal.

A similar phrase to text deconstruction is “cracking the code” which as used in Berlin’s (1993:5) study on *Literacy, pedagogy, and English* involved the examining the following interpretive repertoires:

uncovering ideological meanings hidden in texts; liberating students from the snares of mass mediated popular culture which may be perpetuating hegemonic cultural and political ideals; and, to help in developing ‘critical consciousness’ in students’ reading transactions.

Social constructivism also reiterates fundamental principles behind multiliteracies and multimodal affordances (Gurak, 2001; New London Group, 1996). These include the expansion of meaning-making practices where all semiotic modes are embraced as potential signifiers which are used to construct meaning in view of their capacity and materiality. These modes often come with discipline and socio-cultural specific meaning hence the use of relevance theory which evaluated the aptness of responses in the context of the given multimodal text (Kovalala, 2002)

#### **4.2.4 PARTICIPATORY PARADIGM**

Participatory/advocacy paradigm is conceptualised in this study in line with its emancipatory inclinations (Kemmis & Wilson, 1998). Emancipatory research in educational context puts more emphasis on knowledge generation mainly for the benefit of a group that is perceived to be disadvantaged or marginalised. Multimodality proponents advocate for the recognition and use of all semiotic modes as potential signifiers of equal significance. With this proposition in mind, exploring modes as cultural conventions would be a right step towards the expansion of critical literacies and cultural literacies which are not fully explored for the benefit of students who in general come to institutions of higher learning with distinct interpretative capacity.

Kemmis and Wilson (1998) view participatory/advocacy paradigm as dialectical which puts special emphasis on change in practices. Proponents of multimodality consider monomodal print based literacy instruction as unresponsive to contemporary

communicative developments (Jewitt, 2008). It calls for a multiliteracy pedagogy which among others advocate for:

Language instructions that focus beyond linguistic modes (Stein, 2008); Increased role of images and the need for critical visual literacy in school (Bamford, 2003; Unsworth, 2006) and the adoption of literacy instructions that teach students to read and write across multiple semiotics modes (Cope & Kalantzis, 2009)

Reform agenda is a central feature of a participatory/advocacy paradigm (Kemmis & Wilson, 1998). The necessity for reform in any context should be underpinned by empirical evidence. In the same vein, multimodality does not advocate for the dominance nor preference of one mode over the other. It advocates for the recognition of all modes as potential signifiers which should be used based on their capacity to convey intended meaning in different contexts. Exploring multimodal affordances and interpretative repertoire is therefore a matter of both pedagogic and epistemological significance in view of the rapid changes that are characterising contemporary communicative developments of the 21<sup>st</sup> century.

The quest for multiliteracies as a new path to New Literacies, is informed by participatory/advocacy paradigm. This is manifested by its call for: a responsive curriculum which embraces emerging developments that have a bearing on meaning making and communication practices. Its emancipative imputes is driven by the quest to challenge hegemonic ideals (cultural or ideological) which could be linked to readers' cognitive and individual socio-cultural experiences. These views are encapsulated in Creswell (2007:22) who acknowledges this paradigm for its potential to:

infuse change in practices;  
create political debate which may challenge hegemonic ideals;  
as well as engaging participants as active collaborators in the enquiry.

The assumptions underpinning the adopted paradigms are inherently qualitative in orientation and in design. They are mainly the features of interpretive framework which is often used loosely or interchangeably with qualitative research.

Despite a sporadic use of descriptive percentages, they were mainly meant to establish the frequency of themes hence the current study is categorised mainly as qualitative. The numerical percentages are not entirely for statistical purpose nor intended to measure causal relation of variables.

### **4.3 QUALITATIVE RESEARCH**

Contrary to quantitative studies, which put emphasis on statistical impetus to establish objectifiable truth, qualitative researchers pursue in-depth participants experiences and perspectives that confirm multiple realities (Creswell, 2007:16). Multiple realities can be explored, interpreted or described through the lens of a given interpretive framework or world view/s. As mentioned before, the current study explores multimodal affordances and the semiotic significances of modes on a given multimodal text.

Qualitative research is underpinned by the assumption that knowledge is inherently contextual, relative with multiple realities that are contextually plausible or relevant (Mason, 1996; Johnston & Vanderstoep, 2009). The pursuit of knowledge and reality in line with qualitative perspectives cannot be regarded as conclusively concrete nor fixed but it is understood as an abstractly relative phenomenon.

This is parallel to quantitative research perspective which conclusively categorises knowledge as something fixed, objective and quantifiable awaiting extraction through rigorous, systematic and scientific investigations (Bogdan & Biklen, 1997; Johnston & Vanderstoep, 2009; Allen, 2017).

The communicative functions of semiotic modes and their inferential meaning were explored through the principle of methodological pluralism. In this context, multimodal critical discourse analysis to unearth potential meaning embedded on a given multimodal text while respondents' interpretations of semiotic modes were assessed against the propositions of relevance theory and social semiotics which conclusively argue for the reading and interpretation of all signs (linguistic or non-linguistic) in the context of the text for plausibility and credible implicatures.

This does not necessarily suggest that qualitative studies lack rigour or systematicity to an extent that it may not warrant scientific enquiry.

Being less concerned with objective reality, and with less emphasis given to precise statistical measurements, qualitative researchers focus mainly on participants' attitudes, perspectives and experiences on the phenomenon investigated.

Therefore, systematicity and rigour are realised through persistent adherence to cohesive and plausible descriptive elucidations of assumptions and the context of the study (Mays & Pope, 1995). It is also established through data collection methods and data analysis procedures which according to Dodge, Holtzman, van Hulst and Yanow (2016) are often reflective and iterative.

Qualitative study incorporates quotes to provide participants' perspectives (Creswell, 2007:41). In line with the observations made by Corden and Sainsbury (2006), verbatim quotes are used as well in this study to:

- a) Present evidence;
- b) Present spoken words for explanation;
- c) Show illustration;
- d) deepen understanding;
- e) Reflect respondents' voice;
- f) Enhance readability.

In the same vein, respondents' interpretive narratives on the functions and semiotic significances of modes were also presented as quotes in line with Corden and Sainsbury's (2006) justifications. Respondents quotes were also used to provide explanations, illustrations and to deepen understanding towards the phenomena investigated.

Contrary to quantitative studies which inherently require large sample size to provide adequate base for generalisation, Dawson (2007:16) observed that, although there could be fewer people taking part in a qualitative study, the emphasis is not on generalisation. Conversely, the natural contact with few respondents often lasts a lot longer than in quantitative studies to elicit rich data for the study.

The emphasis in this study was to explore and describe the interpretative perspectives on semiotic modes by University of Venda level 300 Media Studies students. In line with this objective, the researcher administered a test modelled on Chan & Choo's (2010) Multiliteracy Assessment Framework designed in line with the objectives and research questions of the current study. Diarised notes were also kept in the entire process of test administration.

In a qualitative study, researchers are considered key data collection instruments (Creswell, 2003). Qualitative researchers as well as in this study used respondents' data and his/her interpretive perspectives to make sense of the investigated phenomena. Theoretical perspectives as interpretive framework may range from postmodern perspective, feminist theory, critical theory and critical race theory. As articulated in this study, multimodal critical discourse analysis and social semiotics weigh heavily towards the interpretive perspective; they call for the application of a pervasive lens or perspective on all aspects of meaning-making when exploring a given phenomenon.

Additionally, as Dawson (2006:21) observed, qualitative research design is characterised by the frequent use of words such as 'discover', 'motivation', 'experiences', 'think/thoughts', 'problems', or 'behave/behaviour'. Its emphasis is on intangible observations understood through interpretative worldviews.

#### **4.4 QUANTITATIVE RESEARCH DESIGN**

Quantitative research design puts more emphasis on the generation of statistics (Dawson, 2006). Its purpose is more predictive than descriptive (Johnston & Vanderstoep, 2009). To achieve this, quantitative researchers often use large scale survey research such as questionnaire or structured interviews which may not require a prolonged face to face interaction with study's participants. Since its emphasis is not on participants' subtle contextual experiences, it is an ideal design for reaching large scale population size hence it is not ideal for the current study.

According to Mouton and Marais (1990: 155–156), quantitative research design is highly formalised and more explicitly controlled with its range more exactly defined than the qualitative approach. It is also important that methods in a quantitative research be

described in detail (Johnston & Vanderstoep, 2009:169). The need to formalise and describe methods is intended to make sure that such a study can be replicable, and this was not the central focus for the current study.

The methodological rigidity associated with quantitative research design has numerous implications on the part of researcher. Its emphasis on objectifiable truth implies that, researchers' interpretive perspective would feature less in this type of design. Also, quantitative researchers are more inclined to use deductive methods where reasoning flows from a theory/hypothesis to systematic empirical observation to conclusion (Johnston & Vanderstoep, 2009).

The characteristic features of a quantitative research as identified in Johnston & Vanderstoep (2009:7) include:

- Using numeric data to describe phenomenon studied;
- Adopting descriptive and inferential statistics as central modes of analysis;
- Regulating the scope of inquiry by using a pre-set of set questions and hypothesis
- The use of large sample and statistical validity to accurately reflect the population
- Superficial understanding of participants thoughts and feelings as the identified primary disadvantage.

As highlighted before, these characteristic features were not exhaustively applicable to this study.

#### **4.5 MIXED METHOD RESEARCH DESIGN**

Denzin, (1970) examined how mixed method research design was originally comprehended as a research method. In its earliest form, it did not imply the combination of quantitative and qualitative method but the use of multiple forms of qualitative research methods in the same research project (Denzin, 1970). Hashemi and Babaii (2013) expressed a different view depicting it as a method which is underpinned by a combination of at least one qualitative and at least one quantitative component. Such combinations may also range from empirical materials, perspectives and approaches (Flick, 2002, 2007; Gorard, & Taylor, 2004).



Tashakkori and Creswell (2007) identified the following typical activities as characteristic features of mixed method research design: collection of data for analysis; integration of findings, drawing of inferences with the aid of both qualitative and quantitative approaches in the same program of inquiry. Such a mixing may be evidenced right from research questions, sampling, data collection analysis and interpretation (Yin, 2006; Bergman, 2008).

Instead of adopting mixed methods research design, the current study used qualitative approach with methodological pluralism. It is viewed in Barker and Pistrang (2005) as the adoption of multiple qualitative methods which are intended to analyse the same data set. Reasons for adopting methodological pluralism abound however, for the purpose of this study, the following two are applicable: to extract as much meaning as possible from a text (Frost, 2009) and for the purpose of generating complementarity between findings (Barnes, Caddick, Clarke, Cromby, McDermott, Willis, and Wiltshire, 2014).

#### **4.6 METHODOLOGY**

According to Jupp (2006:175), research methodology reflects the philosophical stance or worldview that underlies and informs a style of research. This is reiterated in Dawson, (2006:15) who posits that, methodology gives a clear perspective on the philosophy or principles that inform the structure and content of research project. It is also noted in Jupp (2006:175) as a composite of distinctive features, namely, methodological philosophy, rules of science, epistemology and ontology (Jupp,2006).

Whilst research method clarifies the procedures of data collection; research methodology, conversely accounts broadly for data collection methods, the applicability of research methods in the context of study which in turn accounts for the validity of study (Moodley, 2013).

In order to formulate or adopt an accurate research methodology for a specific study, Rajasekar, Philominathan and Chinnathambi (2013), advised that, it would be important for researchers to examine which method would be suitable in exploring the phenomenon studied; explain the efficiency of the method in a study as well as accounting for the order of accuracy of the result of a method. When all these aspects are accounted for, it is most

likely that the researcher would be most likely capable to address the central research questions of the study (Rajasekar et al, 2013).

As explicated in the next section, the current study adopted Action Research methodology by virtue of it being a context-based practitioner-initiated research methodology. Its applicability to the current study expounded in line with its distinctive features and the study's central objectives.

#### **4.7 ACTION RESEARCH METHODOLOGY**

There are competing views on the requisite fundamentals that should inherently constitute action research studies in an educational context. Assuming a constricted methodological position, there are ardent action researchers who support a fixed adherence to pre-set of steps to warrant a credible action research methodological undertaking. Espousing this view are proponents like Kemmis and McTaggart (1988) who maintain that action research is uniquely underpinned by inevitable principles such as: being a practitioner-based type of enquiry and a collaborative research which should be adopted only if the intention is to initiate change in practitioner's professional context.

The phrase "a situational based enquiry" has also been used in Cohen and Manion (1985) who like Kemmis and McTaggart (1995) concur that, action research as a practitioner context based enquiry has as its main impetus, an enquiry driven to confront and address problems that could be of major concern to practitioner's professional practice. This view is equally shared by methodological advocates like Elliot (1991), Bassey, (1995) and Tomal, (2003) who respectively depict action researchers as change agents who conduct enquiries in their operational centres or practices to address or bring change to an undesirable phenomenon in a specific context.

Adopting a more flexible disposition, Nunan (1992) cautions against a rigid methodological dogma for its potential limiting repercussion and implication for practice. This view is in keeping with the highlighted methodological pluralism where multiple methodologies could be combined or integrated to deeply investigate the same phenomena mainly to compensate for the weakness of the other.

In keeping with Nunan's perspective, the current study adopted action-based research without necessarily prioritising change as its central drive. Conversely, the study adopted action research in keeping with explorative paradigm which in this context was to understand multimodality as an emerging feature in educational domain. It purported to describe respondents' interpretative repertoire as corpus for requisite pedagogic intervention for a potential textual shift which now embraces all semiotic modes as potential signifiers.

Multimodal representation in a classroom poses a potential textual shift which has subtle epistemological and pedagogic implications hence explorative design paradigm modelled the study.

Burns (2010) used the phrase 'reflective practice' to project action research as a context-based enquiry allowing practitioners to make careful considerations of their professional practice or epistemological expertise. Without being necessarily driven by change, action researchers can also be portrayed as reflective practitioners who may need to make critical reflections on emerging phenomena of epistemological significance in their professional practice.

Also, Basey (1995) used the phrase 'insider research' while Burns (2010) used the phrase 'context-based research' to explicate the bounded type of research activity that characterizes action-based research study. Being an insider-based research activity, action research has its inherent merits as well as demerits which need to be carefully considered to ensure reliability and credibility of findings (Chaudron, 2001; Brannick & Coghlan, 2007).

The merits linked to action research as a context-based research methodology include among others:

1. The practitioner/researcher may have immediate access to privy institutional documents which may not be readily available to external investigators.
2. The practitioner as a primary investigator has a better understanding of the complexity of phenomena investigated in the context of the study.
3. The researcher as a context-based practitioner is often better placed to initiate collaborative endeavors with either inside participants (students) or with

colleagues to investigate issues of both pedagogic and epistemological significance for the purpose of professional capacity development.

4. Also, an inside researcher has wide platforms to disseminate and to share reflective perspectives in different platforms. In this context, the following platforms departmental seminars, school-based research colloquia and organised national/international conferences were ideal.

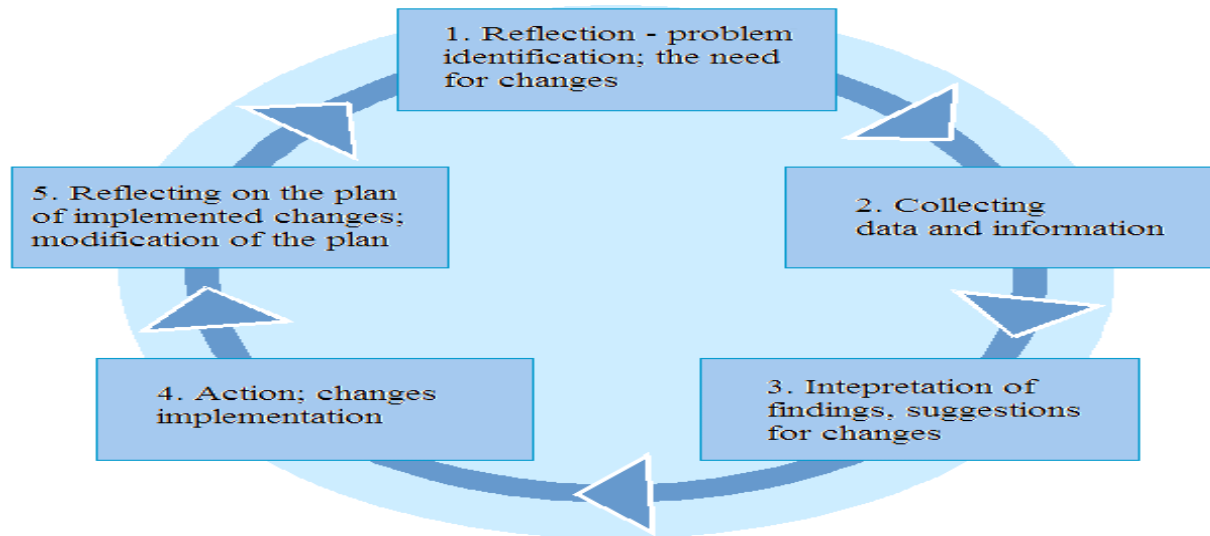
Likewise, the current study was initiated by an inside researcher, an academic practitioner in his professional space of practice which is University of Venda, School of Human and Social Sciences, (HSS) under the Department of English. The researcher's area of operation is Academic Literacy which has started evolving into a multifaceted domain with subtopics such Critical Literacies; Digital Literacy; Visual Literacy and Cultural Literacy rapidly featuring as core requisite literacies of the 21<sup>st</sup> century communicative era (Metros, 2008; De Koning & van der Schoot, 2013; Coscarelli & Ribeiro, 2018).

Action research, like case study, can be identified as a bounded research activity. It is defined in Creswell (1998: 61), as an exploration or an in-depth analysis of a "bounded system. In Stake (1995), it is defined as a "specific, complex, functioning thing," in a bounded system. Parameters often used to refine case studies often include space, time and purpose (Vanderstoep & Johnston, 2008). In a case study, the researcher presents an analysis of the major themes or issues that emerge from the investigation, and may also provide interpretations or recommendations (Stake, 1995; Stake, 1994. The outcome in a case study is the description and interpretation of the case under study. In this context, multimodal affordances and the interpretative perspectives of University of Venda level 300 Media Studies students.

Also, action research is conceived as a cyclic process (Drummond & Themessl-Huber, 2007; Davison, Martinsons, & Kock, 2004; Bassey, 1998). The current study was modelled on Sousa's (2011) cyclic steps applicable to action research.

The cyclic steps in question include identification of the problem, systematic collection of data, analysis of the collected data, acting based on the data, conducting evaluation, making reflection on the results and, if needed, redefining the problem.

## 4.8 CYCLIC PROCESS FOR ACTION RESEARCH



Source: Sousa, D (2011)

The first step of the cyclic process involves making reflections, identification of problem and the need for a potential change within researcher's place of operation. In an educational context, typical problems worth exploring could be of pedagogic, epistemological or administrative nature. In this context, the researcher made reflections on the plurality of semiotic designs characterising contemporary communicative practices and the inherent gap which seems to be widening rendering monomodal literacy inadequate. The implications associated with these changes are of both pedagogic and epistemological concern.

### 4.8.1 DATA COLLECTION METHOD

The second cyclic process involves data collection which as an inside based research, the practitioner has ample options in line with the central enquiry of the study. In line with this view, Sousa (2011) depicts the classroom as a laboratory in which teaching, research and learning processes meet and interact. This implies that as an insider, the investigative teacher is potentially privy to a wide range of data (natural or generated). These can be used as long as they are presumed fit for the purpose.

For the purpose of this study, the study adopted an administered test for data collection. In line with the complexity of the phenomena investigated, a Framework for Assessing the interpretation of Multimodal Texts as adapted in (Chan & Choo, 2010) was adapted for the study. Underpinned by bloom taxonomy orientation, Multimodal Framework Assessment (MFA) entailed a composite of formulated questions which evaluated respondents' capacity to read, decode and comprehend meaning given through an ensemble of semiotic modes in a multimodal text. It also evaluated the aptness of inferences readers would make in the context of a given text.

Annexure 1A reflects the types of questions designed in line with MFA with categories of questions covering different levels of analysis.

<b>Category</b>	<b>Levels of analysis</b>
Category 1:	1: Focuses on the theme, subject or obvious content;
Category 2:	2: Focuses on inferred content and connected content;
Category 3:	3: Pays attention to connected inferred content;
Category 4:	4: Identification of explicit and implicit claims;
Category 5:	5: Analysis of argument;
Category 6:	6: Analysis of audience;
Category 7:	7: Analysis of thematic representation.

**Source: Adapted from Chan and Choo (2010).**

Contextualised to the current study, the formulation of questions as indicated in (**appendix 1A**) were modelled around 6 bloom taxonomy levels. Category 1/Level 1 examined questions relating to the theme or subject and obvious content dealing with the recognition and identification of context and the communicative functions of semiotic modes on a given text.

Category 1/Level 2 focused on inferred and connected content. In line with the central enquiry, this evaluated the respondents' interpretation and translation of information given in a text; as well as locating, selecting and organizing information from a text.

The third content category evaluated two competency levels respectively, thus, level 3 and 4 which evaluated respondents' justifications on the communicative significances of

identified semiotic items and how semiotic resources were used to reinforce the central meaning of a text.

Category 4 involved the respondents' ability to identify explicit and implicit claims on a text. In line with the enquiry, respondents had to unearth the underlying clues given through semiotic designs and their composite semiotic elements.

The fifth category focused on the analysis of argument with level 4 and 6 dealing with the analysis and evaluation. In the context of the current study, it involved making valued judgment; decision to agree or disagree with a given proposition or claim. The sixth category on audience analysis had two levels – level 4 and 6 which examined the respondents' interpretation of author's belief, ideals, thoughts and assumption held on target audience. The last category which focused on thematic representation had three levels – level 4, 5 and 6 where respondents needed to make valued judgments, identify perspectives and develop new idea with plausible subjectivities.

#### **4.9 DATA ANALYSIS METHOD**

Tavakoli (2012:152) defines data analysis as a process where a researcher reduces accumulated data collected in research to a manageable size. This is often done through summaries, identification of patterns. The central focus at this stage is to sift, sort, discard, and catalogue data accordingly (Sagor, 1992:48).

To reduce the complexity of the process, Koshy (2005) advises researchers to revisit the aim and expectation of the project and to think critically about the research questions, assumption or hypothesis if the study is quantitative in orientation.

Two basic tasks are central during data analysis process: looking for items that come up regularly and the idiosyncratic items that seem particularly noteworthy (Sagor, 1992).

The second stage of data analysis focused on data interrogation. This is where the researcher interrogated data for evidence which may support the themes, assumptions, hypothesis or specific theories (Sagor, 1992). Three concurrent flows of activity as suggested by Miles and Huberman (1994) included: data reduction, data display and conclusion drawing/verification which guided the entire data analysis process.

It is a common practice for qualitative researchers to use multiple evidences to investigate the same phenomena. When evidences from a variety of sources are integrated, the credibility of the study gets increased. Identified as data triangulation, the same approach was adopted in this study.

#### **4.9.1 TRIANGULATION**

Triangulation is defined in Tavakoli (2012:673) as a “procedure which refers to the generation of multiple perspectives on a phenomenon by using a variety of data sources, investigators, theories, or research methods with the purpose of corroborating an overall interpretation. Equated with applying different methodological approaches, Jupp (2006:305) further explains that, triangulation is ideal in cases where there is a need to explore research phenomena from two different perspectives.

Depicted as one of the simple and common form of combining methods, Gorad and Taylor (2004:43) identified the following reasons for data triangulation:

increasing the concurrent, convergent and construct validity of research; the ability to enhance the trustworthiness of an analysis by a fuller, more rounded account; reducing bias; compensating for the weakness of one method through the strength of another.

Burns (1999:163) observed that action researchers often use multiple methods and the perspectives for different reasons – to gain a richer and less subjective picture than they obtain by relying on a single data gathering technique. Reiterating the same view, Cohen and Manion (1994) caution against the use of a single method in a study as it may give a partial view of a complex phenomenon.

The current study explored the affordances of semiotic modes on selected multimodal texts. This is an explorative approach which in this context was underpinned by a multimodal critical discourse analysis proposition.

Also, the study borrowed a model by Serafini (2015:416) who argues that, before readers can make sense of various elements in a text, they must firstly develop their ability to notice and name the visual and verbal elements of what they are reading. Underpinned by a Multimodal Critical Discourse analytical perspective, the model suggests three



perspectives, namely: perceptual analytical perspective; structural analytical perspective and ideological analytical perspective.

The table below as adapted from Serafin (2015:414) explains how the three perspectives are applicable in a multimodal study of this nature.

Theoretical Perspectives		Conceptualisation	Interpretative approach
Perceptual perspective	analytical	Text as a visual object	Noticing and naming visual elements; Creating perceptual inventories; Attending to peritextual elements; Considering basic art elements;
Structural perspective	analytical	Text as a multimodal event	Considering elements of visual grammar Compositional and spatial relations; Intermodal associations
Ideological perspective	analytical	Text as a sociocultural artefact	Considering sites of production Considering sites of reception Critical lens (gender, race and power) Representations and stereotypes

(Serafini, 2012; 2015).

#### 4.10 THEMATIC ANALYSIS

Braun and Clarke, (2006:6) define thematic analysis as a “method for identifying, analysing and reporting patterns (themes) within data.” This method is not limited to the identification of themes and recurring patterns; it is a useful tool to interpret other various aspects of research topic (Boyatzis, 1998). Thematic data analysis can take different patterns depending on researcher’s primary objectives. Motivated by a social constructionist paradigm, the researcher may consider patterns as socially produced without a discursive analysis akin to the interpretative repertoire of discourse analysis (Clarke, 2005). This is contrasted with thematic decomposition analysis which is adopted if the primary aim is to identify patterns (themes, stories) within data, and theorize language as constitutive of meaning and meaning as social (Stenner, 1993; Ussher & Mooney-Somers, 2000).

Researchers may also decide whether to opt for an essentialist/realist method or constructionist method of thematic analysis. Those who consider an essentialist approach, aim to report the experiences, meanings and the reality of participants whilst the constructionist approach is contextualized between essentialism and constructionism (Braun & Clarke, 2006). Informed by the latter approach, Willig, (1999), noted that, while individuals can make meaning of their experiences, the broader social context can also impinge on those meanings, while retaining focus on the material and other limits of reality. In line with this observations, Braun and Clarke (2006:9) conclude that thematic analysis can be adopted as a method which works both to “reflect reality, and to untangle or unravel the surface of reality.”

Thematic data analysis can also be semantic or be guided by latent themes. According to Braun and Clarke, (2006:13) when a semantic approach is used, themes are identified within the explicit or surface meanings of the data and the analyst is not looking for anything beyond what a participant has said or what has been written.

Thematic analysis according to Braun and Clarke (2016) can also go beyond the semantic content of the data, and starts to identify or examine the underlying ideas, assumptions, and conceptualisations - and ideologies - that are theorized as shaping or informing the semantic content of the data

Thematic analysis may not necessarily be confined to one approach –semantic or latent. For the purpose of this study, both latent semantic and latent thematic analyses were adopted. Braun and Calrke (2006) posited that, with thematic analysis, no hard-and-fast rules are prescribed hence different combinations are permissible.

In keeping with MCDA, i.e. the theoretical framework that underpinned the study, the following key activities which are central to the study were conducted: identifying students' interpretative perspectives and their understanding of semiotic resources as used on selected multimodal texts. Relevance theory was used to assess the aptness of responses in consultation with the main theories underpinning the study.

The following are the distinctive features and the associated merits applicable to thematic analysis.

#### **4.10.1 THEMATIC ANALYSIS IS FLEXIBLE**

Braun and Clarke (2006:5) identified the notion of flexibility as one of the basic reasons why thematic data analysis is a widely used qualitative method of data analysis. This implies that, thematic analysis is not confined to any epistemological or theoretical perspective (Maguire & Delahunt, 2017). The notion of flexibility is used to compare and contrast thematic analysis with other methods like thematic" discourse analysis, thematic decomposition analysis, IPA and grounded theory which are theoretically bounded analytical method of analysis.

#### **4.10.2 COMPATIBILITY OF THEMATIC ANALYSIS**

Latent thematic analysis is compatible with discourse analysis framework (Taylor & Ussher, 2001). Although, the notion of compatibility is not a key factor when applying thematic analysis, when data analysis method is compatible with the framework, researcher gets an opportunity to confirm or challenge propositions in keeping with the primary data solicited. Furthermore, Braun and Clarke (2006) consider latent themes to be more constructionist oriented as it this paradigm tends to overlap with thematic discourse analysis.

### **4.10.3 THEMATIC ANALYSIS IS NOT PRESCRIPTIVE**

Thematic data analysis involves searching across a data set to find repeated patterns of meaning (Braun & Clarke, 2006). This procedure is conducted without prescriptive nor the imposition of hard-and-fast rules. Different combinations are permissible hence both semantic and latent thematic analysis were used in this study. Thematic analysis represents documents and the prevalence of themes differently from content analysis. While content analysis may focus on the quantitative measures, conversely, thematic analysis primarily focuses on a richer description of data set with researcher's reflection on the content (Braun & Clarke, 2006).

### **4.10.4 TOP DOWN OR A BOTTOM UP APPROACH OF THEMATIC ANALYSIS**

While bottom up approach is inductive in nature (Frith & Gleeson, 2004), top down is theoretical and deductive (Boyatzis, 1998; Hayes, 1997). Like in grounded theory, inductive approach and identified themes are strongly linked to the data themselves (Patton, 1990). Inductive approach dissociates itself from the researcher's pre-existing coding frame, or the researcher's analytic preconceptions (Braun & Clarke, 2006). However, Braun and Clarke (2006) caution that, it is practically inevitable for researcher to free themselves of their theoretical and epistemological commitments, hence data may not be coded in an epistemological vacuum.

Braun and Clarke (2006) suggested the six inherent features of thematic analysis which researchers must follow step by step. The steps are discussed respectively with emphasis on how they were applied to address study primary objectives.

#### **Step 1: Becoming familiar with the data**

The researcher read through data collected for details and familiarization. Major research questions were revisited.

#### **Step 2: Generating initial codes**

Initial codes generated were documented on a computerised spread worksheet programme for easy reference.

#### **Step 3: Searching for themes,**

Themes and sub-themes were searched, arranged and grouped under each given research question.

#### **Step 4: Reviewing themes**

Themes were reviewed and interpreted in line with research questions and preceding literature review and adopted theoretical framework

#### **Step 5: Defining themes**

Themes are defined and expanded

#### **Step 6: Writing up-up.**

The researcher at this stage used given responses to seek answer to the study's central enquiry.

The last three stages of action research as adapted in Sousa, D (2011) -reporting results, the take of action based on results of data as well as evaluation and reflection call for a collaborative element of action research. In the context of this study, results of a study are to be disseminated in departmental seminars and faculty colloquium where critical reflections are made. The inputs given are often critical and reflective which in return provide a strong base for informed action. In this study, it would be a better conception of multimodality as an example of emergent literacy, developing epistemological depth on multimodality and the identification of appropriate interventions to augment students' interpretative repertoires.

### **4.11 POPULATION**

A distinction is made in Arkava and Lane, (1983) between the universe and the study population. While universe refers to all potential subjects who may possess the attributes in which the researcher is interested, populations in contrast is established by setting boundaries on study units.

The term population can also be expanded in terms of the attributes and its role in a research study. In terms of attributes, de Vos, Strydom, Fouché and Delport (2005:103), define population as individuals in the universe who possess specific characteristics while in terms of the role of a population, Powers, Meenaghan and Toomey, (1985:25), argue that, population contains set of entities representing all measurements of special interest to the practitioner. It is the total set from which the individuals or units of the study is chosen (Seaborg, 1988). McBurney, (2001:248) simply defined population as "the sampling frame."

The population of the study were University of Venda level 300 2019 registered Media Studies students with English as their majors. Students with English 300 but not registered as Media Studies students were purposefully excluded from the study. The selected students met the following homogenous characteristics:

- University of Venda registered students for 2019 academic year;
- Enrolled in the School of Human and Social Sciences;
- Media studies students with English as their major
- Had completed Visual Literacy as an elective in their degree curricula;
- Had also completed ECS (English Communication Skill) 1541, a first semester module for all first entering students and ECS (English Communication Skills) 1641 which is a support module for students in the school of Human and Social Sciences.

#### **4.12 SAMPLING**

Sampling, according to Kerlinger (1986:193), involves “taking any portion of a population as representative of that population or universe.” Sampling is necessary in instances where it would be practically impossible to study all the members of the population (Vanderstoep & Johnston, 2008). There are two basic types of sampling methods, namely, probability and purposive sampling.

Dawson (2009) cautions researchers to examine their ultimate intention of the study – to generalize or to describe a specific theme. If the primary intention is to explain, predict or generalize, probability sampling is permissible. Conversely, if the researcher does not intend to generalize findings but to describe, then purposive sampling is ideal (Dawson, 2009) hence it was adopted for the current study.

Probability sampling also differs from purposive sampling because of data type, method of data presentation and interpretation. Ritchie and Lewis (2003:78) identify probability sampling as the most rigorous approach often adopted for statistical research hence it is reckoned to be largely inappropriate for qualitative research.

For the purpose of this study, purposive sampling was adopted on the basis that:

The sample was not intended to be statistically representative;

It is well suited to small-scale and in-depth studies;

Sample units were chosen because they had features or characteristics as listed under section population parameter section.

Sample units were chosen based on relevance to the subject matter  
Ritchie and Lewis (2003:78)

#### **4.12.1 PURPOSIVE SAMPLING METHOD**

Purposive sampling accommodates different sampling methods which address different aims. For instance, homogenous sample which according to (Holloway & Wheeler, 1996; Patton, 2002; Robson, 2002) is adopted in a context of a homogenous subculture for a detailed investigation of social processes in a specified context. Heterogeneous sample is adopted if there is a deliberate strategy to include phenomena which vary widely from each other (ibid). Suffice to mention, there is also extreme case or deviant sampling, Intensity sampling, typical case sampling, stratified purposive sampling and critical case sampling (Patton, 2002, Robson, 2002). For the purpose of this study, the researcher adopted purposive sampling with convenience as its subtype.

#### **4.12.2 CONVENIENCE SAMPLING METHOD**

Ritchie and Lewis (2003) noted that, there is basically no any clear strategy that characterizes convenience sampling. Instead, they observed that, researchers who choose convenient sampling are often influenced by the advantage of easy access to units of analysis/ research participants. When the emphasis is on the site and the individuals from which the researcher would access and easily collect data, convenient sampling is ideal (Dawson, 2009). Secondly, the insider status of the researcher in the context of study may also help him to obtain or access information which might not be readily available to other researchers outside the context of study hence action research methodology.

Furthermore, THOUGHTCO (n.d) provides further impetus that researchers consider when choosing convenience sampling.

Quick data collection at low to no cost;

The efficiency of convenient sampling which allows the researcher to conduct the

study in the course of his/her everyday life;

Readily available participants and easy recruitment of study participants.

The researcher is a lecturer in the department of English in the school of Human and Social Sciences and could conveniently access module descriptors; easy reference to academic calendars for the school of HSS, as well as continuous interaction with lecturers in the Department of English and the entire school of HSS. Convenient sampling therefore allowed the researcher to liaise with academic colleagues and to interact with the identified respondents for data collection.

#### **4.13 SAMPLE SIZE**

Qualitative samples are usually smaller in size compared to quantitative sample (Ritchie & Lewis, 2003). In a quantitative study, the criterion of representativeness is a major driving factor in determining sample size (Tavakoli, 2012:544). Generally, the rule of thumb is that, when the size of the population is large, it is a standard practice to have a smaller sample percentage and vice versa (Strydom, Fouché, Delpont, 2005). As mentioned before, the current study adopted qualitative research with methodological pluralism hence large sample size was not a requisite factor.

According to Ritchie and Lewis, (2003:83) a smaller sample size is permissible in qualitative research design because:

Incidence or prevalence are not the concern where qualitative research is the dominant design; secondly, if the data are properly analysed, there would come a point where very little new evidence is obtained from each additional unit and thirdly, the type of information that qualitative studies yield is often rich in detail.

The total number of registered level 300 Media Studies students for 2019 academic year were 54. The number of participants for the study were 45, constituting a participation rate of 83.3%. Discarded samples were (09) constituting a 16% percentage of eliminated samples. Reasons for elimination ranged from insufficient answers and inadequate responses; incomplete sections of the questionnaire and test items and illegible content. The study sample size was therefore 36 constituting 66% participation.



In line with Stoker (1985) a sample frame of 66% is considered adequate as numerically illustrated below.

Population	Percentage suggested	Number of respondents
20	100%	20
30	80%	24
50	64%	32
100	45%	45
200	32%	64

Source: Stoker (1985)

#### 4.14 RESEARCH SETTING AND CONTEXT OF THE STUDY

Research setting refers to the place of data collection. Action research being a context-based research method, data collection is conducted by practitioners in their professional place of operation. It is often instituted to investigate an issue of epistemological and pedagogic concern. In line with this practice, the study was carried out at University of Venda, located in the Thulamela Municipality under the Vhembe District in Limpopo, South Africa.

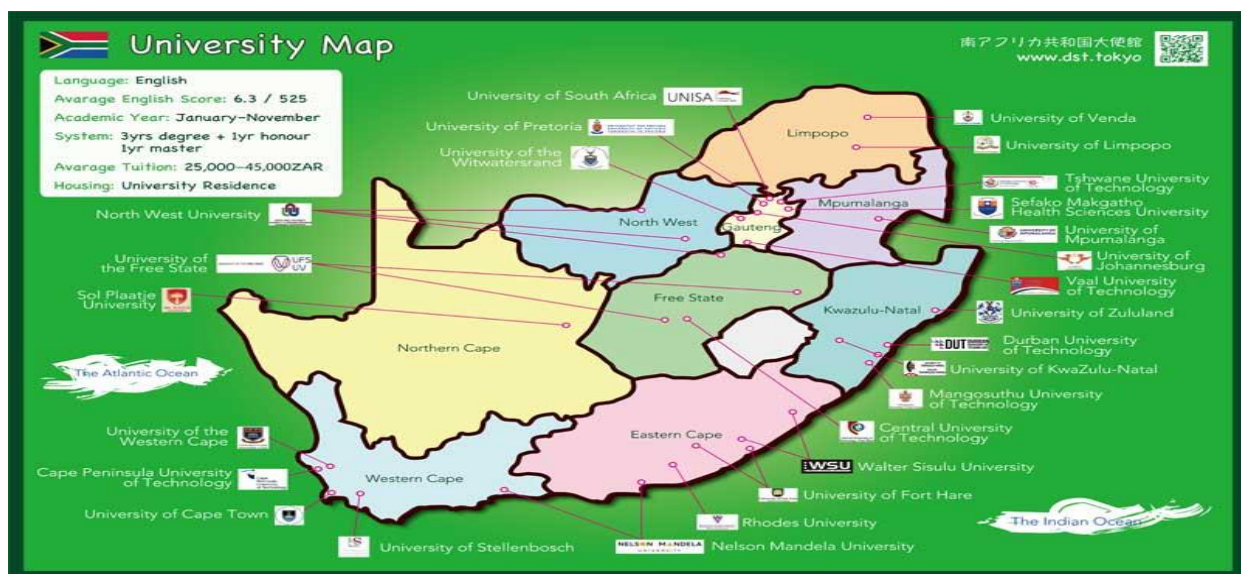


FIGURE 19: MAP OF THOHOYANDOU, THULAMELA MUNICIPALITY

(SOURCE: [HTTPS://WWW.GOOGLE.COM/SEARCH?Q=UNIVERSITY+OF+VENDA+MAP](https://www.google.com/search?q=university+of+venda+map))

University of Venda student population in 2019 was 13 000 comprised of students from diverse language groups namely, Tshivenda, Sesotho, Swati, XiTsonga, Swati, and IsiZulu. The University also accommodates international students mainly from the SADEC region, and West Africa (Nigeria and Ghana). (<http://www.univen.ac.za>).

With this student composition, the university's medium of instruction is English, however, students often use their own distinct ethnic languages for communication outside the university lecture halls. The institution equally has a diverse academic population with distinct cultural orientations and language background. This profile categorises University of Venda as one of the emerging multilingual and multicultural institutions of higher learning in Southern Africa.

#### **4.15 ETHICAL CONSIDERATIONS**

The nature of research study often guides researchers on the anticipated ethical considerations to be observed. Basic considerations that researchers need to explicitly spell out entail how the study's participants should be treated and how data should be handled after collection (Vanderstoep & Johnston, 2008). Strydom (2005:72) reiterates what Gravetter and Forzano consider to be the two basic responsibilities that researchers need to consider: "responsibility to those both human and non-human who participate in a research project and responsibility to the discipline of science, to be accurate and honest in the reporting of their research."

The Belmont report in Vanderstoep and Johnston (2008:12) prepared by the Commission for the Protection of Human Rights equally outlined ethical issues that are critical across disciplines. Informed by these imperatives, the following ethical considerations were observed in this study: respect for persons, avoidance of harm, informed consent, avoidance of deception, maintenance of privacy, anonymity, confidentiality and debriefing of subjects.

#### **4.15.1 RESPECT FOR PERSONS**

Participants must be treated as autonomous agents and participants with diminished autonomy, thus, the minors and participants with disability must be protected thoroughly (Vanderstoep & Johnston, 2008). To ensure that this consideration is properly maintained, participants were briefed on the nature of the study, aim and purpose of the study as well as their role in the study. This informative detail is vital if participants are to voluntarily participate and offer consent based on prior knowledge and awareness of potential implications for their participation.

#### **4.15.2 INFORMED CONSENT**

Strydom (2005) emphasises that, researchers should provide accurate and complete information. This assists subjects to fully comprehend the investigation and consequently enables them to make a thoroughly reasoned decision about their possible voluntary participation (Strydom, 2005). All sampled participants were given accurate and complete information as documented under **Appendix 1B** about the objectives of the study, the method of data collection as well as the role of respondents in the study. Resultantly, all participants agreed to participate in the study voluntarily without being coerced.

#### **4.15.3 AVOIDANCE OF DECEPTION**

Loewenberg and Dolgoff (1988: 70) describe the deception of subjects as “deliberately misrepresenting facts in order to make another person believe what is not true, violating the respect to which every person is entitled”. Judd, Smith, & Kiddler (1991:496–497) offer the following three reasons why subjects may be deceived: to disguise the real goal of the study; hiding the real function of the actions of the subjects and possibly hiding the experiences that subjects may go through. To avoid this unethical practice, the researcher ensured that no facts were misrepresented in the study and no participants’ rights were violated during and after the investigation.

#### **4.15.4 PRIVACY, ANONYMITY AND CONFIDENTIALITY**

In this study the researcher addressed maintenance of privacy, anonymity and confidentiality synonymously. Sieber (1982: 145) defines privacy as “that which normally

is not intended for others to observe or analyse”. Singleton, Jones, and Hanumantha (2012) further explain that “the right to privacy is the individual’s right to decide when, where, to whom, and to what extent his or her attitudes, beliefs, and behaviour will be revealed”. Distinguishing privacy from confidentiality, Strydom (2005) noted that, while privacy normally implies the element of personal privacy, confidentiality often entails the handling of information with supreme confidentiality. Sieber (1982:145) on the other hand views confidentiality as a continuation of privacy, “which refers to agreements between persons that limit others’ access to private information”. Dane (1990: 51) and Babbie (2001: 472) distinguish between anonymity and confidentiality. They maintain that confidentiality implies that only the researcher and possibly a few members of his staff would be aware of the identity of participants, hence research assistants are obliged to make a commitment regarding confidentiality. Robinson (1991:280) views confidential information as “privileged information.” Conversely, according to Babbie (1990:342) and Baker (1988:75) anonymity would imply that that no one, including the researcher, should be able to identify any subject afterwards.

Proper scientific sampling is critical in social science research. For researchers to maintain privacy in social research, Strydom (2005) emphasises that, proper scientific sampling should be used. Proper scientific sampling is significant because, it ensures that participants are not involved based on familiarity or unfamiliarity (Strydom 2005:62). Although the study did not necessitate disclosure by participants of any form of sensitive information, the researcher however, committed to use codes numbered M1 to M45 to identify participants so that the responses given could not be linked directly to the identity of participants.

#### **4.15.5 DEBRIEFING OF SUBJECTS**

Strydom (2005) insists that, research project must always provide a learning experience to participants and researchers alike. Debriefing session is necessary for the researcher to assist subjects in minimising possible harm which may have been done despite all his precautions against such harm (Strydom, 2005). Although the research project posed no potential harm to participants, the researcher commits to provide adequate and requisite clarity if needed on questions that may arise emanating from the study.

## 4.16 CONCLUSION

Chapter Four highlighted research design, methodology and ethical considerations. The adoption of action research and its applicability in the current study was also highlighted. Furthermore, the chapter expanded discursively, target population, sampling procedure, data collection tool and data analysis methods. The chapter concluded with a focused discussion on ethical considerations observed in the study.

## CHAPTER FIVE: PRESENTATION OF FINDINGS

### 5.0 INTRODUCTION

Findings of the study are presented in this chapter. As delimited in the study, the findings are aligned to fundamental themes on multimodal representations and interpretative competencies that readers would need to decode multimodal texts. The major sections of the study are preceded by **Section A** which captures demographic data of participants; followed by **Section B**, presenting findings on respondents' understanding of multimodal genres; affordances of semiotic resources and the basic interpretative skills underpinning Multimodal Literacy perspectives.

Subsequent sections C, D, E and F respectively present findings on respondents' interpretation of spatial semiotic design on a given text; interpretations of visual semiotic design with special focus on colour as an example visual semiotic mode; identification and interpretation of literary devices used on a given multimodal text and the interpretation of typographic features of linguistic semiotic design as used on a given multimodal text.

#### **SECTION C: RESPONDENTS' INTERPRETATION OF SPATIAL SEMIOTIC DESIGN**

This section presents respondents' interpretation of spatial semiotic design. It involved identifying the semiotic significance of space in a given text. It explored different meaning attributed to the positioning of semiotic modes: top versus bottom and/or left versus right dimension.

#### **SECTION D: RESPONDENTS' INTERPRETATION OF VISUAL SEMIOTIC DESIGN**

Semiotic resources on visual semiotic design are varied. In line with design elements of multiliteracy perspective, visual design assesses the interpretation of colours, perspectives, vectors, foregrounding and backgrounding. Readers may also examine cover saturation, texture and the materiality of text and how these reinforce the text designer's central meaning. To make sense of respondents' interpretation of visual semiotic mode on a given text, the study used aesthetic dimension and critical dimension on text analysis as espoused in (Dahlström, 2016).

## **SECTION E: RESPONDENTS' INTERPRETATION OF LITERARY DEVICES IN A GIVEN MULTIMODAL TEXT**

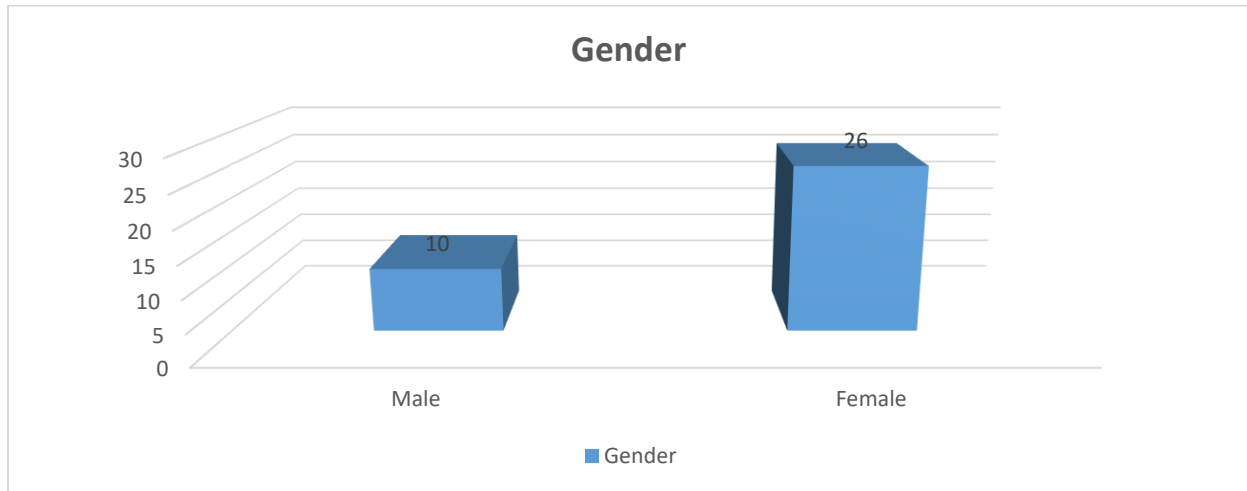
This section required respondents to identify the use of images as visual narratives and the literary devices incorporated in the narrative. It involved exploring visuals as narrative techniques on a given text. Literary devices on verbal-visual interface may include allusions, euphemism, imagery, visual metaphor and personification. When adequately applied, they can enrich and expand textual narrative while at the same time expanding readers' imagination and textual appreciation.

## **SECTION F: RESPONDENTS' INTERPRETATION OF TYPOGRAPHIC FEATURES OF LINGUISTIC SEMIOTIC DESIGN IN A GIVEN MULTIMODAL TEXT**

This section presents respondents' interpretation of typographic features of linguistic semiotic design. In this context, the focus was on respondent's interpretation of capitalisation; font size (big or small); font pattern (bold or plain) and texture and how these typographic features were used to reinforce the central meaning of a given multimodal text.

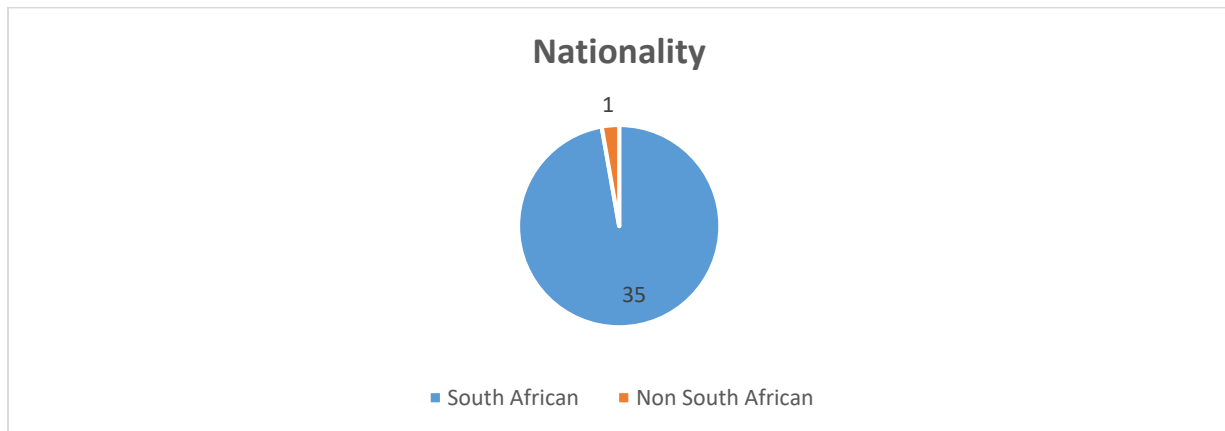
## SECTION A: BIOGRAPHICAL DATA

### 5.1 PARTICIPANTS GENDER RATIO



The sampled participants were 36 constituting 66 % from the total of 54 universal population. Ten (10) of these participants were males making up 27.7 % whilst twenty-six (26) of them were females constituting 72.3 %. Therefore, female participants constituted the greater percentage in the study.

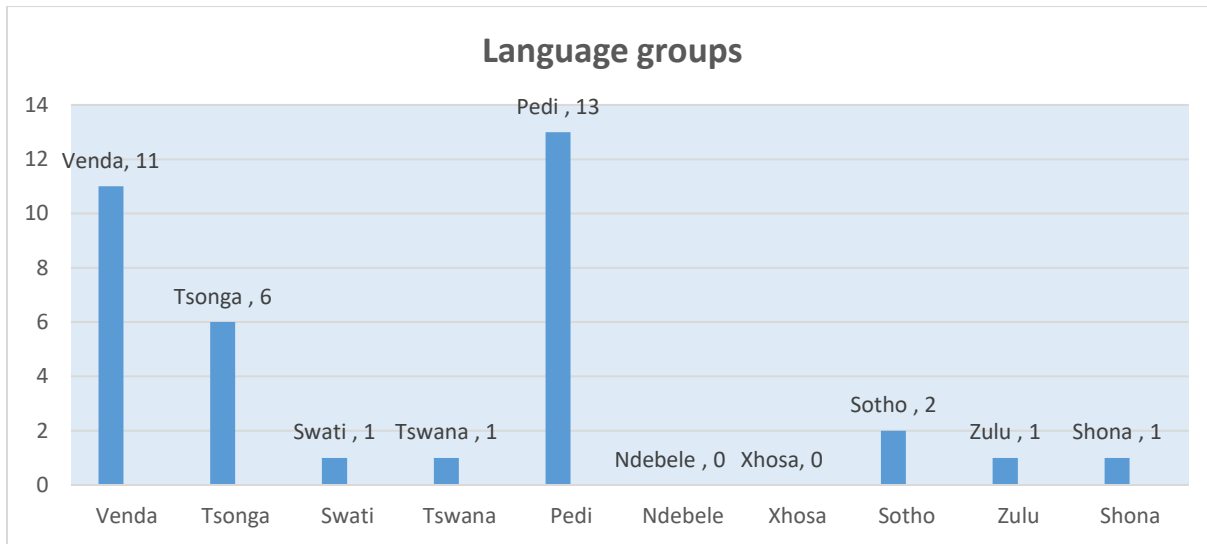
#### 5.1.1 NATIONALITY



35 participants, constituting 97.3% were South Africans from different language groups in South Africa as indicated in graph numbered 5.1.2 overleaf. There was one non-South African respondent constituting 2.7 %.

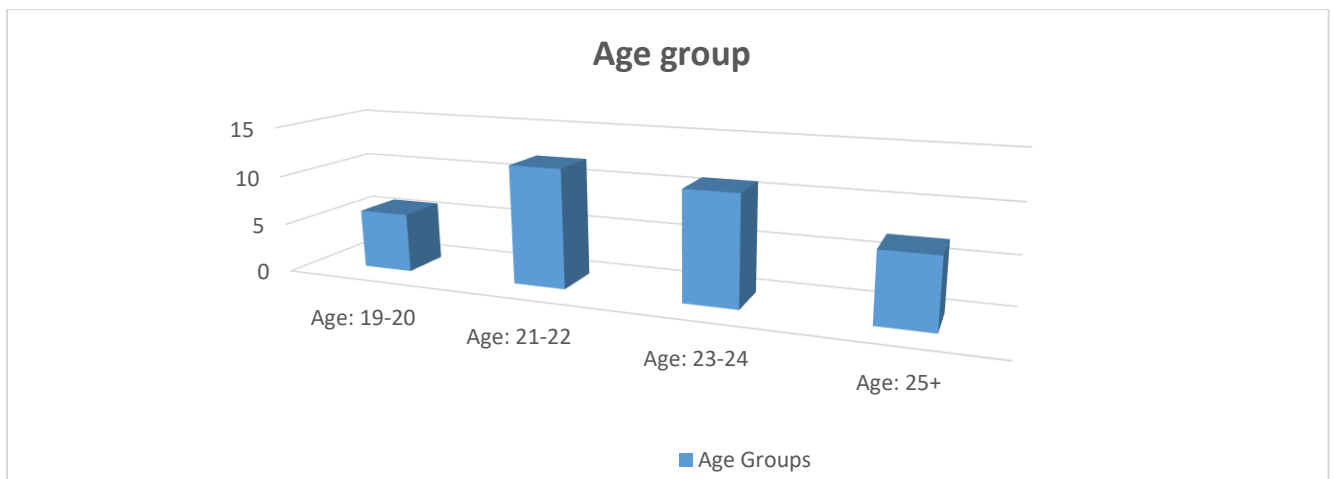


### 5.1.2 LANGUAGE GROUPS



The figure above shows the number of participants per language group. In an ascending order, the highest language group was Pedi with 36%, followed by Venda with 30%. The subsequent third and fourth groups were Tsonga at 16.6% and Sotho at 5.5 % respectively. Four language groups – Sotho, Swati, Shona and Zulu had one participant constituting 2.7 % simultaneously.

### 5.1.3 AVERAGE AGE GROUP OF RESPONDENTS



Respondents' age was categorized into four groups. From lowest to highest, there were 6 participants between the age of 19-20 constituting 16.6 %. The second group aged 21-

22 were 12 constituting 33.3%. The third group aged 23-24 had 11 participants constituting 30.5%. The last group marked 25+ constituted 19.4% had 7 participants.

Different terms are used in the digital era to categorise and describe age groups. For instance, terms like 'digital native generation' and 'techno savvy' are used in Palfrey and Gasser, (2008) and Prensky, (2001) to describe anyone born after 1980, immersed in a world saturated with digital technologies. Since they are immersed in digital space, they are presumed to be inundated with different text types of peculiar semiotic orientations both monomodal and multimodal. In terms of age group and descriptive parameters highlighted herein, the respondents in the current study could be categorized as digital natives. However, their access to multimodal texts and digital technologies could understandably be diverse.

## **SECTION B**

### **5.2 RESPONDENTS' INTERPRETATION OF TEXT TYPE AND THE AFFORDANCES OF SEMIOTIC DESIGNS**

The study evaluated respondents' interpretations of multimodal texts and semiotic designs dominating communicative practices in contemporary communication domain. It included establishing respondents' knowledge on the characteristic features of digital genre conventions; the affordances given to digital texts such as hypertexts, hypermedia and hyperlinks which are archetypal embedded components of screen based multimodal texts. The section also covered respondents' understanding of semiotic designs which are used as meaning-making modes on different multimodal texts. Semiotic designs explored are linguistic, visual, spatial and gestural. The affordances attributed to acoustic semiotic design are not included in the current inquiry as explained under the delimitation section.

### 5.2.1 A SUMMARY OF SCORE PERCENTAGE AND THE NUMBER RESPONDENTS PER SCORE LEVEL

No of respondents	6	2	14	6	5	3	Total 36
Score level and %	2=25%	3=37.5	4=50%	5=62.5	6=75. %	7=87.5	Total 27
Number of respondents and score %	17	6	38	16.6	13.8	8	100

Six (6) respondents interpreted two (2) of the questions correctly reflecting a 25% correct interpretation; (2) respondents scored level three (3) reflecting 37.5%; fourteen (14) respondents scored level four (4) reflecting 50%; six (6) respondents scored level five (5) reflecting 62.5 %; five (5) respondents scored level six (6) reflecting 75% correct interpretation. There were only three (3) participants who scored level seven (7) reflecting 87.5% correct interpretations. No scores were recorded for score 0 and 8. Questions assessed respondents' awareness on digital literacy terms, digital genre conventions and the affordances of semiotic designs.

### 5.2.2 RESPONDENTS' SCORES PER AGE GROUP

Score Levels	Number of respondents per age group				Total
	19-20	21-22	23-24	25+	
1	-	-	-	-	0
2	1	4	-	1	6
3	-	-	1	1	2
4	2	6	3	3	14
5	2	2	2	-	6
6	1	2	1	1	5
7	-	2	-	1	3
8	-	-	-	-	0
	6	16	6	7	
Total score per age group	16.6%	44.4%	16.6	19.4%	36

Age group 19-20 had a total of 6 scores constituting 16.6%; age group 21-22 had a total of 16 scores constituting 44.4%. Age group 23-24 with 6 scores constituted 16.6%. The last age group marked 25+ had a total of 7 scores constituting 19.4%. Age group 21-22 had the highest score; followed by age group 25+ with 19.4. Age group 21-22 and group 23-24 had a similar percentage with 16.6% each.

### 5.2.3 RESPONDENTS' SCORES PER QUESTION

QUESTION NUMBER	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
	SSD							
CORRECT SCORES	32	20	22	23	23	2	21	28
%	88%	55.5%	61.1%	63.8%	63.8%	5.5%	58.3%	77.7%
INCORRECT SCORES	04	16	14	13	13	34	15	08
%	12%	44.4%	38.8%	36.1%	36.1%	94.4%	41.6%	22.2%

The lowest score as highlighted above was under question 6 which assessed respondents' interpretations of spatial semiotic design and its affordances. To decode and comprehend the affordance given to spatial semiotic design, VICTORIA STATE GOVERNMENT: EDUCATION AND TRAINING suggests that readers/viewers may focus on how components in a text have been arranged, integrated and how they interacted; they may also focus on text layout, proximity between modes and general layout and placement of modes in a text. The highest score was recorded under question one (1) where appropriate responses constituted 88%. Question one (1) required respondents to identify a point that describes the materiality, affordances and the characteristic features of digital texts.

Digital text is described as a screen-based production where meaning is communicated through the linguistic and visual representation (Kress, 2003; Lankshear & Knobel, 2006; Domingo, 2014). Based on its flexibility, digital text is searchable, rearrangeable, condensable, annotatable and can even be read aloud by a computer (<http://shardin.weebly.com/>). Understanding the affordances of digital texts is one of the key features of emergent new literacies. With its capacity to integrate discrete signs and

modes, the potential textual shift hinted in (Jewitt, 2005; Kress, 2010 & Dahlström, 2016) continues to manifest with new requisite reading and writing skills for contemporary readers and students alike.

Respondents also demonstrated 77.7 % appropriate identification of the basic affordances of linguistic semiotic design. As a dominant meaning-making mode which underpins traditional literacy perspectives, linguistic semiotic design, among other entails elements like vocabulary and metaphor; modality, nominalization of processes; information structure and text global coherence (Rush, 2003). The appropriateness of responses on the affordances of linguistics design could be indicative of its dominance in academic domain and respondents' sustained exposure compared to other types of designs.

23 respondents with 63.8% interpreted questions four and five correctly. Question four (4) focused on general interpretation of a multimodal text while question five (5) focused on the affordances given to gestural semiotic design. Gestural semiotic design as summarized in Multi-Literacy Framework include body physicality and gestures and how these acts are integrated to construct a cohesive multimodal text. Semiotic value of gestural design often covers semantic reiteration and/or semantic enhancement (Exley & Cottrell, 2012) and/or semantic complementarity (Royce, 1998). When the gesture does not add value to the general semantic cohesion of a text, it produces a semantically displaced mode marking an incongruent use.

Finally, 21 respondents with 58.3% interpreted question 7 correctly while 20 respondents with 50.5% interpreted question 2 correctly. Question 7 focused on the affordances given to visual semiotic design which among others explores the affordances of colours, perspectives, foregrounding and backgrounding (Rush, 2003); question 2 on the other hand, focused on hypertext, which include among other features: extensive cross referencing on related sections of the text and integration of associated graphic text material. Although it is not necessarily the prime focus of the enquiry, it would be noteworthy to establish whether there would be a causal link between general knowledge on the affordances of semiotic designs, text types and respondents' actual competence in decoding semiotic modes as explored in subsequent sections of the study.

## SECTION C

### 5.3 RESPONDENTS' INTERPRETATION OF SPATIAL SEMIOTIC DESIGN (SECTION C APPENDIX 1A)

In section C, appendix 1A, the text designer used spatial semiotics as a narrative technique to capture the hazardous effects of industrialization to the environment. The placement of factories' images on the left side of the text, enhances and reiterates the message of negative affect associated with environmental degradation. Images of trees representing the ideal green environment are positioned on the right side of the text to affirm the positive affect as placed on the right as an ideal pursuit. A similar representation technique was used in figure five, page 31 where the text designer placed an image with negative affect on the left while an image associated with positive affect is placed on the right side of the text.

Spatial semiotics accords inferential meaning based on proximity, position and layout of a text. In this context, the left position in section C, appendix 1A, connoted negative affect while right positioning connoted positive affect. Secondly, industries on the left have covered a relatively longer space compared to the space covered by the trees on the right. The phrase: "**LOADING PLEASE WAIT ...**" is edging to the right side of the text reinforcing the idea that industries are slowly depleting the environment hence the right side is shortened.

The question on spatial semiotics was formulated to establish respondents' inferential interpretations of spatial positioning and its significance in the context of the text. Respondents gave different responses on the question:

**Question: Could there be any reason/s why images on the text were placed on different spatial positions: factories on the left and trees on the right side of the text?**

Responses are presented in thematic forms with percentages marking the frequency of themes. This is followed by respondents' verbatim narratives aligned to the themes that were identified.

### 5.3.1 THEMES AND FREQUENCIES ON RESPONDENTS' INTERPRETATION OF SPATIAL DESIGN AS USED IN TEXT D (APPENDIX 1A)

RESPONDENTS	THEMES	%
M1; M2; M16; M20; M42	Clarity and easy viewing	14%
M12; M13; M18; M20; M22	Attracting attention and making impression	14%
M2; M7; M20; M40	Linear reading, writing sequence; loading direction	11%
M6; M10; M12	It is an ongoing process; Not yet complete	8.3%
M1; M14	For visibility	6%
M12	It is a process of replacement	3%
M46	Barriers on network connectivity	3%
M15	Satisfying needs of readers	3%

Respondents raised different subjective views on spatial design and its semiotic significance as used in section C appendix 1A. Respondents **M12, M13, M18, M20 and M22** raised similar views indicating that the text designer positioned visual variables as semiotic modes on different sides to capture readers/viewers' attention.

#### RESPONDENTS

- M12** *Text has been made clear, bold text taking or luring the attention and the text below gives view that the process is continuing*
- M13** *Texts are put to grab the attention of the targeted audience.*
- M18** *The term loading is written in big letters which instantly draws the eyes to you or first glance so that one needs to pay attention.*
- M20** *The spatiality and positioning of the text are placed there in the middle to attract the eyes of the reader, as we can see that the fonts are different.*
- M22** *The text show and grabs the attention of the reader by showing green and black picture which mean different aspect.*

Respondents **M1 and M16** had a different view. Their main argument is that the primary semiotic significance of spatial placement in section C, Appendix 1A was to ensure that the text and its content are clear and visible to the reader.

#### **RESPONDENTS NARRATIVE RESPONSES**

**M1** *Position of a text is in correct manner and everything can be seen clear enough.*

**M16** *The text is clear because it is drawn like when something is still loading on the internet.*

Respondents **M7, M20 and M39** introduced the theme of sequencing and reading directional flow. Their argument is that, spatiality and text positioning is in keeping with linear direction that is followed in traditional literacy practice when viewing, reading or decoding a text. Respondent 39 also argued that it is because of the observation that, loading signal on a computer will always move from left to right.

#### **RESPONDENTS NARRATIVE RESPONSES**

**M7** *We read from left to right, so factories are positioned on the left because they are going after trees/cutting down trees hence these trees are placed/positioned on the right.*

**M20** *Yes, the reason would be that they want to make it clear to us, as we know that every time we read a text we start from the left going to the right, so this makes the image clear to us that the bar is loading, and it is loading towards the houses*

**M39** *Yes. On a computer, when something is loading, it starts and the left to the right hence the trees are placed at the right to show that the buildings and factories are still cover the right*

Conversely, respondents M6, M10, M12 argued that, spatiality and positioning in text D was simply a reflection of an ongoing process and an indication that something was impending and yet to be completed.



**RESPONDENTS NARRATIVE RESPONSES**

**M6** *It's to show that this is an ongoing process and how much of nature it has been damaged.*

**M10** *Where the text is situated or positioned reflect that it is still in a process or it is not yet complete.*

**M12** *So, the reason why trees are on the right is that there is a process of replacement or deforestation in order to remove or replace trees with buildings are becoming more than the plants and that the plants are not being cared for.*

There were also responses which were strikingly incongruent to the context of the text. For instance, respondent M13 indicated that the text is strategically placed to leave an impression. Respondents M12, M15 respectively argued that, the text shows the process of replacement, differences in perceptions and preferences. With a strikingly incongruent interpretation, M46 argued that the text depicted “network and connectivity barrier.”

**RESPONDENTS NARRATIVE RESPONSES**

**M13** *The author's main goal is to attract certain individuals, so everything has been strategically put in place in order to leave an impression on these individuals.*

**M12** *So, the reason why trees are on the right is that there is a process of replacement or deforestation in order to remove or replace trees with buildings are becoming more than the plants and that the plants are not being cared for.*

**M15** *People do not perceive things (life) the same way- some see opportunities, and some don't see in life.*

**M46**

*The text shows 2 places in rural and at urban area. At urban there is no network; to show that network is different or connect in a different way based on the place and barriers.*

The section identified respondents' interpretation of spatial semiotic design applicable to a given multimodal text. Respondents did not comment on the negative affect often associated with left positioning and the positive affect often ascribed to right positioning in each context. Responses were mainly on the aesthetic dimension of the text which puts much emphasis on clarity, visibility and attention grabbing. Respondents were therefore less critical in their analysis with incongruent implicatures.

The next section introduces respondents' interpretations of colour as one of the examples of semiotic elements under the visual semiotic design.

## SECTION D

### 5.4 RESPONDENTS INTERPRETATION OF VISUAL SEMIOTIC DESIGN

The text designer in section D, Appendix 1A, used two dominant colours, (black and green) as semiotic resources. The loading bar on the left is painted black while the bar on the right is painted green. Factories which are a visual prototypical referent of industrialization and associated with intense pollution are in black while trees as visual prototypical referent of nature are painted green. Respondents ascribed different meanings to the use of black and green colours in the context of the text.

Responses are presented in tabular form with themes and frequencies. This is followed by respondents' narratives that complement the themes identified.

#### 5.4.1 RESPONDENTS THEMES AND FREQUENCIES

RESPONDENTS	Semiotic significance of black colour	%
M14, M26, M30; M39	Black symbolic of darkness	11.11%
M13, M15; M20	Bad luck and evil	8.3%
M22; M33	Danger	6%
M18	Death and killings	2.7%
M29; M32	Vandalism and destruction	6%
M12; M16; M24	Visualization and aesthetics	8.3%
M7	Discipline specific reference	2.7%
M8	Terminal state	2.7%
M10	Risky behaviour	2.7%
M21	Over population	2.7%
RESPONDENTS	Semiotic significance of green colour	%
M2; M18; M20; M22; M30; M42	Green complementing nature	17%

M26; M27.	Beauty of nature	6%
M18; M20	Green symbolic of life	6%
M15	Joy	2.7%
M33	Good air	2.7%
M46	Health and delay	2.7%

#### 5.4.2 INTERPRETATION OF BLACK COLOUR IN THE CONTEXT OF TEXT D

Four respondents (**M14, M26, M30 and M39**) constituting 11.11% associated black colour in section D, Appendix 1A with darkness. In addition to the theme of darkness, respondent M39 introduced the idea of evil associating it with black colour in the context of the text.

#### RESPONDENTS NARRATIVE RESPONSES/THEMES

**M14** *The black colour is showing us how far the loading is going. Black means darkness.*

**M26** *Black show that the darkness is coming when there will be no tree the system*

**M26** *Black suggests darkness and city buildings.*

**M39** *Hence black which represents darkness and evil is prevailing*

Respondents M13, M15 and M20 expressed similar views and associated black colour with bad events, bad luck and evil respectively. Reiterating similar arguments, respondents M22 and M33 associated black colour in the text with danger while respondent M18 associated black colour with death and killings. The verbatim narrative responses are highlighted overleaf.

## **RESPONDENTS' NARRATIVE RESPONSES/THEMES**

- M13** *The use of black signifies that the situation is bad, and something must be done*
- M15** *Black represents bad luck*
- M20** *The colour black can symbolise bad or evil*
- M22** *The colour black show danger into our world*
- M33** *Whilst black is a colour that shows danger meaning as much as the capital world takes over the more dangerous it gets for our nature*
- M18** *while else black as season in the factories represent death, the killing of nature*

Respondents M29 and M32 introduced three separate themes associating black colour with the loss of greenery, an act of vandalism and the destruction of nature respectively.

### **Respondents NARRATIVE RESPONSES**

- M29** *The author made use of the colour black to represent a world that is losing its greenness. This shows that what people care about the most is their house and the expansions of the cities without realizing that world is its colour*
- M32** *Green part is going to be vandalized and there will be new ground*

Different views were raised by respondents (M7, M8, M10, M12, M16, M21 and M24) respectively. For instance, M7 interpreted the surface meaning denotatively and associated black colour with information that has already loaded as often the case with digital texts. With a different view, M8 argued that the colour is indicative of a terminal state while M10 associated black colour with a risky behaviour. Like M7 who interpreted the colour literally, M12 associated black colour with buildings and factories with no justification.

M16 introduced the element of visualization and aesthetics representation; they expressed that the colours were simply used for better visualization. Respondent M21 associated black colour with over-population; lack of oxygen supply and pollution that would ultimately overcome or destroy the place respectively. M24 presented an incongruent response, associating black colour with *visibility of the other trees for war*.

### Respondents

- M7** *Black represent is a portion that has already loaded*
- M8** *The black colour indicates the terminal state of things or how black things are*
- M10** *In the first side of the picture the colour black is used which shows/reflect that the environment is at risk*
- M12** *Colours are only two where black is indication of building, factories etc. as the continuing part of the process*
- M16** *The picture consists of two colours which is black and green. The factories are black while the trees are green. A person is able to visualize what is drawn on the picture because of the colours*
- M21** *The green colour is changing to black; this might be because of overpopulation and less oxygen to supply the people; pollution would overcome the place*
- M24** *black for visibility of the other trees for war*

The colour used in contrast to black in section D Appendix 1A was green and respondents' interpretations are presented below:

#### 5.4.3 RESPONDENTS INTERPRETATION OF GREEN COLOUR IN THE CONTEXT OF TEXT D APPENDIX 1A

The majority of respondents associated the visual prototypical reference of green colour to nature with different inferential justifications. For instance, respondents **M2**, **M18**, **M20**, **M22**, **M30** and **M42** associated green colour as used in the text with nature. The idea of green as symbolic of the beauty of nature was also expressed by respondents **M26** and **M27**. Respondents **M18** and **M20** also associated the colour green with life respectively.

## RESPONDENTS NARRATIVE RESPONSES

M2	<i>Text D: Complement nature, for example plants</i>
M18	<i>The use of colours green represents life and nature</i>
M20	<i>The designer used the green colour to symbolise nature and trees and life</i>
M22	<i>And the colour green shows healthy world and nature</i>
M26	<i>No comment</i>
M27	<i>No comment</i>
M30	<i>The designer used green colour to show that our nature is slowly being replaced by city or buildings which only brings darkness</i>
M42	<i>Green makes one thinks of nature</i>

Other distinct themes of parallel significance were raised by respondents **M15**, **M33** and **M46**. With no relevance in the context of a text, they argued that, green colour in the text was depictive of *Joy, good air, health and delay*.

### Respondents Narrative responses

M15	<i>green is a sign of joy</i>
M33	<i>green is associated with <b>good air</b> and also healthy environment whilst black is a colour that shows danger meaning as much as the capital world takes over the more dangerous it gets for our nature.</i>
M46	<i>The green colour just show thing in the nature can delay the text</i>

Section D presented findings on the use of colours (black and green) as semiotic elements under visual semiotic design in multiliteracy assessment. The affordances of colours were analysed in the context of text D in section D appendix 1A which narrated the hazardous effects of industries and industrialization on nature in a multimodal form. The next section presents respondents' identification and interpretation of literary devices in a given multimodal text.

## SECTION E

### 5.5 RESPONDENTS' INTERPRETATION OF LITERARY DEVICES IN SELECTED MULTIMODAL TEXTS.

Literary devices are used widely as narrative techniques in graphic novels and comics for their capacity to add texture, energy and excitement (Dallacqua, 2012). Their capacity to evoke readers' imagination makes them one of the ideal narrative techniques in multimodal representation. They are also adopted in visual rhetoric and advertising for their persuasive effect (Nilsen, 1980); they are considered a basic feature of multimodal representation (Kress, 2003). Literary devices are also aligned with the concept of synaesthesia – a process of representation characterized by the inter-shifting of modes to provide access to content per reader's cognitive and sensory differentiation (Cope & Kalantzis, 2009)

A similar technique was used in text C, **appendix 1A** where visual personification was used, comparing womanhood with nature. The affordances of digital technology enable the text designer to use visual editing modification. Likewise, the trunk of the tree is designed creatively to depict a state of pregnancy. It is designed to bring an analogy of womanhood, fragility and vulnerability. Comparing nature to a pregnant woman evokes a sense of empathy and care on the part of readers. It is the designer's attempt to discourage human activities that have adverse effects on nature which is considered to be as vulnerable as womanhood in the depicted state.

Responses are presented in themes with percentages marking their frequencies. This is followed by respondents' narratives that support each of the identified literary devices.

#### 5.5.1 RESPONDENTS' INTERPRETATION OF LITERARY DEVICES

Respondents	Identified Literary device	%
M7, M8, M12, M13, M30	Personification	13.8%
M24	Metaphor	5.5%
M17, M39	Symbolism	5.5%
M39	Imagery	2.7%
M39	Allegory	2.7%



A total of 32.9% respondents listed different types of literary devices used in **text C appendix 1 A** as narrative technique. 13.8%, respondents M7, M8, M12, M13, and M30 identified personification as the dominant literary device used in the text. Different apt justifications were provided for the identification.

**Respondents Narratives responses**

- M7 *nature is personified to be a mother hence the use of personal pronoun “her”*
- M8 *Mother Nature is depicted as a feminine being. The repeated use of the “words care and love.” We shift our view when nature is personified and given a feminine touch; we know females are vulnerable and need protection. The above makes conscious of what we must do*
- M12 *Personification has been used as a literary device where a tree is seen to be pregnant with hands of a female person and it reinforces the text central in a proper manner as we can see what the message is saying as the main term “Mother Nature” that has a correspondence with the personification of a tree being pregnant woman*
- M13 *Personification, nature is portrayed as loving mother to be protected and loved; and the colour green is associated with positive thoughts*
- M30 *Personification of nature as our mother to show that somehow, we survive because of it. Personification of nature as a pregnant woman to show that we should care, love and respect it.*

Although different justifications were given, majority of respondents identified personification as the dominant literary device used in text C. While M7 referred to the pronoun her for motherhood, M8 argued that mother was depicted in line with feminine attributes and a general perspective shared about woman as vulnerable in need of protection. M12 specified hands of a woman embracing the edited image of the stem of the tree which resembled a pregnant woman. M13 noted that nature was portrayed as a loving mother arguing green colours connoted positive thoughts in the text. M30

commented on the acts that humanity should do and that is: *caring, loving and respecting* nature urging readers to protect nature as they would protect a pregnant woman.

### **Respondents Narrative responses**

M24                    *Metaphor. It is reinforced through how the trees grow under sun*

M45                    *Metaphor. Nature needs the care as mothers do*

Respondent M24 identified metaphor as the dominant literary device in text C annexure 1A. Feinstein (1982) on *meaning and visual metaphor*, acknowledged metaphor as a powerful literary device for its capacity to aid readers/viewers to further their understanding of the meaning and experience. Visual metaphor urges readers to look beyond literal meaning and start generating associations while at the same time tapping new, different or deeper levels of meaning (Feinstein, 1982). This is manifested in respondents' interpretations who expanded text designer's intention in the use of the identified literary device.

Conversely, Instead of being accusatory, respondent 45 depicted nature as caring hence compared to a mother who is often generally associated with innate affectionate credentials. M24 on the other hand, identified metaphor as a dominant device with an incongruent justification that: *trees grow under the sun*.

Respondent M17 identified symbolism as the dominant literary device in text C. Symbolism allows text designers to express the intangible by using sensuous representation. Magwaza (2001) noted how meaning is ascribed through symbolism where Zulu women are depicted using different artefacts and dress codes to represent their protests and dissatisfaction against issues they considered inherently cultural, patriarchal and oppressive practices. Readers would therefore need to firstly determine the context of the text in order to correctly interpret literary devices in each multimodal text.

Although respondent M17 identified symbolism as the dominant literary device in text C, the justification given was incongruent to the context of the text.

**Respondents    Narrative responses**

**M17**                    *The usual way of disseminating information has been used as a symbolism to the nature or imaginary of the text.*

**M39**                    *symbolism, allegory and imagery*

With no justification Respondent 39 simply identified symbolism, allegory and imagery as literary devices used in text C.

Based on respondents' inferences and justifications for the identified literary devices, it is arguably correct to conclude that the text designer succeeded in generating varied responses (evoking empathy for nature) through visual-verbal interplay and the integration of literary devices.

## SECTION F

### 5.6 INTERPRETATION OF TYPOGRAPHIC FEATURES IN MULTIMODAL TEXTS

According to Rush, (2003) elements of linguistic meaning used in multimodal assessment include delivery, vocabulary and metaphor, modality, transitivity, nominalisation, information structure, local coherence and global coherence relations. Words as linguistic items in a multimodal text can be presented with modified capitalisation, enhanced or modified peculiar font sizes with distinct pattern in bold or plain pattern. Further examples of typographical features as listed in Serafini and Clausen (2012) include the size of linguistic text, its weight, colour, font and design. When these features are used with a social semiotic analytical perspective, they contribute to the whole meaning of a text.

#### 5.6.1 TABLE SUMMARISING RESPONDENTS' INTERPRETATIONS OF TYPOGRAPHIC FEATURES ON MULTIMODAL TEXTS IN (ANNEXURE 1A), SECTIONS D AND E

RESPONDENTS	Interpretation of typographic features on text D and E annexure 1A	%
M2, M12, M14, M20, M24, M38, M42, M41	Attract attention and continuation	19.4
M3, M6, M7, M10, M17 M23, M27, M37, M38, M40	Emphasis, reinforcement seriousness of the matter	25
M7, M16, M26, M43, M44	Clarity and attention	14
M8, M10, M18, M20, M26, M28 M33	Landscape and nature	19.4
M13	Bad thing	2.8
M15, M22, M32, M36, M45, M13, M1	Incongruent	19.4
<b>Total</b>		100

Respondents attributed typographic features of linguistic design in text D and E annexure 1A to six different themes as summarised above. 25% of respondents linked the typographic features to text designer's attempt to make emphasis, reinforce argument and mark the seriousness of the subject matter presented. This is marked by respondents M3, M6, M7, M10, M17 M23, M27, M37, M38, M40 who respectively expressed similar views as captured below:

- M3** *Capitalization is used to reinforce the text's central message so that everyone understand that the text is still loading and that they should patiently wait.*
- M6** *To show us how serious the situation or whatever is happening is*
- M7** *Capitalization is used to emphasise and/or give warning. Typography used for visual. If you struggle to read, you can still get the message. Font size is used to emphasise, and the type used is the one an ordinary person is familiar WITH WHICH makes the design easy to read.*
- M10** *The word **ME** is written in capital letters, big font size and also in bold to show that it is important in the text*
- M23** *Capitalisation was meant to emphasise or to warn you. The most important words are written in small letters. The message is not clear to see.*
- M27** *Typographic features have reinforced the central message through how development is disadvantaging the environment*

Respondents **M2, M12, M14, M20, M24, M38, 41, M42** as captured below, associated typographic features of a text with aesthetic dimension of textual analysis. Aesthetic dimensional features of a text focus on aspects such as general improvement on layout of the text, design feature for clarity and attention.

- M2** *Text E attract the reader*
- M12** *The topography is made clear in such way that it can be seen that there is a continuation of what the message is all about and that all these things are matching. The capitalization indeed take attention to the reader*
- M14** *ME is written in big letters to attract the readers*
- M20** *Capitalization – the use of capital letters is to catch our attention faster and for the words to be visible*
- Font size – a large font type was used for the main idea to be seen while the other words were used in small letters*

- M38** *To attract the audience's attention to want to look; To grab attention of the viewers*
- M41** *Font size is well because it is very visible and attractive. Font type is perfect since it is bold*
- M42** *By the use of colour and boldness it attracts attention*
- With a similar perspective, M7, M16, M26, M43, M44, argued that, topographic features are meant for to ensure clarity of content in the text.
- M7** *Font size is used to emphasise, and the type used is the one an ordinary person is familiar WITH WHICH makes the design easy to read*
- M16** *Topography was used wisely because a person able to see what is drawn on the picture when it comes to capitalization*
- M26** *Font size is written in bold so that everyone could see the message*
- M43** *Great image, visible font that's big but a little too small at the tips Visible, genuine symbols, and visual and images that are satisfying to one's eyes*
- M44** *They were used in a very strategic way, because you easily read/see whatever is written from a distance*

Respondents **M8, M10, M18, M26, M28 M33** associated the typographic features of a text with nature and landscape. This perspective is incongruent and misinterpreted in line with the context of the text.

- M8** *The picture shows the greater threat posed to natural topography by the increase in capitalization. It can also pose the imminent threat of one by the other or possible co-existence of the two subjects.*
- M10** *The topography in the text shows the different in weather condition in both sides. The capitalization of words highlights that there is possibility of a change in the picture of text*
- M18** *Topography is represented by nature which are the green trees and capitalization is represented by what seems to be high-rise building or factories*
- M26** *Topography is used in a way that one could see what had happen in terms of deforestation taking place on the topography*
- M28** *Capitalization for emphasis and topography for trees*
- M33** *Topography is being shown as something that is getting depleted and the capitalization is getting in charge because the loading is showing the capitalized world taking over bushes and trees*

Incongruent interpretative perspectives were also noted in **M15, M22, M36, M45, M13**. The narratives highlighted below capture their interpretative perspective which is

contrary to the communicative intention and the context of the text.

- M15 *Topography means to continue loading even if whatever you are loading is enough and capitalization means to find a fact that you can use fight back in your argument*
- M22 *Topography ensures that our nature is green and healthy. Capitalization show how money works in the world*
- M36 *The building of cities and town will essentially lead to the removal of trees/nature. The more the buildings grow the more the trees will end*
- M45 *By simply stating the obvious. The increase of technology, growing population and capitalists are the major killers of nature*

Finally, respondent M13 linked the use of typographic features in text D and E in annexure 1A as depicting bad things. The respondent associated the use of black colour to a depictive quality of bad things.

- M13 *The author used colours to show that urbanization is destroying nature and the use of black to show that this is bad, as we know that **black represents bad things***

## 5.7 CONCLUSION

The chapter presented a summary on respondents' demographic profile and their general overview on semiotic designs, materiality of semiotic modes and their affordances. The chapter also presented findings on respondents' interpretative perspectives on visual semiotic design, spatial semiotic design, literary devices as narrative techniques and typographic features of linguistic semiotic design used on a given multimodal text. The next chapter discusses and analyses the findings respectively.

## CHAPTER SIX: INTERPRETATION AND ANALYSIS OF FINDINGS

### 6.0 INTRODUCTION

This chapter interprets and discusses findings on the study's central enquiries: respondents' interpretations of visual semiotic design; respondents' interpretation of spatial semiotic design; respondents' identification and interpretation of literary devices and the effect of visual narrative. The chapter also interprets respondents' perspectives on selected typographic features of linguistic semiotic design and their communicative significance in the context of a given text. The aptness of respondents' perspectives is evaluated with reference to relevance theory which is used in this study to examine the plausibility of inferences made by respondents in the context of a given text. Findings are corroborated with epistemological findings on multimodal affordances and the reading of signs as a social semiotic resource.

The chapter interprets and discusses findings on the following major objectives respectively:

- Respondents' general understanding of genre convention, semiotic designs and the materiality of semiotic modes as signifiers of conventional meaning;
- Respondents' interpretation of colours as an example of semiotic resource under visual semiotic design;
- Respondents' interpretation of spatial semiotics and the interpretative inferential given to spatial dimensional meaning;
- Respondents' interpretation of literary devices and their narrative effect on a given multimodal text;
- Respondents' interpretation of typographic features of linguistic design and their semantic significances on a given multimodal text.



## 6.1 DISCUSSION ON RESPONDENTS' UNDERSTANDING OF GENRE CONVENTION, SEMIOTIC DESIGNS AND THE MATERIALITY OF SEMIOTIC MODES AS SIGNIFIERS OF CONVENTIONAL MEANING

In this section, concepts which constitute key composite features of multimodal texts are presented. Respondents were asked to identify descriptions which suitably described the text type and the affordances that inherently characterised a given semiotic design. Semiotic designs explored in line with the study on multimodal representation include spatial semiotic design, visual, gestural and linguistic semiotic design. Respondents matched different explanations with their corresponding reference which in this context was the type of a multimodal text, the affordances of a given semiotic design and semiotic resource.

### 6.1.1 Respondents' interpretations of texts and affordances of semiotic designs

The findings established that 16.6 % of the respondents succeeded in interpreting 25% of the text types and semiotic designs while 5.5% of the respondents interpreted 37.5% of the questions correctly on text types and semiotic designs. In total, 22.1 % respondents scored less than 50% on the given questions that related to multimodality, understanding of text types and the affordances given to various semiotic designs. This suggests that 50% of questions on texts types and semiotic designs were incorrectly interpreted.

The contemporary communication domain is characterized by multiple texts types with peculiar semiotic designs. Presented with different affordances and key semiotic functionalities include hypertexts, hypermedia, digital texts, and graphic novels. These can be in either monomodal or multimodal outlook. In view of their ubiquitous presence in contemporary space, Baguley, et al (2010) perceive contemporary readers as “digital natives and techno savvy.” The term “digital natives” is used as an umbrella term which puts an entire generation born into technology era under the same attributive category.

Stated broadly, this generation is presumably conceived to be well vested with a broad range of text types which in their diversity comprise different semiotic designs used according to their material affordances (Morgan & Ramanathan, 2005; Cowan & Albers, 2006; Mills, 2010). Although respondents in the current study could be identified as digital natives by virtue of them being predisposed to an information society, it did not

necessarily translate into a substantial knowledge of the digital genre conventions and contemporary communicative trends that characterise multimodal representations.

The study findings are also discussed in line with Luke and Freebody's (1999) Four Model Resource on competent reading attributes. The resource model portrays an ideal reader as a competent code breaker; critical text analyst, text participant and efficient text user. Code breaking entails an ability to identify and recognize a range of codes associated with words, visual symbols, sound and verbal communication. Coding practices in line with Luke and Freebody (1999) would entail reader/viewer's capacity to encode and decode the intricate sets of modes embedded in different texts and their communicative significances.

A study by Afflerbach (1990) investigated the influence of prior knowledge of text genre on readers' prediction strategies. The study established a causal link between readers' familiarity with text types and genre with content prediction competency. The same observations are reiterated in Fludernik (2000:289) on genre, text types and discourse modes who noted that an awareness of the generic alignment of the text would directly influence how information embedded in a text would be processed, read and decoded." Conclusively, the advocates of multimodality including Anstey, (2002); Cope & Kalantzis, (2000) & Kress, (2010) identified knowledge of semiotic modes as one of the basic requirements for reading competency in a multimodal environment. In the current study, attempts are also made to explore the extent to which respondents' interpretative perspectives on text genre play a role in their interpretation of semiotic designs and semiotic elements in subsequent sections which focused on visual semiotic design, spatial semiotic and linguistic semiotic design.

The findings on the first inquiry contested a popular misconception that all students categorised as digital natives are likely to display homogenous digital competencies (Thompson, 2015). The term "digital native generation" is used to identify a generation which exhibits a pre-set of skills that would separate them from the previous generation inherently exposed to traditional literacy practices. Some of the inherent qualities that mark digital native generation include a sustained and frequent exposure to visual design principles (de Vos, Eideman-Aadahl, & Hicks, 2010s; Drotner, 2008; Kress, 2003, 217);

special knowledge of digital genres and a refined understanding of the functionality of digital writing tools (Doering, Beach & O'Brien, 2007; Martin & Lambert, 2015). In terms of reading preferences and competencies, digital native generation is professed to demonstrate a preference to speed; pictures over text and a nonlinear approach to information processing (Prensky 2001; Tapscott 2009). However, these attributive features are the exact opposite of a monomodal print based literacy practice which, despite the ubiquity of multimodality, still characterises classroom instruction in academia.

Substantial cautionary remarks were put forward to challenge the notion of digital native homogeneity. Guo, Dobson, and Petrina 2008 as well as Kennedy and Judd (2011) argue that it is invalid to conclude that technology exposure and use among people is ubiquitous and homogenous. Access and exposure are therefore contextually unique with factors such as information skill gap and socio-economic disparities emerging as major constraints. Secondly, Thompson, (2015:468) views the relationship between technology use and learning as more complex and therefore less deterministic to predict reading competencies. Although respondents are immersed in a visual space dominated by varied digital genres, visuals and a multimodal approach to meaning making, their knowledge and awareness of contemporary communicative practices that characterise multimodal affordances is different.

The next section analyses and discusses respondents' interpretations of spatial semiotic design and the communicative function of semiotic position on a given text.

## 6.1 RESPONDENTS INTERPRETATIONS OF SPATIAL SEMIOTIC DESIGN

There are different perspectives that guide the interpretations of semiotic modes of a given text. In this section, spatial semiotic modes are interpreted in relation to Halliday's propositions which indicate that "all semiotic modes must ideally represent three communicative broad metafunctions", namely, ideational, interpersonal, and textual. Halliday's proposal also influenced Kress & Van Leeuwen (2006) who also acknowledges three metafunctions model as a useful resource to interpret modes of representation in their variation (sections 3.7.2 and 3.8 respectively which expounded the model and its application in the study).

Discussion in this section also makes reference to the interpretation of meaning along two distinct dimensions – vertical spatial dimensions (left-right) and horizontal spatial dimension (top-bottom) spatial semiotics which inferentially associate meaning of a mode in relation to its spatial position as expounded in section 2.5.3.

Making sense of respondents' interpretations in relation to textual-mode relation necessitated reference to relevance theory with its emphasis on the following major stages of interpretation:

Testing interpretative hypothesis using least effort

Determining congruency/incongruence of responses

Using contextual cues to judge conclusion

Examining how reference resolution is explored

How argument is enriched

Implicatures which involves ability to determine meaning beyond literal sense

Pilkington (2000)

Respondents' interpretations of spatial semiotic design were based on the question:

*Could there be any reason/s why images on text D appendix 1A were placed on different spatial positions: factories on the left and trees on the right side of the text?*

As a prelude to respondents' interpretations of spatial design, a brief explanation is given on how text designers used spatial semiotic design to construct and raise specific ideological arguments. The context of a text is explored to provide a basis for assessing the aptness of respondents' interpretations.

### **6.1.1 POSSIBLE INTERPRETATION OF TEXT D IN APPENDIX 1A**

Text D is an example of a multimodal text which used spatial, visual and linguistic semiotic designs cohesively to mock and discourage industrialization for its potential harm to the planet. The three semiotic designs were cohesively integrated for their distinct materiality and affordances hence their semiotic and semantic significances need be explored holistically. The removal of any of the three semiotic designs from the text would have in line with Horn's (1999) concept of semiotic coupling, and Royce's (1998) concept of intersemiosis, disrupted potential semantic cohesion and rendered the text incomprehensible.

The text designer used the linguistic system, marked by the phrase –**LOADING PLEASE WAIT**, to warn of an impending rapid destruction of nature caused by massive industrialization marked by black images of buildings on left horizontal dimension. The visual semiotic design has two overt semiotic resources-images and colours which complemented and reinforced the central message of the text.

In the context of the text, green complemented nature and positive affect while black reinforced negative affect as in Janziz (1998) where black was used to signify all the unpleasantness, sadness and acts that men would consider deplorable and in Grieve (1991), where black connoted bad events or death.

The background highlighted above provides impetus for readers to generate interpretative logical inferences and conclusions on why the images depicting industrialization are on the left and trees depicting nature are placed on the right side of the text. It is the context

of the text that determines how non-linguistic signs like colours, visual variables and elements of spatial design in a given multimodal text are interpreted with relevance.

### **6.1.2 AN ANALYSIS OF RESPONDENTS' INTERPRETATIONS OF LEFT RIGHT SPATIAL DIMENSION**

Respondents associated the use of spatial positioning in text D with *the writer's attempt to attract readers' attention*; they also associated spatial position with text designer's *attempt to make an impression; to satisfy readers' needs and a way to ensure that the text is visible*. This interpretation of spatial design is incongruent to text designer's central message as evaluated in context. It simply reflected respondents' aesthetic appraisal of the text which Van Leeuwen (2017) associates with the use of semiotic modes and design features that have no communicative semiotic significances. Aesthetic use of semiotic modes often marks the artistic appeals of text with no reference to denotative nor connotative signification.

Contrary to aesthetic dimension, Dahlström, (2016) introduced the term critical dimension where meaning given to modes could be decoded as a socially and culturally shaped resource. In line with critical dimension, decoding a text necessitates identification of positional meaning based on relevance which could be genre specific or contextual.

Underpinned by a critical approach to textual analysis, Anstey and Bull (2018) in their ethnographic study, explained how dominant cultural perspectives may influence inferences and implicatures on spatial positioning. They observed that

In Western culture, information on the left side of a screen layout or page could be used to reflect something known while information on the right could reflect something new.

They also observed that

Information on top in western society often suggested something salient or palatable. While in Asian societies, they conversely ascribed importance to central position of the text while object placed on the margins of a page or screen connoted an item of less significance or ancillary.

Critical literacy is therefore informed by a range of knowledge base and in this context, cultural literacy is emerging as one of the requisite literacies.

Respondents' interpretations of the given multimodal text did not show a substantial application of critical approaches to text analysis. Their interpretations of spatial semiotic design did not make reflections on possible positive affect and/or negative affect often attached to left and right positions respectively. As illustrated in Anstey and Bull (2018), left positioning may often connote negativities while right positioning may be used to represent positive affect. However, these are not fixed across domain hence the context always informs the basis of inferential.

Furthermore, respondents' interpretation of spatial semiotic design, when viewed against proposition underpinning relevance theory was incongruent to writer's central intention. Respondents made judgments with no reference to the context of the text which in this case was a campaign against human activity on nature degradation or nature exploitation. Their association of spatial positioning in the text with the idea of *clarity*, *attention grabbing*, and *sequencing* followed when reading, is incongruent to the findings in Davidson, (1992) Natale, Gur, & Gur, (1983) where right side body movement was associated with positive affect and in Casasanto (2009) where left hand side connoted negativity and unpleasant referents.

### **6.1.3 INTERPRETATION OF RESPONDENTS' SUBJECTIVITY**

The New London Group (2000:18) commend pedagogy that is underpinned by an epistemology of pluralism. Pedagogy of multiliteracies encourages subjectivities with justifications informed by the context of the text (Futures, 1996). It is possible, as identified in this study, that readers may have different perspectives which could be congruent or incongruent to the context of the text or even dissimilar to text designer's underlying intentions. Notable explanations for incongruent subjective interpretations to the context of the text are often but not limited to poor inferences on the part of the reader; subjective views underpinned by readers' contextual experiences which are often different from the dominant literacy practices; readers' contextual ideals which are parallel to the dominant/hegemonic cultural perspectives that are influencing the interest and perspectives of text designer. Furthermore, readers with underdeveloped cognitive skills,

poor or deficient vocabulary and poor reading skills may often display limitations in their attempts to decode subtle meaning embedded on a given text.

A study by Kress (2004:209) identified core interpretative perspectives which inform qualities of critical readers: an ability to decipher the interest of the sign maker; understand sign-maker's agency and interest and assess the semantic values of signs in their context. Findings in this study confirm respondents' limitations on critical literacies which enable readers to decode both implicit and explicit meaning across semiotic modes.

#### **6.1.4 RESPONDENTS' CODING COMPETENCE VIEWED AGAINST THE INTEREST OF SIGN MAKER**

The text designer placed modes at different positions of the text (text D appendix 1A) to reiterate or highlight a specific viewpoint. Text designer's depiction of industries in the text is negative for their pollutive and potential destructive effects on nature. Placed on the left and painted black, there is a reiterated view that discourages the mushrooming of industries for their destructive effects against the efforts to preserve nature. This level of designer's creativity is considered a common practice of multimodality as validated in Kress (2000:156) who noted that sign makers' interest can be personal, social and subjected to designer's cognitive and affective process. The interest of the sign maker by using semiotic modes creatively in text D appendix 1A, was to discourage industrialization and pollution while on the other hand projecting nature preservation as ideal for its positive social affect. The text designer placed semiotic modes (visuals) representing nature on the right in line with positive affect attributed to greenery and nature appeals.

Respondents' interpretations of spatial semiotic design in text D, as indicated in table 4.3.1 were inconsistent with interpretative perspectives on the semiotics of space. Their interpretation rather focused on observations which are incongruent to the underlying sign maker's interest. For instance, 14% of respondents raised the idea of *clarity and easy viewing* as major reasons for differential placement of semiotic modes; 14% of respondents argued that, the interest of the sign maker was to *attract and make an impression* while 6% thought differential placement was intended to *improve visibility*. These findings are inconsistent with the presumed characteristic features of a competent



text analyst and the associated coding competencies as highlighted in Luke and Freebody Four resources Model. The model identifies a good text analyst as a “competent code breaker” who is among other things able to “critically analyse texts and comprehend meaning and position of text” (Luke & Freebody, 2000) which was not manifest in respondents’ interpretative repertoire.

### **6.1.5 RESPONDENTS’ VIEWS ON THE SEMANTIC VALUES OF SIGNS**

Spatial positioning as used in text D appendix 1A was not meant for clarity and easy viewing as suggested by respondents M1, M1, M2, M16, M20 and M42. It was also not necessarily intended for attention grabbing and visibilities as suggested by respondents M12, M13, M18, M20, M22 and M1 and M14 respectively. Left position connoted negativities affect as in Cassanto (2009) where left hand side connoted negativities and unpleasant experiences. Placing image of industries on the left side of the text therefore reinforced the negative sentiments that the text designer had against the destructive effect of development on the environment. Conversely, nature marked by green scenery is placed on the right side in line with the positive affect that the text designer desired to sustain as validated in (Natale, Gur, & Gur, 1983; Davidson, 1992) where right body movement correlated with positive affect.

### **6.1.6 INTERPRETATION WITH REFERENCE TO ICONICITY, INDEXICALITY AND SYMBOLIC NATURE OF SIGNS**

Text D in appendix 1A used two iconic signs , namely: images of sprawling factories on the left of the text and images of green tress on the right side. Trees are iconic signifiers/referents based on their similarity and direct reference to nature. Conversely, images on the left side can be interpreted as sprawling urbanization or rapid developments. There is, therefore, a plausible semantic cohesion in the context of a text since it is inferentially plausible to conclude that, the text designer could have used images of sprawling buildings on the left to criticize these human based activities that cause harm on nature.

In line with Kress in (2012) as highlighted in 2.6.3, the text designer used spatial positioning to achieve two semantic possibilities: semantic reiteration and semantic

enhancement. The use of black colour as a visual semiotic element is reiterating the negativities of the sprawling destructive industrialization which is placed on the left side of the text; green colour on the other hand, with its positive affect, in this context, is enhanced by right positioning with its associated positive affect.

The requisite cognitive demand for respondents to associate trees with nature and building with factories should be minimal since there is often a striking resemblance between iconic signs and the denotative concepts they signify. However, establishing why trees are placed on the right side of the text and building on the left side of the text is not determined by the materiality of the sign whether iconic, indexical or symbolic. Meaning given through spatial positioning is therefore not overt nor readily available to novice readers. Spatial meaning proves to be beyond reader's analogous perceptive reference since it is not concrete nor tangible. Tonković's (2013:37) expansion on possible meaning attributable to spatial positioning: vertical or horizontal dimensional reiterates an ethnographic documentation of Anstey and Bull (2018) who recognized that decoding spatial meaning can also be influenced or construed by associational inferences which could be cultural, informed by contextual regularities, beliefs and norms.

Readers' interpretation of texts is therefore informed by their pre-knowledge and their distinct associative experiences. Text designers, on the other hand, use signs based on the assumptions that the meaning they ascribe to a sign would be congruent to readers' interpretative perspective which in this study was not apparent. Readers therefore have different interpretative competencies which Ohio Resource Center's Literacy, (n.d.) associates with individual experiences and ideological immersions.

## 6.2 RESPONDENTS INTERPRETATIONS OF VISUAL SEMIOTIC DESIGN

Semiotic elements of visual design predicated on multimodal literacy practices include among others: the use of colours, perspectives, vectors, foregrounding and backgrounding as semiotic resources. In this section, discussion focused primarily on respondents' interpretations of colour and its semiotic significance on a given text. Text D in appendix 1A used two colours (black and green) which have different communicative functions in nature and environmental domain.

Respondents' interpretation of colours as a semiotic resource under visual semiotic showed:

### 6.2.1 MULTIPLE PERSPECTIVES ON MEANING GIVEN TO COLOURS

Respondents' interpretation of colours in this section ranged from the depiction of colours based on their aesthetic function; communicative functions of colours; symbolic significance of colours and the depiction of colours as a representation of ideological meaning. The plurality of meaning given to colours and the complexities associated with the interpretation of colours as semiotic resources is confirmed in Schloss, Lessard, Charlotte, Walmsley and Foley (2018:2). In their observation, they noted numerous constraining factors which may include:

lack of one-to-one correspondence between colours and concepts; occurrence and regularity of one-to-many mappings, in which the same colour is associated with multiple concepts and the prevalence of many-to-one mappings in which many colours are associated with the same concept.

Multiple perspectives on the semiotic significances of colours can also be attributed to different factors. Fitch (1988:5) identified cultural standards as major determinants for they modify readers' perceptual input and aesthetic appreciation. Depicting colour interpretation as a sensation triggered by the brain, Rossotti (1983) argues that physiological and psychological factors combined determine how colours are interpreted. This is reiterated in Tofle, Schwarz, Yoon, Max-Royale and Des (2003) in their argument that, psychological, physiological, and social reactions often determine how colours are interpreted.

It is in line with these observations that respondents would, as it has been established in this study, associate colours with different functions, namely: aesthetic function of colours; communicative role of colours; symbolic and ideological meaning of colours and discipline specific uses of colours.

### **6.2.2 INTERPRETATIONS OF COLOURS FOR AESTHETIC PURPOSE**

Aesthetic uses of colours relate to what Ball (1965:441) in the *aesthetics of colour* describes as “the affective responses” of viewers to colours. Two interrelated interpretations emerged on the aesthetics functions of colours in this study. The first group of respondents with aesthetic interpretative perspective associated the use of colours in text D annexure 1A, with better visualization. Respondents argued that text designers used colours for viewers to *visualize better what is drawn on the picture*. The second argument was on categorization where respondents argued that colours were used in text D for *“better categorization with black representing a portion that has already loaded while green showing a portion that is yet to be loaded.”*

Respondents whose interpretation of semiotic resources is limited to aesthetics perspectives often reflect surface level reading which does not take into consideration the contextual and the visual cues surrounding the background of the text. The background of the text provides requisite context for readers to decode deep subtle meaning hidden in the text. Although colours can be used to improve the aesthetic layout of the text, text D designer used colours (black and green) with domain specific semiotic significance where black connoted the unpleasant act of destructive development against nature preservation, while green colour as a visual semiotic resource connoted positive affects intended to influence positive behavioural change to the audience which in this context was to preserve nature.

### **6.2.3 RESPONDENTS’ INTERPRETATIONS OF COMMUNICATIVE FUNCTION OF COLOURS**

Colours play a significant communicative role in visual communications. Their recognition as communicative semiotic resources is largely strengthened by their capacity to portray information quickly; adding emphasis, organizing or giving structure, improving recognition and conveying emotions (Walts, n.d). Schloss, Lessard, Charlotte, Walmsley

and Foley (2018) identified colour as a useful visual communicative feature because it captures readers' attention from a distance as well as signalling a variety of messages.

Appraising the communicative function of colours in text D appendix 1A, respondents provided varied multiple responses on the semiotic significance of colours. Black colour in text D has been associated with a terminal state indicative of *fatal destruction*; respondents also interpreted black colour literally arguing that it marked the process and its status in the text as in: *Black colour is showing us how far the loading is going*. Furthermore, respondents simply identified the communicative function of green colour in the context of the text being to complement the theme of nature.

#### **6.2.4 COLOURS REPRESENTING SYMBOLIC AND IDEOLOGICAL MEANING**

Symbolic meaning is interpreted in this section in line with Kujala and Nurkka's (2016:15) who explored the image and meaning relations that often spring up to viewers' mind as they engage with a specific semiotic mode. Thus, symbolic meaning given to semiotic modes could be attributed to reader's unique contextual experiences, cultural orientations to meaning, belief system, ideological convictions or discipline specific exposure. Respondents' interpretation of colours in text D appendix 1A in line with symbolic meaning and their ideological perspectives included: black as symbolic of darkness, evil, bad events, bad luck and death. This corroborates findings in Breidenbach (1976:140) who noted in his study on *colour symbolism and ideology* that, a Ghanaian healing movement associated black colour predominately with negativities like darkness, loss, hidden and impure things and evil forces, witchcraft, bad luck and death. Members in the healing movement informed by their ideological conviction also used red and white colour with strong conviction where red connoted danger, struggle, and affliction while being contrasted with white implied a change in anticipation of health, life, and group solidarity (Breidenbach, 1976). The findings are also in line with what Thibaut, French and Vezneva (2010) describe as analogy making where readers make use of cognitive skill to link signs with concept they signify. Respondents linked colours in the text with different concepts supported with varied justifications with some congruent and some incongruent to the context of the text.

## 6.2.5 DISCIPLINE SPECIFIC REPRESENTATION OF COLOURS AS VISUAL VARIABLE

Colours can be used to project different things in different domains. Respondents linked green colour in text D to a healthy nature. This interpretation corroborates findings in (Colour Wheel Pro, 2002- 2015: [online]) where green colour connoted nature, growth and health. The interpretation of colour as relatively distinct across domains is confirmed in Chaffee (2014:242) who argued that:

Although the idea of colour may seem a simple concept, it conjures up very different ideas for each of us. To the physicist, colour is determined by the wavelength of light. To the physiologist and psychologist, perception of colour involves neural responses in the eye and the brain and is subjected to the limitations of our nervous system. To the naturalist, colour is not only a thing of beauty but also a determinant of survival in nature. To the social historian and linguist, our understanding and interpretation of colour are inextricably linked to our own culture. To the art historian, the development of colour in painting can be traced both in artistic and technological terms. And for the painter colour provides a means of expressing feelings and the intangible.

Conclusively, the multiplicity of perspectives on symbolic meaning given to a specific semiotic mode augments the advocacy for a change of focus, from literacy to literacies which among others take into cognisance the role critical literacy plays in shaping readers' interpretative perspectives on a given text. This move would be in keeping with the reiterated gradual textual shifts which are made possible by the affordance of digital technologies. Modes which were semiotically discrete and separate are now integrated effortlessly thus reconfiguring writing and reading practices in a manner never imagined before.

### 6.3 DISCUSSION ON RESPONDENTS INTERPRETATION OF LITERACY DEVICES IN A GIVEN MULTIMODAL TEXT

There is a compelling distinction between linguistic theory and semiotic theory. While linguistic theory accounts mainly for meaning derived from words (linguistic semiotic system), in addition to words/language, semiotic theory also accounts for other meaning-making modes which could be gestural, spatial or visual (Kress, 2003). The use of visuals as literary devices is one of the practices in multimodal representation. Literary devices are not limited to print texts (Danielsson & Selander, 2016). Literary devices like other modes are adopted in multimodal representations for their effectiveness in expanding the text's intelligibility. Based on their capacity to create vivid analogies, literary devices are gaining dominance in different types of multimodal texts which among others include graphic novels as outlined in Dallacqua (2012); in visual rhetoric as demonstrated in Schneider (2013) and in Danielsson and Selander, (2016) as demonstrated in their study on reading multimodal texts for learning to cultivate multimodal literacy.

A similar approach was adopted in text C (appendix 1A) where the trunk of a tree was modified artistically to personify motherhood and a state of pregnancy. The text designer encoded human hands embracing the trunk of a tree to visually reinforce the statement presented in print:

*“Mother Nature too needs care and protection. Show her you care. By caring for her trees. Love trees ... love nature.”*

There is therefore semiotic cohesion used for the purpose of semantic enhancement and/or semantic reiteration. Text C designer used literary devices presented as visual narratives to reinforce his central argument: nature is vulnerable and defenceless as and would need the same care as women their delicate state. It depicts nature like woman as vulnerable; the text designer suggests requisite care that humanity should extend on nature to ensure its sustenance and productivity. This semantic analogy is visually narrated. The overt literary device used in the text is personification, which created a vivid figural analogy between nature and womanhood.

Other common literary devices which are also often integrated in multimodal texts include among others, metaphor and symbolism as expounded in Small, (2010); Delbaere,

McQuarrie, and Phillips, (2011); visual metaphor is also common in instances where comparison is made through the transfer of an entity's attributes to another (Feinstein, 1982). Visual imagery is also used as a communication tool as represented in Foss, (1992); while the use of symbolism is common in visual rhetoric as explicated in Gatta, (2009).

The next section presents an analysis of respondents' interpretation of literary devices as used in multimodal text C appendix 1A). It highlights an analysis of respondents' identification of literary devices in the text; evaluated respondents' interpretation of literary devices and their narrative effect on a multimodal text.

### **6.3.1 RESPONDENTS' IDENTIFICATION AND INTERPRETATION OF LITERARY DEVICES IN TEXT C**

Respondents identified personification, metaphor, symbolism, imagery and allegory as the dominant literary devices used in text C. 13.8% of respondents identified personification as a dominant literary device in the text.

The first respondent justified the choice with the argument that *mother in text C is used to personify nature which is also reinforced by pronoun her.*

The second respondent justified the choice with the argument that *the text is given a feminine attribute hence personification is identified as the literary device in text C.*

The third respondent commented on the manipulated visual design features of a tree trunk depicting pregnancy and human hands as indicative of *requisite care a pregnant woman would need.* Respondents' central argument congruent to text designer is that *the same care that a pregnant woman would need, is the very same attention that nature would need.* The fourth and the fifth respondents identified literary device as personification because *nature is portrayed as loving and that a pregnant woman draws the attention that, we are to show care, love and respect nature as we are to respect womanhood and pregnancy.*

From the above responses, one notes that the text designer has managed to effectively send the message across in multiple modes. In their argument, respondents managed to show a strong connection between visuals, words and the suggested literary device. The



findings corroborate with the concept of “ecofeminism” in Roach (1991) where nature is associated with feminine and maternal attributes. These are ideological perspectives which are available in public space which often influence the link between signs, meaning and concepts in different contexts. It also validates the debate of texts as intertextual (Fairclough, 1993) and texts being articulation of multiple voices and multiple texts (Moloi & Bojabotseha, 2014). Reading a multimodal text, therefore involves decoding subtle voices embedded within a text which necessitates reference to hidden texts which may not be ordinarily available to novice readers.

### **6.3.2 LITERARY DEVICES IDENTIFIED WITH INCONGRUENT JUSTIFICATION**

A small percentage of respondents identified metaphor and symbolism as the dominant literary devices used in text C. With an incongruent justification, respondent M24 argued that, metaphor was used in text C because *it is reinforced through how the trees grow under the sun*. Similarly, respondent M17 identified symbolism as the dominant literary device with an incongruent justification *the usual way of disseminating information has been used as symbolism to the nature or imaginary of the text*. There are numerous studies which investigated a causal link between readers’ ability to interpret conventional language expression and their general reading and comprehension levels. For instance, a study by Wiejak, (2014:11) established that, “improvement in reading skills can be paralleled by an improvement in metaphoric competence.” Furthermore, in his attempt to establish the interpretive constraints that readers may incur when concepts are combined, Wisniewski, (1997) suggests three potentially applicable interpretive strategies: relational linking, hybridization and property construction. Successful relational linkage of two separate concepts presented can only be achieved when a reader has completed the process of what Glucksberg, McGlone, Grodzinsky, and Amunts, (2001) identified as property extraction. When property extraction is applied in the context of the text, it is argued that, readers’ attempt to link concepts with the referent would most likely be correct. When readers are interpreting subtle meaning presented figuratively or in signs, establishing relational link in the context of the text would often yield desired and correct interpretation.

### **6.3.3 CONTRASTING VIEWS ON REQUISITE INTERPRETATIVE REPERTOIRES**

There are two dominant contrasting views underlining interpretative repertoires readers would need to decode metaphors. The first view is that readers would need different interpretive strategies when analysing verbal and visual input as metaphoric representation. Negating the preceding view, Yus (2009:141) argues that

although the perception of images would be different from linguistic decoding, reaching an interpretation of metaphors entails similar adjustments of conceptual information of text and images and multimodal combinations regardless of the modal quality of the input.

Yus (2009) concedes that the perception of images is different from linguistic decoding. Images used as in visual narratives are often vivid, direct and iconic. However, when readers correctly identify a literary device in a text, they should be better placed to interpret their narrative effects in further conceptualizing a specific phenomenon.

### **6.4 ANALYSIS OF RESPONDENTS' INTERPRETATION OF TYPOGRAPHIC FEATURES**

Social semiotics is underpinned by the assumption that all features of a text are potential signifiers or referent to a predetermined conventional meaning, and they contribute differently to the central meaning of a text. According to Serafini and Clausen (2012:1), the typography of a written language not only serves as channels through which verbal narrative is conveyed; it is viewed as a visual element and a semiotic resource with its own meaning potential. In Brumberger (2003), the typographic design features of a text are said to be strongly linked to the content conveyed and the communicative text designer's intended communicative intention.

Hassett and Curwood (2009), concur that typeface, like font size in multimodal picture books and websites, may not just be treated as elements of aesthetic visual appeal. Rather, they are vehicles through which the written language is materialised. Serafini and Clausen (2012) argue that establishing these meanings from a given text would require what they call "for sighted readers who may demonstrate an ability to link meaning

conveyed arbitrarily to its plausible signifiers with reference to the context of a given multimodal text.

Likewise, Text D and E in annexure 1A deployed various typographic features which are not overt features of linguistic verbal text of multimodal affordances. These features contributed differently to the central meaning of each text. Notable typographic features in these texts included the use of capitalisation, weight, size, font pattern and text variation.

In text D annexure 1A, the verbal text: **LOADING** is composed of noticeable typographic taxonomies which include: the use of capitalisation, relatively increased font size, weighty and boldened verbal formatting with darkened orientation. On the other hand, the phrase: PLEASE WAIT, is written in a relatively smaller size and a slightly fading font. The use of contrasting typographic features as demonstrated above is portrayed in Hannah (2019) as a vital meaning-making practice which should be explored when processing the content of the text for broader conceptualisation.

It is inferentially plausible to associate the use of **bold formatting** and CAPITALISATION in text D annexure 1 A, to text designer's attempt to emphasise the message of warning against an impending destruction which, according to text designer, could be stalled if nature preservation were to be prioritised.

Similarly, text E in annexure 1A is composed of minimal verbal text but with subtle typographic features which have been deployed to express text designer's ideological perspective. The text designer used two overt features which when viewed cohesively, reinforce the same central meaning. The overt features include the use of "white space" described in Hannah (2019) as : the space around the text or graphics whose explicit role may include intentional reduction of clutter for better readability, attempt to command reader's direction and attention to the main text and also for aesthetic pleasing experience.

Inferentially, text E designer also used capitalisation, size and weight on the verbal text: "ME" to put emphasis against self-centeredness for its potential impediment against long-lasting relationship. Also, if the same verbal text is turned around as suggested in the

text, it can be viewed as a capitalised **WE** to put emphasis on the positive affect emanating from collaborative effort instead of self-centredness. The **ME** has to be rotated 360 degrees, a complete change and therefore a complete revolution, suggesting total transformation into **WE**.

In the current study, 25% of the respondents associated the use of the given typographic features with text designer's attempts to put emphasis, reinforce and indicate the seriousness of the subject matter. In Serafini and Clausen (2012) weight, size and font pattern (**bold** or *thin*) were linked with functions like an expression of salient features where bold marked more salient and thinner less salient features. In Samara (2007) they were used as referents to concepts like energy and elegance while Moys (2011), used capitalisation as intricate components of design feature which add emphasis to a given verbal text. Respondents' association of CAPITALISATION with emphasis and elaboration is therefore plausible in the context of the text.

Nevertheless, meaning given to typographical features on a given text is not always overt to all readers. Although the practice of modal integration is gaining momentum in the contemporary communicative domain, Serafini and Clausen (2012) warned that, as the complexity of multimodal texts increases, the strategies and interpretive repertoires readers may draw upon would need to expand to meet the demands these texts present. Incongruent interpretations of typographic features were as such noted in this study with respondents M15, M22, M32, M36, M45, M13, M1 respectively associating typographical features in text D and E with parallel incongruent implicatures.

These included associating capitalisation with *a sense of continuation*, *fact finding* and *fighting back* respectively. The interpretation of capitalisation as a way of *showing how money works in the world* is strikingly incongruent in the context of a text since no visual cues nor verbal text could be traced in the text to validate or confirm such an incongruent inference.

The argument that there is no universal consensus on the expressive attributes of typographic design features affirms what Serafini (2012) identifies as the complexities of decoding semiotic resources. Typographic features do not only generate cognitive meaning as verbal texts mainly do. Conversely, they are noted to inherently convey

affective judgement which among others would also include expression of mood, feeling, tone, attitude and atmosphere (Brumberger, 2003; Shaikh, Chaparro, & Fox, 2006; Moy, 2011; Hannah, 2019). However, when they are decoded in unison with verbal texts, typographic features can generate what verbal text alone may fail to generate.

## **6.5 CONCLUSION**

This chapter interpreted and discussed findings on respondents' interpretation of selected types of multimodal texts and the affordances of inherent semiotic modes. The first section of the chapter was designed to establish respondents' understanding on digital genre conventions and their attributive features. The second part of the chapter addressed respondents' interpretation of colours as a basic element of visual semiotic design. Respondents raised different views with congruent and incongruent justification on the use of colours as a semiotic resource on a given. This was followed by a discussion on respondents' interpretation of spatial semiotic and its sematic significance; a discussion on respondents' interpretation of literary devices and how they are used as visual narrative to expand the narrative repertoire of the text. The last section looked at respondents' interpretation of typographic features of linguistic design and the meaning they convey in the context of a text.

## **CHAPTER SEVEN: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **7.1 INTRODUCTION**

This chapter provides an overview of the study, highlighting major findings and conclusion. The limitations of the study are also highlighted in this chapter followed by recommendations for further study and concluding remarks.

### **7.2 SUMMARY OF THE STUDY**

The study aimed to explore the affordances of semiotic modes on selected multimodal texts and the interpretative repertoire displayed by University of Venda level 300 Media Studies students. Semiotic designs which were explored as core composite features of multimodal texts are linguistic, visual, spatial and gestural semiotic designs. Each design is further composed of semiotic elements ranging from typographic features of a verbal text or linguistic semiotic design; colours, images and texture on visual semiotic design; positional meaning; vertical versus horizontal or left versus right positional dimension as semiotic features of spatial semiotic design and static gestures of gestural semiotic design.

Predicated on Semiotics Theory, Social Semiotics and Multimodal Critical Discourse Analysis, the study explicated the process of meaning-making as a product of sociocultural convention and a discipline specific practice. Theoretical bases of the study underpinned the conclusive propositions that all signs (linguistic and non-linguistic) have unique affordances hence their materiality determines their aptness to communicate or signify a specific concept, message or ideological meaning. This view heightens the emancipative drive for a change of emphasis from monomodal literacy to multiliteracies which in addition to monomodal print based literacy, cotemporary readers would demonstrate a heightened awareness to diverse textual features thereby providing them with a wide interpretative base towards new literacies and multiliteracies.

In line with the central enquiry, the study also used relevance theory to assess the aptness of inferences that respondents make when decoding semiotic modes with context relevance. Relevance theory evaluated the aptness of respondents' inferences and the plausibility of their arguments and judgments in the context of a text.

The findings provided impetus for the reconfiguration of literacy offering into a context-based pedagogic and epistemological interventions that may address a wide range of requisite critical literacies associated with multimodal representation. These include among others embracing a reflective pedagogic practice, developing critical readers who are able to interrogate a wide range of texts beyond surface discourse in order to establish both implicit and explicit subtle meaning embedded on a given text.

### **7.3 PARTICIPANTS, INSTRUMENTATION AND PROCEDURE**

Respondents in this study were University of Venda, Level 300 Media study students who were purposively sampled, with convenient sampling as its subtype. Respondents were sampled based on their ideal characteristic features and their potential to provide in-depth responses and requisite data for the study. The homogenous characteristics of respondents included the following parameters: all respondents had completed level one English Communication Skill modules for first and second semester coded as ECS 1541 and ECS 1641; all respondents had English and Media study as their majors, and they were at an exit third-year level and they were registered students of the University of Venda.

For data collection and establishment of respondents' interpretations of multimodal texts, the researcher used an administered test (**Appendix:1A**) modelled on Multimodal Assessment Framework. Developed with bloom taxonomy considerations, the test is a composite of questions which evaluated various aspects of multimodal interpretative perspectives which are varied in their level of cognitive and perceptual demand.

The test assessed respondents' multimodal interpretative competencies based on the following questions:

1. To what extent are level 300 Media Studies Students at University of Venda familiar with multimodal semiotic designs and the affordances characterising multimodal representation and new literacies;
2. How do level 300 Media Studies students interpret visual semiotic resource as used on selected multimodal texts?

3. How do level 300 Media Studies students make sense of the affordances of spatial semiotic designs on selected multimodal texts?
4. To what extent are University of Venda level 300 media students able to establish the literary devices and their communicative significances on selected multimodal texts?
5. How do level 300 Media Studies students make sense of typographic features of verbal texts as used on a given multimodal text?

## 7.4 SUMMARY OF FINDINGS

Major findings are preceded by a preview of participants' biographic details. Biographic details covered respondents' gender, nationality, race, ethnicity, age group and a confirmation of respondents' academic credentials. Female respondents were in the majority (72.3%) compared to (27.7%) of male respondents. 97.3% of respondents were South Africans with only 2.7% of Non-South African. There were diverse language groups characterising participants. From highest to lowest, language groups ranged from Pedi (36%); Venda (30%); Tsonga (16.6%) and Sotho (5.5%). The four language groups, namely Sotho, Swati, Shona and Zulu had one participant with 2.7% each respectively. All respondents, in terms of chronological age could be identified as digital native generation; born after 1980 and immersed in a world saturated with digital technologies, textual diversity with new literacies emerging. The age group ranged from 19-20 with 16.6 participants; 21-22 age group with 33.3%; 23-24 age group with 30.5 and the last group marked 25+ had 19.4 participant %. The group with highest percentage was age group 21-22.



## **7.5 DISCUSSION OF STUDY RESULTS**

This section highlights a discursive account on multimodal representation and its causal link with critical literacies, new literacies and multiliteracies. This is followed by a discussion of major findings on central research questions of the study. A brief account on literature established the following developments that summarized multimodal affordances and multiliteracies.

### **7.5.1 MULTIPLICITY OF TEXTS WITH UNIQUE AFFORDANCES**

Digital texts with their interactive nature (Pachler, Böck, & Adami, 2014) and their capacity to integrate diverse semiotic modes are driving the need to reconfigure literacy or even redefine literateness in the 21<sup>st</sup> century communicative era. Traditional literacy perspective, with its emphasis on monomodal print-based affordances is still a critical component of academic literacy. However, as texts with additional semiotic features are dominating contemporary communicative domain, in both print and digital space, an impeding textual shift from monomodal to multimodal representation is gradually manifesting to be inevitable and necessary.

### **7.5.2 APPROPRIATENESS OF RESPONDENTS' INTERPRETATIONS OF SEMIOTIC MODES IN THEIR CONTEXT**

Meaning making is multimodal in nature. This even extends to monomodal print based texts which mainly make use of verbal texts. Typographic elements of verbal texts make up the multimodal nature of text which add affective and cognitive meaning thereby enriching the communicative experience of text. A theoretical proposition which accounts for all signs is fundamentally important in the current communicative era. Social semiotics theory provides a requisite theoretical base in the reading of all signs (linguistic and non-linguistic) interpreted with genre and discipline specific relevance. Unlike linguistic theory, with its major focus on the verbal text as the preferred mode of affordances, social semiotics theory goes further to explore the materiality of signs and their capacity to communicate the desired meaning.

The study established that, in semiotics and social semiotic terms, meaning-making, verbal or non-verbal, is multimodal. Although one mode may dominate a specific communicative text, multimodal interpretative perspective urges readers to explore all subtle compositional features of a text and their semiotic significance in the context of a text. In a written text, writers may use typographic features like font type, pattern, size and weight; alignment pattern to indent (decreasing or increasing) a section of a text to signify something. When these formatting applications are looked at with a social semiotic perspective, they widen requisite affective judgment and cognitive capacity to make sense of a given text.

## **7.6 DISCUSSION OF RESULTS ON MAJOR RESEARCH QUESTIONS**

### **7.6.1 RESEARCH QUESTION ONE**

*To what extent are level 300 Media Studies Students at University of Venda familiar with multimodal semiotic designs and the affordances characterising multimodal representation and new literacies?*

6 respondents got two of the questions correctly with 25%; 2 respondents got three of the questions correctly with 37.5% correct responses. Interpretation of semiotic designs and general knowledge on the affordances of semiotic design at this level could be considered inadequate. There were 14 respondents who scored 50 % with half of the questions correctly interpreted. A total of 38.4% of respondents scored above 50% with 62.5%, 75.5% and 87.5 respectively. There is however no proven direct link between respondents' awareness on terms, knowledge of digital genres and the affordances of diverse semiotic modes to competency or ability to decode multimodal texts. The study validates some of the misconception about digital native generation. Firstly, not all digital native generations have sustained and frequent exposure to visual design principles as posited in (Devos et al, 2010; Drotner, 2008 and Kress, 2003, 2017). Secondly, the study also established that not all digital natives have a special knowledge of digital genres and a specialized knowledge of the functionalities of digital tools and genre conventions as suggested in (Martin & Lambert, 2015). The notion that, digital native generation may show some preference for pictures over text and nonlinear approach to information

processing as suggested in (Prensky, 2001; Tapscott, 2009) could not be confirmed in the current study. However, the researcher contends that, a general awareness on the materiality of signs and a general knowledge on the affordances of semiotic modes is critical since text category or genre generates a specific type of interpretive view.

## 7.6.2 RESEARCH QUESTION TWO

*How do level 300 Media Studies students interpret visual semiotic resource as used on selected multimodal texts?*

Visual semiotic resources are varied. However, the current study focused only on the use of colours as one example of the elements of visual semiotic design. Text designer used two colours: black colour depicting destructive development and expansion at the expense of nature and green colour used to signify the ideal nature which is depicted as gradually depleting as a result of human factor. The study also established that colours have no universal meaning. Meaning given to colours is based on inferences which need to be evaluated for relevance in the context of the text. However, respondents used generalization where black was also associated loosely with darkness (11.11%), bad luck and evil (8.3%), danger (6%), death and killings (2.7%) vandalism and destruction (6%) and terminal state (2.7%). There are also references to black colour which were made with no plausible justifications in the context of the text. These included associating black colour with better visualization (8.3%) over population (2.7%) and risky behaviour (2.7%).

Secondly, the study established that, semiotic modes with prototypical visual referents can be decoded denotatively through association and analogy making. Green colour has both metonymic and analogous association with nature. It is for this reason that respondents easily associated green colour with nature complementing (17%); beauty of nature (6%) symbol of life (6%). However, incongruent interpretation of colour was established with green colour depicted as being symbolic of joy (2.7%); good air (2.7%) and health and delay (2.7%).

### 7.6.3 RESEARCH QUESTION THREE

*How do University of Venda level 300 Media Studies students make sense of the affordances of spatial semiotic designs on selected multimodal texts?*

Meaning given through the affordance of space is not overt. The study established that readers have limited Higher Order Thinking Skills (HOTS) to decode meaning conveyed through spacing and spatial positioning of modes. Informed by bloom taxonomy, (HOTS) include respondents' ability to synthesize and analyse information; ability to reason, evaluate and comprehend facts (Cañas, Reiska, & Möllits, 2017). Respondents' interpretation of spatial semiotic design in this section did not reflect the application of these fundamental skills which are of critical value in multiliteracies.

Respondents' interpretation of spatial semiotics evidences aesthetic dimensional analysis of modes. Their interpretation of spatial semiotic design listed the following as fundamental reasons for placing modes on the left and the other on the right position of the text: *clarity and easy viewing; attraction* and the need to make an *impression; visibility* and an *attempt by the text designer to satisfy the needs of the reader*. These responses when evaluated premised on relevance theory and social semiotic perspectives were incongruent to the context of the text.

Conversely, when HOTS are applied, respondents may make logical deduction to synthesize and correctly comprehend subtle information. Text designers in this context used spatial positioning to convey negative affect associated with unsustainable development and used right positioning to convey the positive affect associated with nature. Respondents' interpretation of spatial semiotic design was as a result inadequate in view of its requisite interpretative inferential for correct interpretation.

### 7.6.4 Research Question Four

*To what extent are University of Venda level 300 Media Studies students able to establish the literary devices and their communicative significances on selected multimodal texts?*

Multimodal representation accommodates the integration of literary devices presented visually. Based on their capacity to expand text narratives, when visuals are creatively linked with literary devices, they can perform different semantic functions on a given

multimodal text: semantic enhancement, creating analogy and semantic reiteration. Text C annexure 1A used literary device to portray an image of a person cuddling the base of a tree. This can be semiotically interpreted as a call for humanity to exercise care, caution and affection on nature as one would to vulnerable feminine beings. Nature is also depicted as vulnerable hence an analogy to pregnancy is conjured in the text.

13.8% of the respondents identified personification as the dominant literary device with compatible justifications. Respondents also identified metaphor (5.5%) as the most apparent literary device used, symbolism (5.5%) imagery 2.7%) and allegory (2.7%).

Literary devices presented with visual narratives add impetus to the notion of iconicity of signs/semiotic mode. Iconic signs have prototypical visual referents which are similar to the concept signified. Conversely, visual syntax references may not be directly similar to the signified concept. Prototypical visual referents can be interpreted denotatively; conversely, visual syntax referent is mediated to convey a socially constructed meaning. In that case, readers would need application of HOTS to decode meaning on a given text.

There are also multiple voices that are common features of multimodal representation. As critical readers, respondents should be able to unearth deep sited subtle meaning embedded in a text. They should also demonstrate an ability to challenge ideological argument. For instance, the depiction of nature with feminine comparison is argued in Roach (1991) to be indicative of ecofeminism ideology. When readers can establish hidden ideologies in a text like this, they would be better placed to widen their argumentative and interpretative repertoires. However, respondents' interpretations of literary devices in the study were mainly limited to simple identification of a literary devices and the associated justifications.

#### **7.6.5 Research question 5**

*How do respondents decode or make sense of typographic features of verbal texts as used on given multimodal texts?*

The affordances of new digital technologies allow text designers to format and reorient verbal texts by adding different special design characters. Typographic features are as such increasingly used for different communicative and affective functions. The

affordance of digital technology has thus remarkably reconfigured what text designers as encoder can do with signs thereby widening meaning-making options with expanded communication possibilities and new requisite interpretative skills. Unlike before where typographic features were mainly decoded mainly as ornamental and aesthetic features of a verbal text, they are now increasingly used with added semantic functionalities.

Respondents' interpretations of typographic features differed. With 25% of congruent interpretation, it is apparent that the reading and interpretation of semiotic resources is a complex cognitive process which goes beyond simple identification of compositional elements of semiotic features.

In addition to the ability to identify and name the semiotic features which make up a text, readers would as well require perceptual congruency. In this context, this would involve establishing text designer's ideological position as well as determining the intended communicative intentions that underpinned the choice of a sign in the context of a text. These are inherently special features of critical literacies which according to Jordão and Fogaça (2012) may involve questioning legitimate meaning as well as creating new ones or complying to the meanings assigned by others to the world. It espouses the development of critical readers who read beyond the face value of a text in order to unearth and contest claims with congruent and plausible justifications.

## **7.7 IMPLICATIONS OF THE STUDY**

### **7.7.1 CONVERGENCE OF DISCIPLINES AND DISCRETE EPISTEMOLOGICAL CONTENT**

Literature review shows that construction of multimodal texts accommodates the infusion of parallel disciplines and separate epistemological content. There is a growing interdependence of knowledge across academic disciplines even those which were traditionally viewed as discrete and not related. Arts is merged with graphic design, and ICT; copy writers and linguists are forced to work hand in hand with cultural experts who may have a wide interpretation of semiotic designs and modes across different cultural contexts. Website and content administrators work hand in hand with semioticians with in-depth understanding of semiotic designs and their potential meaning in different contexts.

### **7.7.2 PERCEIVED DISJUNCTURE BETWEEN TRADITIONAL LITERACY AND NEW LITERACIES**

Readers oriented towards traditional literacy perspectives may possibly view the emergence of new literacies as a disruptive development to the already established and stable linguistic semiotic system which has for ages dominated academic domain and official functionaries. This could be attributed to the observed preoccupations characterising digital natives which among others include: relative sustained and frequent exposure to digital texts and visual design principles (DeVos et al 2010; Drotner, 2008; Kress, 2003) digital native generation perceived preference to speed; and a perceived preference for pictures over text and a nonlinear approach to information processing (Tapscott 2009; Prensky 2001). Traditional literacy reading on the other hand is perceived to be simplified, uncomplicated with emphasis on textual practices in which the text is an alphabetic script (Pullen, 2010). This potential discord between new literacy and traditional literacy proposition may necessitate a thorough examination to establish possible implications on emerging core requisite literacy standards in academia.

### **7.7.3 MULTIPLICITY OF MEANINGS GIVEN TO SEMIOTIC MODES**

Semiotic modes in multimodal texts as confirmed in the study often generate multiple subjective meaning. This validates the need to develop students' critical literacies for them to develop reading skills beyond establishing surface and denotative meaning of a text. The study confirms the need to develop 'critical literacies and cultural literacy as the subthemes of literacies. In line with multiliteracy framework, critical thinkers are not only reflective but are text analysts who decode and interpret texts with interrogative stance. This approach to text analysis assists readers to critique multiple voices within the text; promote subjectivity and with text interpretation viewed as an open space that gets modified by each new reading and interpretation (Manyawu, 2012).

### **7.7.4 LANGUAGE INSTRUCTORS AND LITERACY PRACTITIONERS**

It is important for language instructors and academic literacy practitioners to reduce the potential skill gap that might widen as a result of technological innovations in contemporary communicative domain. Notable developments include the increasing dominance of screen-based affordances over print paper; the ubiquity of digital texts; the complementary uses of modes adopted for varied reasons: easing semantic load and the use of diverse modes to maximise transferability of concepts across perceptual differences.

### **7.7.5 CONTEMPORARY READERS AND STUDENTS**

Contemporary readers and students alike are immersed in a communicative space which is information rich and dominated by visuals variables and multiple texts with peculiar semiotic designs. Meaning making is therefore often a product of multiple semiotic ensembles. These modes are co-opted based on their materiality, affordances and genre conventions. Literacy and language instruction confined on linguistic semiotic system as the traditionally dominant mode of affordance would therefore be unresponsive to the emerging and prevailing contemporary communicative developments and meaning-making practices.



## 7.8 LIMITATIONS

To examine respondents' interpretation of multimodal texts, the researcher had to develop and administer a test which evaluated respondents' interpretations of semiotic designs. Multimodal representation being a complex and an emerging field, some of the key concepts and terminologies are technical and possibly not readily available to most readers. It is for this reason that some of the samples in the study had to be discarded for lack of clarity and several no comment responses.

## 7.9 RECOMMENDATIONS FOR FUTURE RESEARCH

Since the current study was confined to the University of Venda level 300 Media Studies students with English as their major, a further study which also includes students across disciplines is necessary. This would further establish possible interpretative limitations which could be confined to students' academic epistemological orientations.

The researcher recommends concerted research effort to establish the causal link between sustained exposure to multimodal texts, digital texts and genre conventions to readers' reading and predictive competency. Findings in a study of this nature would avert potential disjuncture between proponents of traditional literacy perspectives and those urging for the new literacies.

The researcher also recommends that study be conducted to establish teachers' perceptions on the adoption of multimodal design in language teaching classroom. Perceptions of language instructors and literacy practitioners towards multimodality as a scholarly discipline may have profound implications. When their perception is positive, multimodality and new literacies would be viewed as a pedagogic resource but when the attitude is negative, they are likely to be viewed as disruptive developments which should be discouraged.

The study also recommends that further studies be done to establish the role of hegemonic cultural perspectives on learner's cognition. There is a consensus that popular culture and the dominant ideals would always influence how concepts are interpreted and how information is processed. A study of this nature would provide answers to debates

like the transferability of concepts across modes and how interpretation of concepts is affected when modes shift when representing the same concept.

The researcher recommends a text-based enquiry which would fully explore multimodal texts in their diversity. Such studies would also expand the notion of genre conventions, relevance and genre context-based interpretation.

## **7.10 CONCLUSION**

This chapter provided a general overview of study. Major findings on the affordances of semiotic modes were highlighted including a discussion on respondents' interpretation of selected multimodal texts. Implications of the study were highlighted with recommendations informed by major findings of the study. The chapter also highlighted recommendations for future research.

## APPENDIX 1A: DATA COLLECTION INSTRUMENT

### Instructions

Thank you for agreeing to participate in this study. This questionnaire has five sections: i.e. **A, B, C, D and E**. Please answer all questions 1.1 -1.27 as honestly and as detailed as you can since your responses/answers are vital for this study. Note that, the responses you provide including biographic details will be used for the purposes of this study only.

### Section A: Biographic details

#### 1.1 Gender [tick $\checkmark$ the appropriate box]

- I. Male
- II. Female

#### 1.2 Nationality [tick $\checkmark$ the appropriate box]

- I. South African
- II. Other  please specify.....

#### 1.3 Race [tick $\checkmark$ the appropriate box]

- I. Black
- II. Coloured
- III. Indian
- IV. White

#### 1.4 Ethnicity [tick $\checkmark$ the appropriate box]

- I. Ndebele
- II. Pedi
- III. Sotho
- IV. Swazi
- V. Tsonga
- VI. Tswana
- VII. Venda
- VIII. Xhosa
- IX. Zulu
- X. Other, specify .....

#### 1.5 Age group [tick $\checkmark$ the appropriate box]

- (A) 19-20
- (B) 21-22
- (C) 23 – 24
- (D) 25+

1.5 What are your three major subjects?

**SECTION B OF APPENDIX 1A  
GENERAL KNOWLEDGE OF TERMS ON MULTIMODAL AFFORDANCES**

Contemporary communication uses a variety of semiotic modes/resources to construct different types of texts. New terms and concepts are as a result constantly and rapidly introduced into contemporary communication domain, thus, suggesting a potential textual shift - a typical characteristic feature of the 21<sup>st</sup> century communicative development.

**Instruction**

Decide which term/concept/text type is described by each of the information given. Put a tick next to an appropriate answer.

[√]

1.1 It can be searched, rearranged, condensed, annotated or read aloud by a computer

- |                    |   |   |
|--------------------|---|---|
| A. Digital texts,  | [ | ] |
| B. Hypertext,      | [ | ] |
| C. Hypermedia,     | [ | ] |
| D. Multimodal      | [ | ] |
| E. Monomodal text. | [ | ] |

1.2 It allows extensive cross-referencing between related sections of text and associated graphic material. It is also the electronic text format where; content is interconnected using hyperlinks [√]

- |                    |   |   |
|--------------------|---|---|
| A. Digital texts,  | [ | ] |
| B. Hypertext,      | [ | ] |
| C. Hypermedia,     | [ | ] |
| D. Multimodal      | [ | ] |
| E. Monomodal text. | [ | ] |

1.3 It refers to modes such as text, audio, graphics and video interconnected using hyperlinks. [√]

- |                    |   |   |
|--------------------|---|---|
| A. Digital texts,  | [ | ] |
| B. Hypertext,      | [ | ] |
| C. Hypermedia,     | [ | ] |
| D. Multimodal      | [ | ] |
| E. Monomodal text. | [ | ] |

1.4 A text that combines two or more semiotic systems. Linguistic: vocabulary, structure, grammar of oral/written language; Visual ...

[√]

- |                    |   |   |
|--------------------|---|---|
| A. Digital texts,  | [ | ] |
| B. Hypertext,      | [ | ] |
| C. Hypermedia,     | [ | ] |
| D. Multimodal      | [ | ] |
| E. Monomodal text. | [ | ] |

1.5 Readers explore the emotions, movement, senses and body control to decode meaning [√]

- |                               |   |   |
|-------------------------------|---|---|
| A. Gestural semiotic system   | [ | ] |
| B. Spatial semiotic system    | [ | ] |
| C. Visual semiotic system     | [ | ] |
| D. Spatial semiotic system    | [ | ] |
| E. Linguistic semiotic system | [ | ] |

1.6 To make sense of the text, readers look at the Interaction of all components of the texts, layout and landscape [√]

- |                               |   |   |
|-------------------------------|---|---|
| A. Gestural semiotic system   | [ | ] |
| B. Spatial semiotic system    | [ | ] |
| C. Visual semiotic system     | [ | ] |
| D. Spatial semiotic system    | [ | ] |
| E. Linguistic semiotic system | [ | ] |

1.7 To make sense of the text, readers would look at how colour, perspective, vector, foreground and background were used in the text. [√]

- |                               |   |   |
|-------------------------------|---|---|
| A. Gestural semiotic system   | [ | ] |
| B. Spatial semiotic system    | [ | ] |
| C. Visual semiotic system     | [ | ] |
| D. Spatial semiotic system    | [ | ] |
| E. Linguistic semiotic system | [ | ] |

1.8 To make sense of the text, readers would look at how vocabulary, metaphor, structure were used to construct meaning in a text. [√]

- |                               |   |   |
|-------------------------------|---|---|
| A. Gestural semiotic system   | [ | ] |
| B. Spatial semiotic system    | [ | ] |
| C. Visual semiotic system     | [ | ] |
| D. Spatial semiotic system    | [ | ] |
| E. Linguistic semiotic system | [ | ] |

**SECTION C of appendix 1A**  
**CONTENT ANALYSIS BASED ON THE AFFORDANCES OF SEMIOTIC SYSTEMS**

Refer to the text below and answer questions 1.14-1.17



Text C

1.14 What is the designer's central message in text C?

1.15 Comment briefly on how the text designer used linguistic system (words) and nonlinguistic resources

**Context analysis [symbolic significance]**

1.16 Which literary device(s) is/are used in text C and how they/it reinforce(s) the text central message?

1.17 How significant is the phrase **MOTHER NATURE** in the context of a text?

## SECTION D of appendix 1A

Refer to the text below to answer questions 1.18- 1.24



### Text D

#### CONTEXT AND AUTHOR ANALYSIS

1.18 How were the following semiotic resources used in Text D to reinforce the text's central message?

1.18.1 Typography and Capitalisation

1.18.2 Colours

1.18.3 Images

1.18.4 spatiality and positioning of a text

1.19 Could there be any reason/s why items on the text are placed on different positions: trees on the right and building/factories on the left side of the text?

**If yes, give reason(s) for your answer**

**If no, give reason(s) for your answer**

1.20 Which audience is targeted in Text D?

1.21 What ideals does the producer associate the targeted audience with?

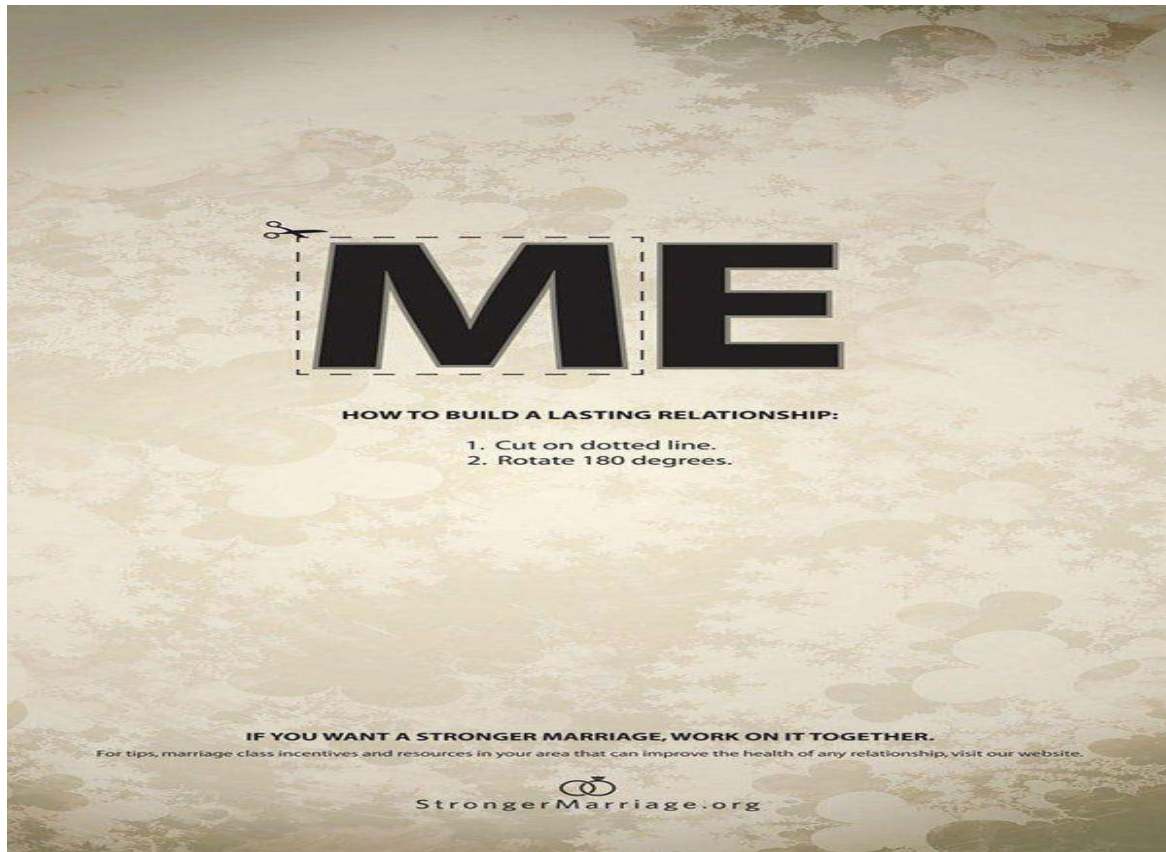
1.22 What was the designer's intention for constructing Text D?

1.23 What message is the text designer intending to convey through the phrase: **'LOADING PLEASE WAIT ...'**

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## SECTION E of appendix 1A

Refer to the text below to answer questions 1.25-1.27 A-D



**Text E**

### **CONTENT, AUTHOR ANALYSIS**

1.24 Identify semiotic systems used in text E and associated semiotic resources.

1.25 What central message is the text designer trying to convey?

1.26 Explain how the following elements of semiotic designs were used to reinforce the text

**(B) Typography, Font size and type**

**(C) Symbols, visuals and images**

(D) Could there be any reason(s) for placing the word 'ME' on the centre of text?

Yes? Give reason for your answer

No? Give reason for your answer

**Thank You for your participation**



## APPENDIX 2A: UHDC APPROVAL LETTER

RESEARCH AND INNOVATION  
OFFICE OF THE DIRECTOR

NAME OF RESEARCHER/INVESTIGATOR:

**Mr TE Sikitime**

Student No:

**9505550**

PROJECT TITLE: **Multimodal affordances and requisite interpretative skills: A case study on students with distinct indigenous, cultural and linguistic background in a South African rural based university.**

PROJECT NO: **SHSS/18/ENG/03/1204**

SUPERVISORS/ CO-RESEARCHERS/ CO-INVESTIGATORS

NAME	INSTITUTION & DEPARTMENT	ROLE
Prof EK Klu	University of Venda	Promoter
Dr MN Lambani	University of Venda	Co - Promoter
Dr MJ Maluleke	University of Venda	Co - Promoter
Mr TE Sikitime	University of Venda	Investigator – Student

ISSUED BY:

**UNIVERSITY OF VENDA, RESEARCH ETHICS COMMITTEE**

Date Considered: April 2018

Decision by Ethical Clearance Committee Granted

Signature of Chairperson of the Committee: 

Name of the Chairperson of the Committee: Senior Prof. **G.E. Ekosse**



University of Venda

PRIVATE BAG X5050, THOHYANDOU, 0950, LIMPOPO PROVINCE, SOUTH AFRICA  
TELEPHONE (015) 962 8504/8313 FAX (015) 962 9060

*"A quality driven financially sustainable, rural-based Comprehensive University"*

UNIVERSITY OF VENDA DIRECTOR RESEARCH AND INNOVATION 2018 -04- 12 Private Bag X5050 Thohoyandou 0950
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## APPENDIX 2B: APPROVAL LETTER

### UNIVERSITY OF VENDA

#### OFFICE OF THE DEPUTY VICE-CHANCELLOR: ACADEMIC

TO : MR/MS T.E SIKITIME  
SCHOOL OF HUMAN AND SOCIAL SCIENCES

FROM: PROF J.E. CRAFFORD  
DEPUTY VICE-CHANCELLOR: ACADEMIC

DATE : 23 JANUARY 2018

#### DECISIONS TAKEN BY UHDC OF 23<sup>RD</sup> JANUARY 2018

Application for approval of Thesis research proposal in Human and Social Sciences: T.E Sikitime (9505550)

Topic: "Multimodal affordances and requisite interpretative skills: A Case study of students in a South African university."

Promoter	UNIVEN	Prof. E.K Klu
Co-promoters	UNIVEN	Dr. M.N Lambani
	UNIVEN	Dr. M.J Maluleke

**UHDC approved Thesis proposal**



Prof J.E. CRAFFORD  
DEPUTY VICE-CHANCELLOR: ACADEMIC

## APPENDIX 3A: INFORMED CONSENT

Dear Participant

### RE: Request for your participation in a study

I am a PhD student in English at the University of Venda. I am involved in a research project titled: **Multimodal affordances and requisite interpretative skills of level 300 Media Studies students**

I am conducting this study under the supervision of Professor EK Klu, and co-promoters DR MN Lambani and DR MJ Maluleke. The aim of the study is to explore the communicative affordances of selected multimodal texts with special focus on students' interpretative perspectives or approaches applied by University of Venda Media Studies Students. It includes exploring the visual syntax, the semantic attributes of semiotic resources (linguistic and non-linguistic) and how these resources are used to construct specific thoughts, meaning and ideologies.

Your cooperation in answering questions given on multimodality and meaning making will be highly valued. The duration to answer the given questions will be within 1 hour – 2hours. All ethical considerations including voluntary participation, informed consent, and the principle of no harm, respect to privacy and confidentiality will be upheld entirely in this study.

Your participation in this study will enlighten the academic fraternity (students and academics) as well as entities responsible for information dissemination on requisite skills and knowledge around multi-literacies, critical literacy, cultural literacy, media literacy, functional literacy and discipline specific literacy.

In view of the above, you are requested to participate in this research project.

**2. Participant:** I..... give my consent to participate in the study on **multimodal affordances and requisite interpretative skills of level 300 Media Studies students**.

It has been explained to me that my name and dignity as a respondent will be preserved by observing ethical standards during the research process. As a respondent in this research project, I am required to observe the following ethical standards:

- My name and that of my colleagues will not be mentioned during discussions;
- Participation is voluntary and there is freedom to withdraw without any penalty;
- Raw materials will be kept under lock to ensure confidentiality;
- Information regarding the responses will only be accessible to the promoter and the independent coder;
- Field notes will be destroyed as soon as the project is completed;
- A summary of the research project will be available to me if requested.

Respondent's

signature.....Date.....

Researcher's

signature.....Date.....

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