

**TEACHING HIGHER ORDER THINKING SKILLS IN THE ENGLISH FIRST  
ADDITIONAL LANGUAGE LEARNING CLASSROOM: A CASE OF FIVE  
INTERMEDIATE CLASSROOMS IN MANKWENG CIRCUIT**

by

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**MINI-DISSERTATION**

Submitted in partial fulfilment of the requirements for the degree of

**MASTER OF ARTS**

in

**ENGLISH STUDIES**

in the

**FACULTY OF HUMANITIES**

**(School of Languages and Communication Studies)**

at the

**UNIVERSITY OF LIMPOPO**

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**AUGUST 2018**

## DECLARATION

I declare that my dissertation entitled **TEACHING HIGHER ORDER THINKING SKILLS IN THE ENGLISH FIRST ADDITIONAL LANGUAGE LEARNING CLASSROOM: A CASE OF FIVE INTERMEDIATE CLASSROOMS IN MANKWENG CIRCUIT** hereby submitted to the University of Limpopo, for the degree of Master of Arts in English studies has not previously been submitted by me to this or any other university; and that it is my work and all the sources that I have used or quoted have been indicated and acknowledged.

**Peter Magwele**

.....

**Signature**

**15 April 2018**

## **DEDICATION**

This research study is dedicated to my late warm-hearted father (France Magwele) who passed on in 2005 and my lovely late sister (Lina Phasa) who passed on in 2009. Your authentic love and care you showed to me will forever have a special place in the deep recesses of my soul.

## **ACKNOWLEDGEMENTS**

I wish to express my sincere appreciation and gratitude to everyone who supported me and ensured that this study was possible. I particularly want to acknowledge the following people:

I am eternally grateful to my Lord Jesus Christ, for ungrudgingly and bountifully providing me with enough strength, patience and knowledge; most of all his grace without which nothing would have been possible.

My promoter, Dr R.V. McCabe: for her pivotal role in my completion of the study through her keen interest, her expert guidance and advice, her kindly and constructive criticism, her profound and intellectual abilities that gave the study scholarly shape and her unwavering encouragement.

My mother whose ultimate desire is to see my success in my academic endeavours; her understanding and confidence in me serve as an unswerving pillar of strength.

All my former teachers for their invaluable contribution that moulded and shaped me into the person I am today. I am a sum total of all your time which you willingly sacrificed to teach me.

## ABSTRACT

There is a universal consensus among educationalists and cognitive development theorists that integration of higher order thinking (HOT) in language teaching has far-reaching positive implications in learners' future. Their extensive body of research clearly indicates the interrelationship between language and thinking. It shows that to develop well-rounded learners who can later deal capably with varying demands of the 21<sup>st</sup> century, teaching them linguistic and cognitive skills concurrently is a prerequisite. However, there is still a dearth of language teaching classroom-based data to be collected to ascertain which language pedagogic practices promote thinking or not. Hence, a qualitative exploratory case study was conducted to address this gap. The study was undertaken in five intermediate English FAL classes in Mankweng circuit. The aim was to establish whether HOT is encouraged in the intermediate English FAL classes. The study used two data analysis techniques: firstly, Tesch's inductive coding technique was used to analyse semi-structured interview results sourced from five English FAL teachers. They were sampled for the study to assess their conceptualisation of HOT and its application in their language classes. Contrastingly, Anderson and Krathwohl's (2001) framework was used to analyse one Grade 4 English workbook. To determine if its exercises' instructional *verbs* were promoting HOT or not; to check if the *questions* in its exercises were equally distributed over all the six levels of Bloom's revised Taxonomy of the cognitive domain; and to evaluate if there was an incremental introduction of HOTs in its exercises through the year. The results revealed the following: the five teachers could not conceptualise HOT and showed poor knowledge of how to teach it in their classes. The instructional *verbs* did not comprehensively encourage HOT; those which did were only pitched at the third level of thinking i.e. *apply*; most of the *questions* were in favour of low order thinking and there was little incremental introduction of the three top levels of Bloom's revised taxonomy in Grade 4 English FAL workbook specifically *analyse, evaluate and create/design*.

**Key words:** High order thinking skills, cognitive domain, high order thinking and Bloom's revised taxonomy.

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## ACRONYMS AND ABBREVIATIONS

<b>ANA</b>	Annual National Assessment
<b>CAPS</b>	Curriculum and Assessment Policy Statement
<b>CERT</b>	The Centre for Innovation in Research and Teaching
<b>DBE</b>	Department of Basic Education
<b>ESL</b>	English Second Language
<b>FAL</b>	First Additional Language
<b>FP</b>	Fundamental Pedagogics
<b>HOT</b>	High Order Thinking
<b>HOTS</b>	Higher Order Thinking Skills
<b>L2</b>	Second Language
<b>LOT</b>	Lower Order Thinking
<b>LOTS</b>	Lower Order Thinking Skills
<b>NEEDU</b>	The National Education Evaluation and Development Unit
<b>PEI</b>	President's Education Initiative
<b>POV</b>	Point of View
<b>SACMEQ</b>	South African Consortium for Monitoring Education Quality
<b>SCT</b>	Socio-Cultural Theory
<b>SADTU</b>	South African Democratic Teachers Union

<b>SLL</b>	Second Language Learning
<b>TREC</b>	Turfloop Research and Ethics Committee
<b>UNISA</b>	The University of South Africa
<b>US</b>	United States
<b>USA</b>	United States of America
<b>ZPD</b>	Zone of proximal development

## **CHAPTER 1: INTRODUCTION AND BACKGROUND TO THE STUDY**

The aim of the study was to investigate the teaching of higher order thinking skills (HOTs) in five intermediate English First Additional Language (FAL) classes in Mankweng Circuit. This chapter introduces the background to the study, research problem, literature review, theoretical framework, the purpose of the study, methodology and methods of data collection. Equally, ethical considerations, the significance of the study, definition of terms and the outline of the chapters will be provided.

### **1.1 BACKGROUND TO THE STUDY**

High order thinking (HOT) as a concept relates to top levels or categories of Bloom's Taxonomy of the cognitive domain (Bloom, 1956). It follows that a concept 'higher order thinking skills' (HOTs) refer to three categories of Bloom's Taxonomy of the cognitive domain specifically analysis, synthesis and evaluation (Bloom, 1956). Furthermore, Bloom's taxonomy of 1956 and the more recent modifications, especially by Anderson and Kratchwohl in (2001) have been adapted in the field of teaching for classroom use as a planning tool to move students' learning away from mere lower order thinking (LOT) such as superficial understanding and rote memory. In other words, it was introduced with the aim to engender a shift from LOT to HOT. It continues to be one of the most universally applied models for that end (Pohl, 2000). Furthermore, Brookhart (2010) states that definitions of HOT fall into three classifications or categories: firstly, there are those that define HOT in terms of *critical thinking*, secondly, those that define HOT in terms of *transfer*, and thirdly those that define it in terms of *problem solving*. In general, measures of HOT include all cognitive tasks that are beyond the low categories of thinking in Bloom's Taxonomy of the cognitive domain, namely, knowledge, comprehension and application (Bloom, 1956). Therefore, in broad terms, HOTs can be viewed as skills that are required to perform these tasks. However, the move to teach HOTs in the majority of classrooms has been met with a host of impediments worldwide. In this regard, Li (2010) points out that HOTs were emphasised in curricula across cultures, such as, British Columbia's Ministry of Education 2010 and Curriculum Development Council 2007. He goes on to say that, these efforts were however inhibited by an examination-driven and teacher-centred educational culture, which does

not encourage the infusion of HOTS in learners. Equally, Vandermensbrugge (2004) observes that a HOT approach, like critical thinking in curricula, is more difficult to apply in many Asian classrooms because the teachers and learners are more accustomed to the transmissive, knowledge-based and passive model of learning. He further remarks that for Asian learners to acquire and practise this crucial skill, more clear practice guidelines must be put in place to realise that end. Certainly, this suggests that the effective implementation of HOTS in classroom practices still encounters huge challenges globally.

In South Africa at both the national and local levels, there are key factors that influence teachers' pedagogic practices and the way they are applied in classrooms. The National Education Evaluation and Development Unit (NEEDU) (2012) points out that the lack of the teaching of HOTS in many classrooms is mostly from teachers' poor pedagogic content knowledge almost at every level of the system, which is markedly far more common. Macdonald (1991) cited in Taylor and Vinjevoold (1999:134) concurs that...the limited pedagogic content knowledge inhibits teachers in conveying the attitudinal skills such as critical reflection, respect for evidence, curiosity and so on. They further contend that these attitudinal skills are indispensable in developing higher cognitive skills like deriving hypotheses, conducting investigations and asking questions.

Moreover, the findings of the study undertaken by the South African Consortium for Monitoring Education Quality (SACMEQ) confirm that South African teachers have a weak comprehension of higher cognitive skills (DBE, 2010). In the study, the teachers took a language test consisting of comprehension exercises on 11 distinct texts, which were ranging between descriptions and complex passages that were discursive. Though South African teachers in the SACMEQ study did fairly well on questions that were more simple such as retrieval information clearly stated in the text (scoring an average of 75,1%), there was as a dramatic drop in scores as soon as the higher cognitive functions of interpretation (36,6%), inference (55,2%), and evaluation (39,7%) were invoked. This strongly suggests that most of the South African teachers are only equipped to teach LOTs as opposed to teaching HOTS.

Therefore, it is against this backdrop that it is necessary for an educational research study to evaluate an array of academic pedagogic practices with respect to the teaching of HOTS in English second language classrooms. Indeed, this type of a study might provide new insights into classroom practices and suggest possible measures that could result in quality pedagogic practices in classroom settings, particularly the English Second Language (ESL) classrooms.

## **1. 2 RESEARCH PROBLEM**

Taylor and Vinjevold (1999:143) aver that the research into classroom practices in South Africa indicates that “Lessons are generally characterised by an absence of activities which promote HOTS such as investigation, understanding relationships and curiosity.” Similarly, Howie, Venter, van Staden, Zimmerman, Long, Scherman and Archer (2007) confirm this position stating that within the South African education system, syllabuses, forms of evaluation and methods of teaching do not encourage the development of critical, logical, analytical and problem-solving skills, which are HOTS. They further remark that paucities regarding HOT abilities, including among other things language abilities and critical thinking skills, are apparent in this country’s schools. This strongly implies that teaching and learning in many classrooms in South Africa takes place at a far lower cognitive level.

It is implicit that a need exists for educational research to evaluate whether the teaching of English FAL fosters HOT or not. Such research will enable the assessment of how the teaching of HOT instruction or the lack thereof in the intermediate phase reflects the learners’ cognitive abilities to comprehend and apply abstract concepts in the later stage of their academic endeavours. It also raises the question whether emphasising HOT in the ESL classroom is pertinent.

## **1.3 LITERATURE REVIEW**

### **1.3.1 INTRODUCTION**

The literature was organised to review the following: theories that guided this study, specifically fundamental pedagogics and social constructivism, to will define and frame

HOTs and HOTS; to examine both the international and local (South African) state on the teaching of HOTS. Likewise, to explore research into both international and national classrooms in the teaching of HOTS practices.

### **1.3.2 THEORETICAL FRAMEWORK**

Fundamental pedagogics and social constructivism were both theoretical frameworks that provided the lens through which the study was both contextualised and conceptualised.

#### **1.3.2.1 Fundamental Pedagogics (FP)**

Taylor and Vinjevold (1999:132) hypothesise that Fundamental Pedagogics is a philosophy or theory of education based on premises which can be interpreted as authoritarian (for instance, the teacher as knowing adult leads the child to maturity). In addition, Enslin (1990:83) concurs that FP justified authoritarian practices and perceived teachers as only those with the knowledge whereas learners were viewed as only docile recipients of the knowledge. This implies that this philosophy of education supports a teacher-centred approach, which does not promote HOTS (Taylor & Vinjevold,1999). It is clear that FP, as an educational theory, is not applicable to develop HOTS in learners.

#### **1.3.2.2 Social Constructivism (SCT)**

Social constructivism also known as socio-cultural theory (SCT) is a social theory of learning that views learning as a mediated process in which individuals develop as they interact with their environment (Vygotsky, 1962). Vygotsky further states that tools such as culture and language mediate such interaction. In addition, an important SCT concept for Second Language Acquisition (SLA) is the zone of proximal development (ZPD) (Vygotsky, 1978). According to Vygotsky, ZPD refers to the distance between what learners can do on their own and what they can do with the assistance of an expert. It is clear that SCT as a learning theory can be used by English FAL teachers to develop HOTS in their learners.



### **1.3.3 DEFINING AND FRAMING HOT AND HOTS**

Higher-order thinking refers to thinking that takes place in the higher categories of the hierarchy or domain of cognitive processing (Ramos, Dolipas & Villamor, 2013). The well-established hierarchical arrangement of this type in the teaching field, according to Ramos et al. (2013) is Bloom's Taxonomy, which lists a continuum of thinking skills from knowledge-level thinking to evaluation-level of thinking. On the one hand, Fisher (2012) posits that HOTS *inter alia* include such skills as analysis, problem solving and critical thinking. She further states that these skills are a distinct contrast to LOTs such as recalling and understanding because they equip learners with the ability to apply existing knowledge in novel situations.

### **1.3.4 INTERNATIONAL STATE ON THE TEACHING OF HOTS**

Teaching higher order thinking skills is currently at the centre of educational attention in a number of countries. Actually, for the last thirty years, there has been a mounting educational interest in thinking and new research pathways that seek to provide insights into the teaching of HOT in the classroom (Marzno, 1991; Resnick & Klopfer, 1989). Simister (2007) also holds the same view that the past few years have seen increasing interests in the field of learning and thinking skills. In addition, Simister (2007) argues that "there is now a vast and often bewildering tangle of ideas and materials being published within the field of thinking..." Collins and Mangieri (1992) posit that the need to develop better thinking among America's school children has been well documented. This implies that the awareness about the need to teach HOTS is on the rise within the teaching fraternity across the world.

#### **1.3.4.1 Research into International Classroom Practices**

Research into classroom practices indicates that an overwhelming emphasis on the lower-order knowledge (e.g. by rote learning) and cognitive skills to the exclusion of HOT in numerous schools is an epidemic phenomenon across nations (Brophy, 1992). In effect, the findings in a study in the Preliminary Report of the Malaysia Education Blueprint 2013-2025 confirms this as it found that a great part of the classroom lessons

does not adequately engage learners in constructive thinking. The Malaysian study found that many teachers depended on lecture format and the learning focus was mostly directed at achieving superficial understanding or retrieval of information rather than encouraging HOTS (Malaysia MOE, 2012). Certainly, this strongly suggests that the predominance of LOTS over HOTS in countless classrooms is a worldwide occurrence.

#### **1.3.4.2 The State on the Teaching of HOTS in South Africa**

South Africa is not immune to the paucity of the teaching of HOTS in pedagogic spaces. Actually, there is a broad consensus that teaching and learning in the majority of South African schools leave much to be desired (Taylor & Vinjevold, 1999). Taylor and Vinjevold (1999) further remark that the problems *inter alia* include pupil passivity, rote-learning, teacher-centeredness, which are associated with LOTS. Still, the President's Education Initiative (PEI) (1994) researchers indicate that both the structure of lessons and the content do not encourage the incremental expansion of concepts. By implication, the teaching of LOTS is more dominant than HOTS in many South African schools.

### **1.4 PURPOSE OF THE STUDY**

#### **1.4.1 Aim**

The aim of the study was to establish whether HOTS is encouraged in the intermediate English First Additional Language classes in Mankweng circuit.

#### **1.4.2 Objectives of Study**

To achieve this aim, the following objectives were set for this study:

- To assess the teachers' views and their conceptualisation of HOTS and how they view its application in their classroom practices.
- To find out if the instructional verbs in the Grade 4 English FAL workbook promote HOTS.

- To check if the questions in the exercises of Grade 4 English Workbook were pitched in LOT or HOT categories of Bloom's Taxonomy of cognitive domain.
- To determine any evidence of an incremental introduction of HOTs in the English FAL exercises through the four terms.

## **1.5 RESEARCH METHODOLOGY**

Blaxter, Hughes and Tight (1996) state that qualitative methods are characterised by those aims that explore meaning and produce non-numerical data. Thus, this methodology was applicable to achieve the aim and objectives of this study.

## **1.6 RESEARCH DESIGN**

The research design is a plan or blueprint of how research is to be conducted (Grinnell 1993). It is a road map which the researcher follows, from the study's initial research questions and, ultimately to its conclusions (Lincoln & Guba, 1985). An exploratory case study design was employed in this study.

### **1.6.1 Case Study**

There are different types of case study methods and despite the widespread use of case study methods throughout the social sciences, no consensus has emerged as to the proper definition, either of a case or a case study (Ragin & Becker, 1992; Gerring, 2007). This case study was exploratory and occurred in an educational setting with a small group of educators. It does not profess to provide detailed data but to identify a problem that could be the springboard for a larger study.

### **1.6.2 Population and Sampling**

The target population of the study was intermediate (grade 4) English FAL teachers and the Grade 4 English workbooks. This is the total set from which the individual units of the study were chosen (Strydom, 2002). The research study took place in three primary schools in the Mankweng Circuit, in the Capricorn District, Limpopo Province.

In the case of sampling which is defined as “a procedure that uses a small number of elements of a given population as a basis for drawing conclusions about the whole population” (Neellankavil, 2007:240). The sample design in the study was based on purposive sampling, also known as judgmental sampling. Babbie and Mouton (2010) state that this sampling technique is used when the sample group chosen is based on the researcher’s own knowledge of the population, his own judgment and the purpose of the study. This type of non-probability sampling was in accordance with the exploratory aims of this research study (Babbie & Mouton, 2010).

## **1.7 DATA COLLECTION PROCESS: INSTRUMENTS AND PROCEDURES**

Collection of data is a systematic process in which the researcher collects relevant information to achieve the researcher’s purpose and objectives (Burns & Grove, 2005). In the study, data were collected from two data sources, namely, interviews and one intermediate Grade 4 English FAL workbook.

### **1.7.1 Interviews with Teachers**

The first objective (of the four) of this exploratory case study was to collect qualitative data in an effort to understand the intermediate English FLA teachers’ conceptualisation of HOTS and its application in their classes. In this study, interviews were used to achieve that objective. This is because interviews are specifically useful when the researcher wants to know more than just the facts, but also how the participants feel about, understand, interpret and experience the specific phenomena (Denscombe, 2014). One-on-one face-to-face semi-structured interviews were thus used to learn more about their views, opinions and beliefs of the research topic (Strydom & Bezuidenhout, 2014).

### **1.7.2 The Grade 4 English FAL Workbook**

Additional data were collected from one (1) Grade 4 English Workbook. In the main, the workbook was used to achieve three primary objectives of the study: firstly, to find out if

the instructional verbs in the workbook activities promote HOT. To check if the questions in the exercises of Grade 4 English Workbook were pitched in LOT or HOT categories of Bloom's Taxonomy of cognitive domain. Thirdly, to determine any evidence of an incremental introduction of HOTS in its exercises through the four terms.

## **1.8 DATA ANALYSIS PROCESS**

Cohen, Manion and Morrison (2011) maintain that qualitative data analysis can be described as a process of making sense from research participants' "views and opinions of situations, corresponding patterns, themes, categories and regular similarities. This study used both Tesch's technique and Anderson and Krathwohl's (2001) framework for data analysis.

### **1.8.1 Techniques for analysing data**

In this study, the researcher applied Tesch's (1990) method of coding to analyse the data. This was done by first reading through the text that was transcribed from the recorded interviews. In the process, the researcher also reverted to the sound recordings to confirm other important aspects such as language expression, behavioural incidences, and intonation and to check the text's accuracy. Nuances such as attitude, beliefs, self-confidence and frustration were identified. Thereafter, they were captured for further use in the analysis and interpretation phase.

### **1.8.2 Anderson and Krathwohl's (2001) Framework (A& K framework)**

Anderson and Krathwohl's (2001) framework, which is a modified version of Bloom's Taxonomy (See Chapter 2, Section 2.9: 29), was used for document analysis. This was done after the realisation that Tesch's method for data analysis would not yield sufficient pedagogic insights into the phenomenon that was under investigation in the study. As a result, it was decided that another technique for analysis was needed to enable an insightful and rich analysis of data.

## **1.9 QUALITY CRITERIA**

Plowright (2011: 135) argues that the aim of a research study is to present results that are as true as possible a reflection of the real event. To achieve this in this qualitative study, four of Lincoln and Guba's criteria were utilised, specifically: credibility, transferability, dependability and confirmability, to ensure the quality.

### **1.9.1 Credibility**

Denscombe (2014) posits that the essence of credibility in research is the extent to which a researcher can demonstrate the accuracy of the data collected. In this study, the member checking into the findings was used to increase credibility. The researcher ensured that feedback was gained from the data. This was done by asking the participants themselves to interpret and give their own conclusions on the data that was interpreted by the researcher first. Lincoln and Guba (1985) consider this method that is, member checking into the findings, as 'the most critical technique for establishing credibility.'

### **1.9.2 Transferability**

Schwandt (2015) avers that transferability has to do with the researcher's responsibility for providing readers with adequate information on the case studied. To achieve transferability in this study, the researcher provided a detailed and rich description of the settings studied (See Chapter 3, Section 3.2.2: 36). This was done to provide the reader with adequate information so that they are able to judge the applicability of the findings to other settings that they know (Seale, 1999).

### **1.9.3 Dependability**

Dependability focuses on the process of the inquiry and the inquirer's responsibility for ensuring that the process was logical, traceable and documented (Lincoln & Guba, 1985). In the study, the researcher reported in detail each process in this study, to enable an external researcher to repeat the inquiry and achieve similar results. This has strong potential to ensure that the research findings are consistent and could be

repeated. Another researcher could evaluate the application of HOTS by language teachers in other schools.

#### **1.9.4 Confirmability**

Lincoln and Guba (1985) argue that confirmability is concerned with establishing the fact that data and interpretation of the inquiry were not merely the figments of the inquirer's imagination. In this study the researcher ensured that a clear audit trail was completed throughout the study to demonstrate how each decision about the evaluation of the application of HOTS by teachers and/or workbooks was made. This enabled a judgment about the dependability of procedures employed by the researcher in this study and the extent to which the findings of the study are confirmable.

#### **1.10 SIGNIFICANCE OF THE STUDY**

The study may yield a number of significant consequences. Firstly, it may raise in the English language teaching community an awareness of the need to infuse higher order thinking skills into their learners' writing and learning activities. Secondly, this awareness may help children in secondary school and eventually tertiary education because it will hone their critical thinking and problem-solving skills that is, in turn, likely to contribute to the improvement of their ability to express themselves in problem-solving environments. Equally, it will offer pointers to the South African National Ministry of Education on how to integrate higher level thinking skills in its national curricular efforts. Finally, the study has a strong potential to provide workable alternative pedagogic strategies that will develop higher order thinking in learners in the language and content subject classroom

#### **1.11 ETHICAL CONSIDERATIONS**

In conducting the study, the researcher complied with a number of ethical considerations. Firstly, he ensured that he received the permission from three principals to conduct the study at their schools. He also obtained permission from the circuit managers of the schools at which the study was conducted. Equally, he asked for a

letter of ethical clearance from the University of Limpopo Turfloop Research and Ethics Committee (TREC). He also received a letter of ethical approval from the Department of Basic Education in Limpopo. Furthermore, he received informed consent forms from the participants (teachers) prior involving them in the study.

## **1.12 DEFINITION OF TERMS**

### **1.12.1 Cognitive Domain**

A classification system of six levels: *remembering, understanding, applying, analysing, evaluating* and *creating* (Bloom, 1956).

### **1.12.2 Higher Order Thinking (HOT)**

Thinking that takes place at the higher levels of the hierarchy of cognitive processing (Bloom, 1956).

### **1.12.3 Higher Thinking Skills (HOTS)**

The ability to make judgments and arrive at conclusions about information or ideas through rules or criteria (Bloom, 1956).

### **1.12.4 Questions**

Investigative statements that appear through the units in the English workbooks and call on the student for some level of cognitive functioning to provide answers (Logan, 1985).

### **1.12.5 Lower Level Question**

A question that requires students to respond at the cognitive level of *remembering* and *understanding* (Bloom, 1956).

### **1.12.6 Higher Level Question**

A question that requires students to respond at the cognitive level of *applying, analysing, evaluating* and *creating* (Bloom, 1956).



## 1.13 CHAPTER OUTLINE

In **Chapter 1**, provides introduction and background to the study and it also presents brief discussions of key topics of the study. Those are: the research problem, literature review, theoretical framework, the purpose of the study, methodology, and methods of data collection. Equally, ethical considerations, the significance of the study, definition of terms and the outline of the chapters are discussed in this Chapter.

**Chapter 2** provides a review of the literature and the theoretical frameworks that guided the study. Equally, all other aspects are scrutinised under the definition and within a framework of HOTS and HOT.

**Chapter 3** describes the research design and methodology used in the study.

**Chapter 4** consists of the data analysis, presentation and interpretation of the findings. The data analysis and interpretation are presented by means of tables.

**Chapter 5** discusses the findings, conclusions, and recommendations of this study. It summarises and discusses the main points. The chapter concludes with recommendations for potential future research on the topic of HOT

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 INTRODUCTION**

The literature review in the study drew heavily upon a number of researchers' works and their findings to assess connections, inconsistencies and gaps in reference to the teaching of HOTS in an English FAL classroom setting. The literature was organised to review the following: it will firstly discuss theories that guided this study, specifically fundamental pedagogics and social constructivism. Furthermore, it will define and frame HOTS and HOT; both the international and local (South African) state on the teaching of HOTS will be examined. Likewise, research into both international and national classrooms in the teaching of HOTS practices, will be explored under both the international and local state of the teaching of HOTS.

In addition, the general curricular aims in South Africa since 1994, the significance of the teaching of HOTS, controversies on the teaching of HOTS and three approaches for teaching thinking will be discussed. Moreover, the importance of language in teaching HOTS, the teaching of HOTS in Second Language Learning (SLL) and why it is obligatory to go from basic to sophisticated concepts will also be scrutinised. Additionally, categories of HOTS specifically, the critical thinking and transfer thereof will be examined. Finally, the six levels of Bloom's revised taxonomy of cognitive domain namely, *remember*, *understand*, *apply*, *analyse*, *evaluate* and *create/design* will be discussed.

### **2.2 THEORETICAL FRAMEWORK**

Fundamental pedagogics and social constructivism were both theoretical frameworks that provided the lens through which the study was both contextualised and

conceptualised. The rationale behind the use of these two educational theories was their opposing epistemological assumptions or stance regarding teaching and learning. Fundamental pedagogics was pertinent in bringing to light whether the teachers (who were sampled for the study) were informed by approaches of old pedagogics in their teaching of English as FAL. Old pedagogics such as teacher-centred, teacher-directed, transmission-based grammar-oriented approaches or methods such as form-based instruction and so on, do not develop HOT in learners as they focus mainly on transferring knowledge and facts, which tend to be easily forgotten (Harpaz & Lefstein, 2000). On the other hand, social constructivism shed light on whether the teachers were guided by the approaches of new pedagogics like student-centered, dialogical/discursive, student-directed, heuristic (which encourages learners to learn independently through their own investigation) and suchlike. These approaches promote the development of HOT habits in learners such as critical thinking, problem-solving and creative thinking, which often persist in them for their whole lives (Harpaz & Lefstein, 2002).

### **2.2.1 Fundamental Pedagogics**

Taylor and Vinjevold (1999:132) hypothesise that Fundamental Pedagogics (FP) is a philosophy or theory of education based on premises which can be interpreted as authoritarian (for instance, the teacher as knowing adult leads the child to maturity), which was the only doctrine of teaching in black schools during the apartheid era in South Africa. In addition, Enslin (1990:83) concurs that fundamental pedagogics justified authoritarian practices and perceived teachers as only those with the knowledge whereas learners were viewed as only docile recipients of the knowledge. This implies that this philosophy of education supports a teacher-centered approach, which does not promote HOTS (Taylor & Vinjevold, 1999). Chisholm (1992) confirms this by stating that the values and techniques of fundamental pedagogics impede the development of innovative and critical teaching strategies, which are indispensable for the teaching of HOT. It is clear that fundamental pedagogics, as educational theory, is not applicable to develop HOTS in learners.

In addition, FP has its roots in the behaviourist paradigm of learning. Ertmer and Newby (1993) argue that there is general agreement that behavioural principles cannot provide an adequate explanation to the acquisition of HOTS or those that involve a greater depth of processing, for instance, language development, problem-solving, and inference generating, critical thinking. It is clear that Fundamental Pedagogics take the direct transmission view of a student learning (this is a behaviourist paradigm of learning) where the role of the teacher is to communicate knowledge in a structured and clear way (Moseley, Baumfield, Higgins, Lin, Miller, Newton, Robson, Elliott & Gregson, 2004). They also remark that this view requires the teacher to give learners clear and resolvable problems and explain correct solutions. By implication, this pedagogic philosophy will not encourage and produce HOTS in students.

### **2.2.2 Social Constructivism**

Social constructivism also known as socio-cultural theory (SCT) is a social theory of learning that views learning as a mediated process in which individuals develop as they interact with their environment (Vygotsky, 1962). Vygotsky further states that tools such as culture and language mediate such interaction. Indeed, SCT could be an effective teaching philosophy if it serves as a guide to the English FAL teachers in the promotion of HOTS in the learners. In addition, an important SCT concept for Second Language Acquisition (SLA) is the zone of proximal development (ZPD) (Vygotsky, 1978). According to Vygotsky, ZPD refers to the distance between what learners can do on their own and what they can do with the assistance of an expert. This facilitates the learning of the content through the process of creative construction, thereby increases the opportunity for English language learners to engage the content in a more meaningful way. This also helps the teachers to deliver optimal language input and allow for maximum learner output by utilising HOTS and questioning skills (Dutro & Moran, 2003).

Moreover, the applicability of SCT in the study was even more distinct when juxtaposed with another strand of constructivism i.e. cognitive constructivism. This was essential in seeing that there are two main types of constructivism that inform teachers' teaching

practices. First of these is individual or cognitive constructivism founded on Piaget's (1952) theory, and the second is SCT based on Vygotsky (1962)'s theory (Powell & Cordy, 2009). They further point out that the parallels between the two theories include the teaching methods that are an inquiry into nature and learners who create concepts by building on prior knowledge that is relevant and meaningful. However, they also indicate that the dissimilarities between the two theories include language development theory where cognitive constructivism holds that thinking precedes language whereas SCT claims that language precedes thinking. In this study, SCT was given greater preference to cognitive constructivism because of its central argument that language precedes thinking. In addition, it was appropriate since it views language as the basis of the conceptual ecology of an individual and as an instrumental vehicle to mediate HOT (Vygotsky, 1978). This claim was more suitable for achieving the aim of the study, *which was to find out whether the intermediate English FAL teachers promote the teaching of HOT in their classes in the Mankweng circuit.*

### **2.3 DEFINING AND FRAMING HOT AND HOTS**

Higher-order thinking refers to thinking that takes place in the higher categories of the hierarchy or domain of cognitive processing (Ramos, Dolipas & Villamor, 2013). The well-established hierarchical arrangement of this type in the teaching field, according to Ramos et al. (2013) is Bloom's Taxonomy, which lists a continuum of thinking skills from knowledge-level thinking to evaluation-level of thinking. Equally, Fisher (2012) posits that HOTs *inter alia* include such skills as analysis, problem-solving and critical thinking. She further states that these skills are a distinct contrast to LOTs such as recalling and understanding because they equip learners with the ability to apply existing knowledge in novel situations. Furthermore, Newmann (1990) maintains that HOTs refer to the analysis, manipulation and interpretation of information in answering questions that the usual application of previously learned knowledge cannot resolve. King, Goodson, and Rohani (2013) concur that HOTs include logical, critical, reflective, creative and metacognitive thinking, which are activated when people experience unfamiliar questions, uncertainties, dilemmas and problems. They also contend that success in applying these skills requires decisions, performances, explanations and products that

are valid within the context of available experience and knowledge; and also, that they encourage sustained growth and development in these as well as other intellectual or cognitive skills.

However, Beck and Dole (1992) note that when considering higher order thinking (HOT), which refers to a complex process that involves, elaborating, adding complexity and going beyond the given (Collins & Mangieri, 1992), it is essential to point out that the following terms: thinking, higher order thinking, problem-solving, reasoning and critical thinking are difficult to distinguish from each other. The same view is also encapsulated by Resnick (1987) when stating that thinking skills resist the precise forms of definitions associated with the setting of specialised objectives of schooling. Green (2014) is of the same opinion that there is no single scientific definition of higher cognitive abilities (HOT). She continues to say that like many other important concepts it has fuzzy edges and can be approached in different ways. Likewise, Hughes (2014) concurs that HOT as a concept often defies simple definition.

Nonetheless, regardless of the apparent absence of a universally acknowledged definition of the concept HOT, Resnick (1987) argues that it is relatively easy to list some key features of higher order thinking. He further contends that when this is done it results in a strong awareness that, although HOT cannot be defined with precision, it can be recognised when it occurs. By implication, HOT is not a rigid and inflexible quality but a high-level hierarchy of cognitive processes with distinguishable components or features. It then follows that HOTs, which are a reflection of HOT, can largely be traced and discretely measured in students in various learning contexts. This also strongly suggests that there could be frameworks for teaching HOTs. Perkins (1981) refers to such frameworks as representations intended to guide the process of thought, supporting, organising and catalysing that process, this may be verbal, imagistic or kinesthetic. The examples of those are the Quellmalz Framework of Thinking Skills (Ramos, Dolipas & Villamor, 2013), Biggs and Collis's SOLO taxonomy, Paul's model of critical thinking, etcetera (Moseley et al., 2004).

## **2.4 INTERNATIONAL STATE ON THE TEACHING OF HOTs**

Teaching higher order thinking skills is currently at the centre of educational attention in a number of countries. Actually, for the last thirty years, there has been a mounting educational interest in thinking and new research pathways that seek to provide insights into the teaching of HOT in the classroom (Marzano, 1991; Resnick & Klopfer, 1989). Simister (2007) also holds the same view that the past few years have seen increasing interests in the field of learning and thinking skills. Trickey and Topping (2004) confirm this by stating that curricular specifications in many countries increasingly show weakening focus on content knowledge and growing attention on transferable skills like creative and critical thinking (which are HOTs). They also point out that the revised Northern Ireland Curriculum is a classic example of that. Zohar, Degani and Vaaknin (2001) concur that there is a drive for teaching for understanding and HOT that is gaining momentum in our schools.

In addition, Simister (2007) is of the view that “there is now a vast and often bewildering tangle of ideas and materials being published within the field of thinking...” Collins and Mangieri (1992) posit that the need to develop better thinking among America’s school children has been well documented. Similarly, in Australia’s school systems there is a growing focus on HOTs (Forster, 2004). She goes on to say that, a perfect example is Tasmania’s curriculum that is structured around five ‘essential learnings’, which are also labelled across five discipline constructs. These ‘learnings’, among other things, are planned to produce the lifelong outcomes of inquiring and reflective individuals who are self-directed, ethical, world contributors who are also responsible citizens (Forster, 2004). These are patent characteristics of HOT, which implies that the awareness about the need to teach HOTs is on the rise within the teaching fraternity across the world.

### **2.4.1 Research into International Classroom Practices**

Research into classroom practices indicates that an overwhelming emphasis on the lower-order knowledge (e.g. by rote learning) and cognitive skills to the exclusion of HOT in numerous schools is an epidemic phenomenon across nations (Brophy, 1992).

In effect, the findings in a study in the Preliminary Report of the Malaysia Education Blueprint 2013-2025 confirms this as it found that a great part of the classroom lessons do not adequately engage learners in constructive thinking. The Malaysian study found that many teachers depended on lecture format and the learning focus was mostly directed at achieving superficial understanding or retrieval of information rather than encouraging HOT (Malaysia MOE, 2012). Certainly, this strongly suggests that the predominance of LOTs over HOTs in countless classrooms is a worldwide occurrence. Here again Cohen and Spillane (1992) maintain that the goal (in the knowledge domain) is that all learners should gain high-level content knowledge and problem-solving skills of higher cognitive-levels, which necessitate sophistication and depth in teachers' comprehension of academic subjects. They go on to say that these capabilities are far beyond most American teachers. Certainly, this strongly suggests that the predominance of LOTs over HOTs in countless classrooms is a worldwide occurrence. The same, in the case of the United States (US), McGrane and Sternberg (1992) posit that a great number of reports from various researchers and committees explicitly indicate that the United States of America (USA)'s children have poor and lower thinking skills and that the schools are doing little to teach learners to think. It is clear that numerous calls that were made over the past 100 years ago, for teaching thinking, though this may sound rather archaic, are still relevant today (Resnick,1987).

This is because in many classrooms worldwide today, students are not encouraged to question what they see, or read or hear; they are not equipped with thinking skills to challenge others' thinking. On the contrary, they do not expect their own thinking to be challenged by others (Burke and Williams, 2008). Du (2011) finds that in the case of China, critical thinking (which is a dimension of HOTs) as a crucial capability for academic study has not yet been fully recognised or effectively taught. Critical thinking is a skill, which also needs to be taught in the language classroom, not only in the content subject classroom. This is mainly on the part of language teachers' poor grasp of critical thinking, as well as insufficient empirical studies related to the integration of critical thinking in language education (Brumfit, Myles, Mitchell, Johnston & Ford, 2005). This implies that the awareness of the need to teach HOTs has not yet fully translated



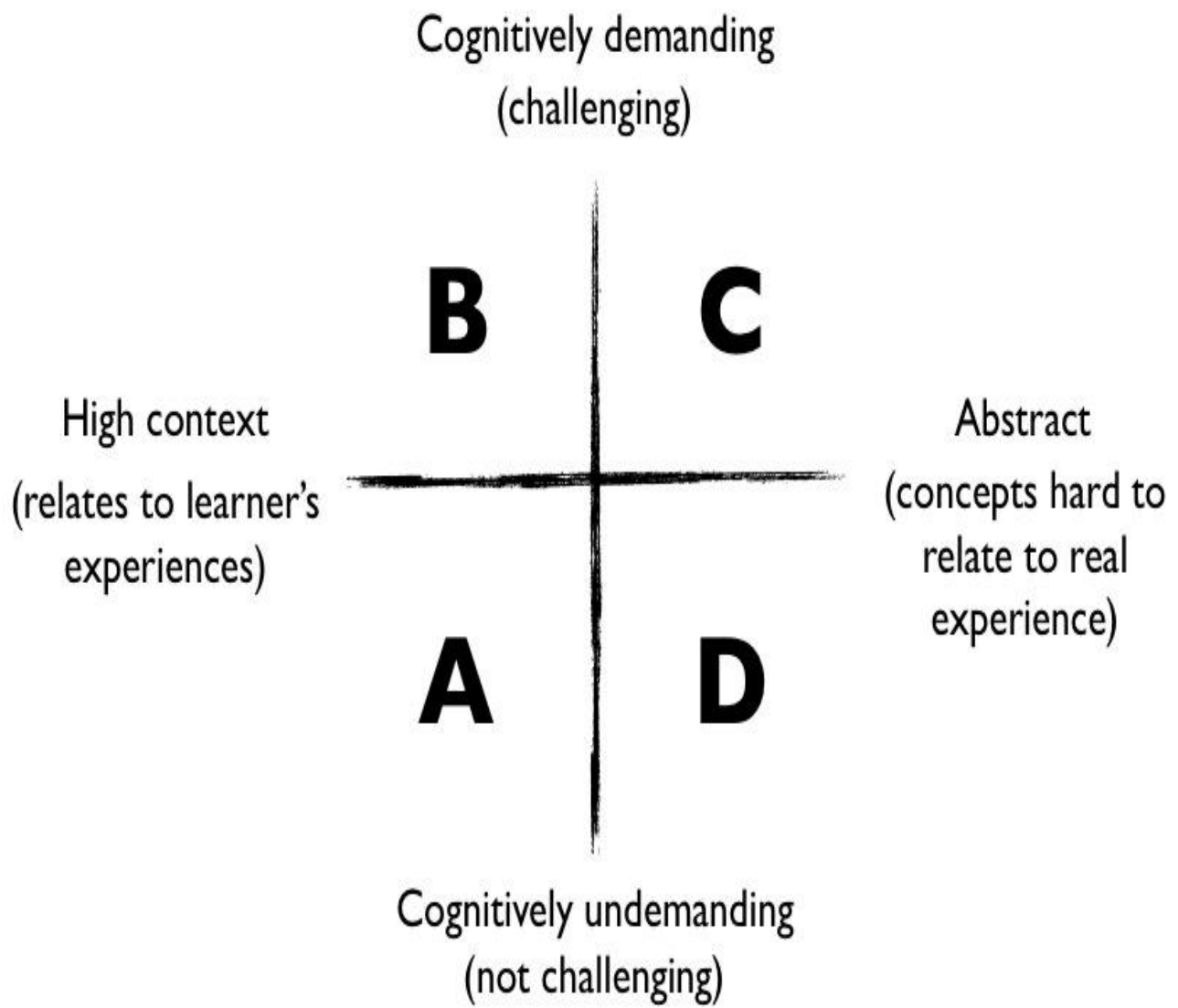
into actual day-to-day classroom practices of the content subject, not to mention the language classroom.

#### **2.4.2 The State on the Teaching of HOTs in South Africa**

South Africa is not immune to the paucity of the teaching of HOTs in pedagogic spaces. Actually, there is a broad consensus that teaching and learning in the majority of South African schools leave much to be desired (Taylor & Vinjevold, 1999). Taylor and Vinjevold (1999) further remark that the problems *inter alia* include pupil passivity, rote-learning, teacher-centeredness, which are associated with LOTs. Still, the President's Education Initiative (PEI) (1994) researchers indicate that both the structure of lessons and the content do not encourage the incremental expansion of concepts. They also state that in many classrooms, educator expectations of their students are far too low; educators restrict their lessons' content to information that is simple and that is, most of the time, way below the level that is required. This implies that the teaching of LOTs is more dominant than HOTs in many South African schools.

In addition, in Webb's study, the observation of the teachers teaching fractions to Grade 5 pupils indicates that they used examples much easier than those that should be taught in this grade. Likewise, recent systematic national studies such as the South African Consortium for Monitoring Education Quality (SACMEQ) and the Annual National Assessment (ANA) point out that there is lack of the teaching of HOTs in many classrooms (Department of Basic Education, 2010). In like manner, in their longitudinal study in South African classrooms practices, Hornberger and Chick (2001) note that the majority of classrooms are characterised by 'safe-talk'. They point out that in safe-talk, teachers ask learners dumb questions so that children can give the answer without thinking much or deeply. By implication, in many South African schools, teachers do not introduce learners to much deeper learning; nor do they engage them with higher trains of thought or higher-level hierarchy of cognitive processes such as analysis, synthesis and evaluation (Siewierski, 2015).

Similarly, the classroom study conducted by Macdonald (1991) cited in Taylor and Vinjevold (1999), finds that teachers' questions were mostly designed for the recalling of data or for examining whether learners were paying attention to the lesson as opposed to eliciting responses that were more challenging. She continues to say that tasks in the classroom were generally oriented around the acquisition of information instead of HOTS. Undoubtedly, this is what Cummings (1984) calls the 'dumbing down' of education; this relates very closely to his quadrant C of his four quadrants of language proficiency model. In this quadrant, learning activities are not cognitively and linguistically demanding, for instance, listing of items. This is in contrast to quadrant D where learning activities are cognitively and linguistically demanding. It requires the application of inferential, comprehension and reasoning skills, which are by far more valuable to the learning process. This is because they are abstract skills and compel learners to think beyond their immediate constraint but rather think logically, provide justifications and make connections between cause and effects arguments (Cummings, 1984). Sadly, the majority of classroom practices in South Africa, including language teaching, do not engage learners in this quadrant since only few teachers are interested in linking the subject matter to the world outside the classroom, which limits learners' higher-level mental abilities (Siewierski, 2015). The Figure 2.1 below illustrates Cummings' quadrant:



**Figure 2.1: Cummins' model of thinking (taken from Cummins, 1984)**

### **2.4.3 Research into South African Classroom Practices**

In South Africa, research into classroom practices has been met with criticism for quite a few reasons; including that it is generally conducted at a small-scale (Taylor & Moyane, 2004; Taylor & Vinjevold 1999). Equally, Chisholm (1992) concurs that research, which has investigated educational problems in South Africa, is minute and has not yielded any sophisticated results. In general, the classroom-based studies that present a sufficient base of knowledge regarding teaching and learning of HOTs in

South African schools is minuscule (Hoadley, 2012). In addition, in Limpopo Province, the province in which this study was done, the Khanyisa Education Support programme baseline study, which studied 24 rural primary schools, is one of the few studies that generated a number of interesting insights into classroom practices (Taylor & Moyane, 2005).

However, Taylor and Moyane (2005) contend that this effort is not adequate to interrogate fully issues around teacher practices, such as the teaching of HOTs. The review of the literature clearly indicates that so much still needs to be explored about the teaching of HOTs, particularly concerning English FAL classroom practices. Hence, this study seeks to fill the gap that was identified in the literature. What is even more important is that it appears that many schoolchildren do not know how to use their 'intelligence', which is HOTs, in order to learn successfully and are likely to become adults who lack knowledge (Green, 2014).

#### **2.2.4 General curricular aims in South Africa since 1994**

Green (2014) notes that when South Africa became a political democracy in 1994 it witnessed several curricular revisions, owing to the complex transformation of its education system inherited from the apartheid education system. She continues to argue that all versions of the national curriculums incorporated in the educational system have the explicit goal to develop thinkers who can collaborate effectively with others. Indeed, the Department of Basic Education (2011b) states that the general aims of the Curriculum and Assessment Policy Statement (CAPS) document is to produce learners who can identify and solve problems and make decisions using critical and creative thinking. The CAPS document also seeks to enable learners to collect, organise, analyse and critically evaluate information; as well as to demonstrate an understanding of the world as an interconnected system by being aware that problem-solving contexts are universal. Undoubtedly, these aims clearly indicate that the South African Ministry of basic education's ultimate goal is to have learners who at the exit of their secondary school level would have thoroughly developed their HOTs. This would suggest that HOTs should be taught in all subjects at all levels.

However, Green (2014) contends that even though the above aims suggest the great need for a range of cognitive skills (HOTs), it still appears that many students, in South Africa and elsewhere, emerge from schooling without the knowledge and developed thinking abilities necessary for them to be responsible citizens of the democratic state and to survive independently, let alone succeed, in a global environment that presents many challenges. This applies to South African schools and tertiary institutions too. Siewierski (2015) concurs that after the exit of secondary school level, the majority of learners' social knowledge is still weak; they cannot evaluate rival positions and make their own stand on difficult subjects.

Moreover, Marzano (1993) notes that as powerful as teaching and learning strategies (which are informed by curricula aims) could be, an even more powerful set of them may be underutilised. This seems to be the case in South Africa too as expressed by the national teachers' union specifically South African Democratic Teachers Union (SADTU) in Molefi (2015) that the teachers are not adequately trained to adapt to the rigours of CAPS which requires teacher to teach learners cognitive or HOT skills. The implication here is that a great number of South African teachers lack the competence to implement the aims of the curriculum, consequently, regardless of the potential effectiveness of these aims with their specified strategies and how to operationalise them, schools still attain inadequate success.

## **2.5 THE SIGNIFICANCE OF THE TEACHING OF HOTS**

The significance of the teaching of HOTs to 21<sup>st</sup> century learners is encapsulated (and correctly predicted) by Brophy (1992) as he argues that schools should embrace the need to instil HOT as a way of preparing the 21st century workforce as rapid changes in the global economy and technology shape the occupational outlook of today's learners. He goes on to say that no longer is it enough for learners at the exit of high school to

only know basic facts and skills; for them to be successful they should demonstrate the mastery of the skills such as prioritising, strategising, decision-making and collaborative problem-solving. Similarly, a number of researchers clearly indicate that when learners acquire HOTS they will go beyond recognition, recall, and reproduction of information, to the analysis, synthesis, evaluation, production, and application of ideas; instead, they will exhibit independence and initiative in directing their own learning (Gardner, 1991; Sizer, 1985 & Darling-Hammond, 1997). These researchers further state that learners will have the ability to evaluate evidence, ask questions, defend arguments and apply their knowledge to novel situations.

In addition, Costa (1991) is of the view that teaching thinking is an essential foundation for developing the minds of tomorrow's adults. He also states that to prepare students for the world of rapid change, it is imperative that teachers groom their students to think critically and to think on their own. Furthermore, Burke and Williams (2008) claim that the ability to think critically that comes with having the tools for higher order thinking can help students far into the future to not only grasp new information and material but also figure out how to change and adapt to new situations. In addition, Meir (1994) posits that the enhancement of cognitive abilities in children can result in a snowballing effect, as with these enhanced abilities children's capabilities to learn additional or even more complex cognitive strategies and operations are increased. These skills stick with learners throughout life because they are cross-discipline (Fisher, 2012). By implication, for today's learners to become fully effective members of society at the exit of the schooling system, they need to have been thoroughly equipped with HOTS. These skills are even more essential seeing that the world is on the brink of the fourth industrial revolution, which will require a completely new set of skills that will mostly be HOT in nature.

### **2.5.1 Controversies over the Teaching of HOTS**

There are significantly divided views about whether higher order thinking skills (HOTS) should be taught consciously or unconsciously (Rajendran, 2001). In support of the unconscious teaching of HOTS, Atkinson (1997) holds that critical thinking (which is one

of the dimensions of HOTS) cannot be taught. The first reason is because, critical thinking is rather an implicit common sense skill embedded in social practice than an explicit set of skills; secondly, the teaching of critical thinking demands a culture that praises and encourages criticality; and thirdly, critical thinking is context-bound, and the skills learnt in one context might not be transferred to another. Rajendran, (2001) also states that some argue that when a subject is taught properly, it will automatically lead to the promotion of HOTS. This suggests that thinking, in general, is the natural outcome of teaching and learning (Rajendran, 2001). In the same vein, it implies that teachers should not make any conscious effort in trying to teach HOTS to their learners since people think spontaneously without being taught.

In contrast, Simister (2007) contends that the dispositions and habits of an active learner and thinker need to be cultivated; this is because they are less likely to develop on their own since they are specific and powerful. Green (2014) is of the same view that students can acquire thinking skills and dispositions that promote critical and creative thinking (these are HOTS) if teachers intentionally teach or mediate them. She goes on to say that, the ability to think effectively can be encouraged and learned (a process sometimes referred to as 'cognitive education' and that schools can become communities in which both teachers and students are actively engaged in these processes.

In addition, Du (2011) in Rajendran (2001) hypothesises that due to its abstract nature, critical thinking may be better learned through guided practising and scaffolding from more capable and experienced people, for example, teachers in this case. This is essential in that people's reasoning and thinking do not naturally escalate as they mature. This is because their creative and critical thinking abilities do not develop automatically (Rajendran, 2001). He further states that adults whose creative and critical thinking were never developed exhibit intellectual abilities that are no more advanced than the processes of thinking they employed when they were in the sixth grade. This strongly suggests that HOTS cannot develop properly and fully unless there are measures put in place to teach them consciously and explicitly.

## 2.6 THREE APPROACHES TO TEACHING THINKING

Swartz and Parks (1994) posit that there are at least three general approaches to the teaching of thinking. They further contend that, firstly, there is the teaching *of* thinking (my emphasis) (also called direct instruction of thinking) which is used in non-curricular contexts. When using this approach to teach thinking it will entail that, in a time chosen for the instruction of thinking, learners learn how to employ thinking strategies explicitly, usually directed by the educator; such lessons are characterised by tasks that are oriented towards the language of thinking as well as procedures for doing them skillfully (Swartz & Parks, 1994). Furthermore, the second approach for teaching thinking is referred to as teaching *for* thinking (Swartz & Parks, 1994). They continue to say that this approach involves the use of techniques or methods that stimulate learners' comprehension of the content in a deeper way; examples of those methods involve employing graphic organisers, cooperative learning, higher order questioning, manipulative and enquiry learning. Certainly, this approach could be advantageous if infused in the learning and teaching practices in South African schools. This could reverse the current patterns of learning and teaching in the majority of classrooms which are characterised by a great deal of repetitions, rhythmic chants, singing and rote memorisations with little consideration to higher order thinking skills (Lebese, 2012). The researcher anticipates that this will also be found to be the case in the schools that form part of this study.

Furthermore, Swartz and Parks (1994) postulate that the third approach for the teaching of thinking is called the teaching *of* thinking skills by means of the infusion approach. They go on to say that when using the approach; lessons are fashioned in a way that a clear emphasis on skillful thinking is included into content instruction so that learners can improve their cognitive processes. Equally, classroom activities are carefully and thoroughly concentrated on the content as well as on the thinking process or skill; infusion lessons focus on a range of effective pedagogic practices that characterise the way thinking is plainly emphasised in these lessons (Swartz & Parks, 1994). This is essential in that there is a general misconception that sufficient understanding is gained



only through the teaching of knowledge, that is, language content (Rajendran, 2001). However, the primary focus or aim of education should be on building the basis, that is, a deeper understanding of knowledge, to facilitate the active utilisation of knowledge and skills (Perkins, 1981). Indeed, this approach could effectively facilitate the teaching of HOTS since it does not focus only on language content but simultaneously concentrates on thinking skills, which in turn will enhance the language skills needed to express, for example, arguments or solutions. Figure 2.2 below presents these approaches:

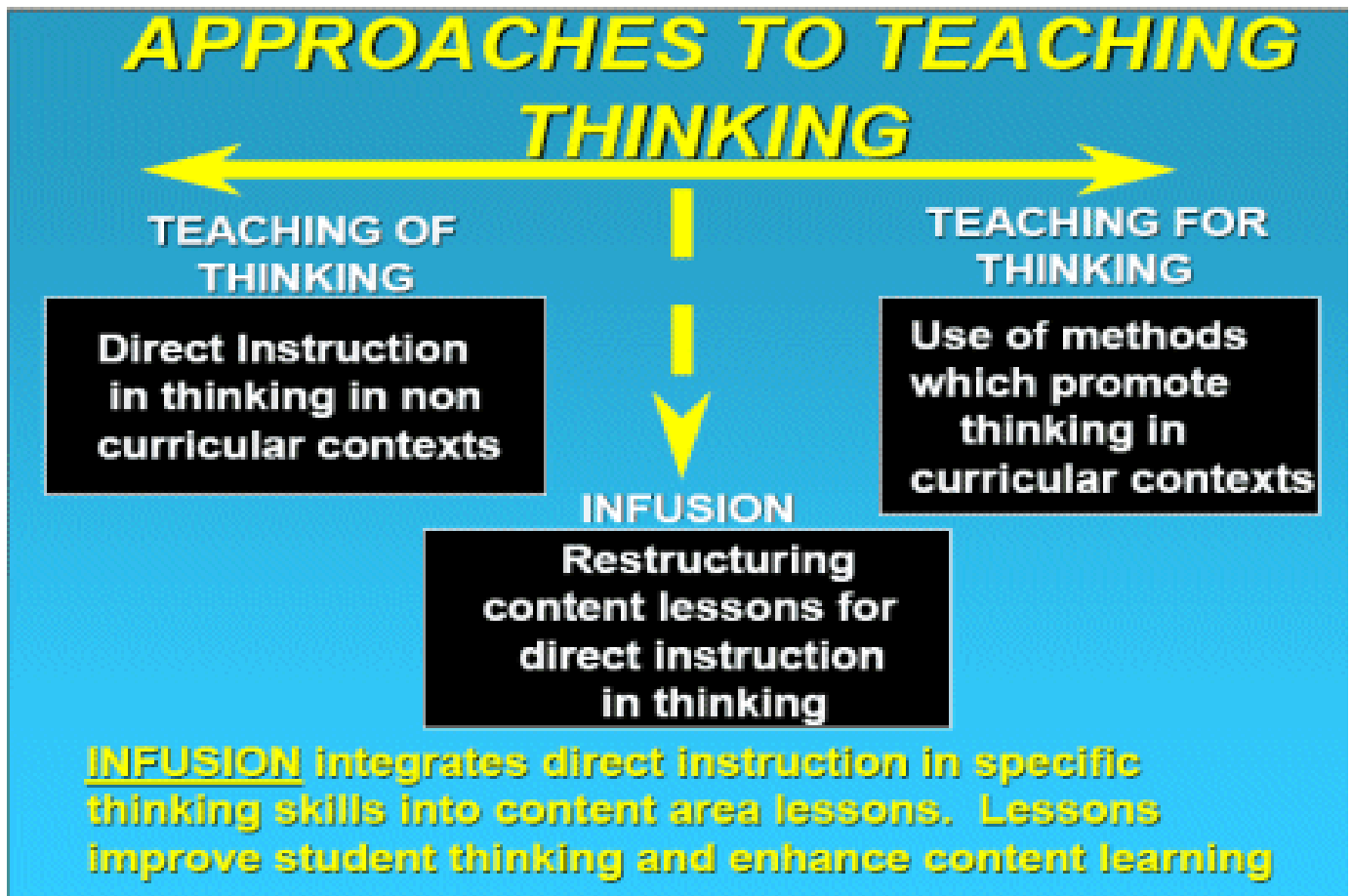


Figure 2.2: Three approaches to teaching thinking (taken from Swartz & Parks, 1994)

## 2.7 THE IMPORTANCE OF LANGUAGE IN TEACHING HOTS

Du Plessis, Conley and Du Plessis (2007) observe that one of the emphases in Vygotsky's learning theories is the relationship between thinking (i.e. cognition) and

language. Palmer (2010) confirms this claim by remarking that the basis of Vygotsky's most respected work is the interrelationship and interdependence between thought and language (the most universal of cultural tools). She goes on to say that he maintained that thought is 'internalised language'. In support of this view, Du Plessis et al. (2007) state that "language is the vehicle of thought since language and thought are inseparably intertwined." This strongly suggests that "the speech structures mastered by children, therefore, become the basic structures of their thinking" (Palmer, 2010). This means to a great extent the child's linguistic ability determines the development of their thought; this also relies heavily upon the child's socio-cultural experience. For that reason, to facilitate and encourage the development of rich, effective spoken language is one of the most crucial functions of education (Palmer, 2010). Thus, any educator who will engage in the teaching of HOTS should be fully aware of the pivotal role that language plays in the facilitation of that process. Hence, this study is located in the language classroom.

Moreover, there are quite a few reasons why teachers should improve their learners' thinking abilities and their language abilities at the same time (Rajendran, 2001). Firstly, pedagogic strategies that reinforce thinking capabilities turn to accelerate language achievement (Collins, 1992). This is because of the interrelationship and interdependence between language abilities and thinking competencies. To put it in another way, they shape each other and both are of equal strength in developing learning (Block, 1993). Secondly, language enables individuals to refine, clarify and organise their thoughts and, in fact, shapes how they think and what is possible to think (Green, 2014:21). It is apparent that the effective teaching of the language (English) could give rise to deep conceptual understanding in learners; it could enable them to use their higher order thinking skills when engaged in various activities. Rajendran, (2001) concurs that language facilitates effective thinking.

### **2.7.1 Teaching HOTS in Second Language Learning**

Shirkhani and Fahim (2011) are of the opinion that the teaching of HOTS should be a primary focus of any Second Language (L2) curriculum, since language development and thinking are closely related. They further point out that educators have emphasised the importance of developing HOTS in foreign language classrooms - in South Africa this will be in the second language classroom (Chamot, 1995; Tarvin & Al-Arishi, 1991). In South Africa, and in this study, this will be in the second language classroom. In the same vein, there is strong support from empirical evidence about the effectiveness of teaching HOTS, such as critical thinking skills, and the foreign (or second) language concurrently (Chapple & Curtis, 2000; Davidson, 1994, 1995). In fact, language learners who have improved and developed their HOTS, like creative and critical thinking, are more capable of doing activities which other learners with LOTs may not be capable of doing (Shirkhani & Fahim, 2011). Equally, a study by Mahyuddin, Lope, Elias and Konting (2004) strongly suggests that language students with critical thinking abilities are capable of thinking in a more creative and critical manner (these are HOTS) and this aids them in achieving the curriculum's goals. Likewise, these learners become well-rounded individuals as they are equipped with the capability to use their thinking skills to understand language or its contents, to make sound decisions and effectively solve problems as well as the capability to treat thinking skills as lifelong learning, which makes them spiritually, intellectually, emotionally and physically well-balanced (Mahyuddin et al., 2004).

However, in the face of much consensus among educators and theorists regarding the significance of thinking skills in the development of second language, in normal classroom settings, the learning of language and thinking skills are often dealt with as discrete processes (Mirman & Tishman, 1988; Suhor, 1984). Pica (2000) states that in the English language teaching methodology, traditionally the combination of language and thinking skills has been marginal. Kabilan (2000) contends that even communicative language teaching, which views language as a communication tool and encourages the use of it for that end, does not really help learners to gain full proficiency in the target language. His suggestion then is that for learners to have high levels of proficiency in a language, they need to apply HOT capabilities such as creative

and critical thinking when using the target language. Thus, by implication, teachers need to use cognitive development approaches to help learners to develop HOTS in second language learning, in this instance English, since, it seems that even communicative approaches to language teaching may be ineffective in developing HOTS among learners.

### **2.7.2 Written Language and HOTS**

Rajendran (2001) postulates that the four skills of language instruction, specifically listening, speaking, reading and writing, should be used to improve the HOTS abilities of learners. In terms of the relationship of writing to thinking (which is the only focus in the study out of other components) Vygotsky (1978) postulates that written language is not just a translation of oral speech, but a more impersonal and de-contextualised form of language, the mastery of which further enhances thought (Green, 2014: 21). Similarly, Nickerson (1984: 33) states that “writing is viewed not as medium of thought but also a vehicle or developing it.” He continues to remark that it is the robust nature of writing that makes it a powerful tool for the enhancement of thinking.

In addition, Rajendran (2001) maintains that writing, as a composing process is a highly demanding and complex intellectual task. One of the obvious reasons that make writing to be one of the most cognitively taxing acts is its nature of maximising the information load that has to be retained in working memory during performance (Rajendran, 2001). He goes on to say that practice in writing should focus on enhancing performance in any thinking process in which executive functioning or control over several variables is a cause or factor, for instance, some form of problem-solving. This clearly suggests that the writing process could be used to develop the conceptual abilities of learners; it can serve as a tool to unleash and enhance higher order thinking skills in learners. This also suggests that it could be easily detected whether teachers are infusing HOTS.

However, not all forms of writing instruction will enhance such executive control (Rajendran, 2001). Executive control or functioning involves conscious, thoughtful and purposeful activation, monitoring, orchestration, adaptation of strategic resources,

motivational states, knowledge, and skills to achieve the desired goal (Graham, Harris & Olinghouse, 2010). To acquire such executive control, Hillocks (1986) in his research for meta-analysis of writing, argues that teachers should properly design instructional activities that will culminate in a high-level learner autonomy and interaction regarding the problems dealt with. He further remarks that this type of instruction has a powerful effect on learners' thinking. Certainly, this indicates that language teachers need to consciously infuse higher order thinking strategies into their writing teaching practices. This is necessary because all four-language components are still underutilised in promoting HOTS in many classrooms (Rajendran, 1998).

### **2.7.3 Go from Basic to Sophisticated**

Most proponents of cognitive education would agree that there are occasions when Skinner's (1974) means of learning where, during a learning process, a behaviour's strength is modified by reward or punishment, can be fruitfully applied to enhance the rote learning of the basic facts or the acquisition of desirable social or even cognitive habits (Green, 2014: 8). Green further states that this is also true of other behaviourism theories like Bandura's (1977) social learning theory, and she argues that the insights of behaviourism cannot be dismissed out of hand in relation to the teaching of HOTS. It could assist in providing a proper mediational learning environment whereby English language teachers scaffold learners from the basic concepts to the sophisticated ones. This implies that teachers should ensure that learners have mastered basic concepts before proceeding to more sophisticated, advanced, complex and abstract concepts or else their effort to infuse HOTS into their English language teaching will be counterproductive.

Furthermore, linking this to Bloom's taxonomy of educational objectives, a UNISA study guide (2017) notes that like all taxonomies, the taxonomy is illustrated as a pyramid (see 30) suggesting that the lower domains or levels are more basic and that the higher levels are more advanced and complex. It further states that the implication is that every layer or level provides the 'thinking material' for the level directly above. Therefore, if students do not possess complete mastery of basic concepts, they may try

to memorise rather than understand (Thomas & Thorne, 2009). They further point out that a weak understanding of basic concepts can be the cause for misunderstanding and the lack of ability to apply knowledge flexibly. By implication, for HOTS to develop fully in English language teaching, they (HOTS) need sturdy progression from a strong base of low order thinking skills (LOTs), which might compel teachers to first develop a firm foundation of LOTs before attempting to infuse HOTS in their classroom practices.

In addition, the need to strengthen basic concepts in learners could be even more necessary in South African classroom practices, as a study by Taylor and Vinjevold (1999) finds that pupils did not have the language skills, which are equivalent to HOTS and are required to process abstract concepts. Macdonald and Burroughs (1991) maintain that the problem is also heightened when learners change the medium of instruction from mother tongue to English in the fourth grade (what is called early-exit). They further state that this is because English language lessons do not fully prepare the learners for instruction in English in a broad range of subjects. Indeed, this could be one of the apparent reasons that lead to an inability for higher level thinking in learners' thinking processes.

## **2.8 CATEGORIES OF HOT**

It was indicated in Chapter 1 that definitions of HOT fall into three classifications or categories (Brookhart, 2010). The first classification defines HOT in terms of transfer; the second one defines it in terms of critical thinking, and thirdly it is defined in terms of problem-solving. These categories are discussed below:

### **2.8.1 The Transfer**

The central focus of any educational aims is to encourage retention and to promote transfer (which, when it takes place, shows meaningful learning). Retention entails that learners recall what they have learned, while transfer involves not only remembering but also to make sense of what was learned and be able to use what was learned (Anderson & Krathwohl, 2001: 63). Ramos, Dolipas and Villamor (2013) note that HOTS, what they call higher-level mental abilities of the students such as to interpret,

analyse, reason out, synthesise or evaluate any type of information, have a high likelihood of enabling them to transfer learning to entirely novel situations. They also argue that knowledge acquired through HOT processes is more effortlessly transferable so that students with a deeper conceptual grasp of an idea will be much more likely to be able to apply that knowledge when solving new problems. This strongly suggests that if teaching and learning take place at lower cognitive levels, which some researchers found to be the case in the majority of classrooms in South Africa (Howie et al., 2007; Taylor & Vinjevoold,1999:143), it means that learners are not prepared to apply existing knowledge in new areas.

### **2.8.2 Critical Thinking**

The critical thinking classification encapsulates this definition: critical thinking entails reasonable, reflective thinking that is concentrated on deciding what to accept as true or do (Norris & Ennis, 1989:3). Likewise, critical thinking includes logical thinking and reasoning which involves skills such as comparison, sequencing, classification, cause and effect, webbing, patterning, analogies, deductive and inductive reasoning, planning, hypothesising, forecasting and critiquing (Johnson & Lamb, 2011). Another insightful example in this classification comes from Barahal (2008) who defines critical thinking as 'artful thinking'. He states that artful thinking involves questioning, reasoning and investigating; it also includes comparing and connecting, finding complexity, and exploring viewpoints. Similarly, Chaffee (1994) avers that critical thinking involves critical implication and discussion, which serves as a vital means to activating problem-solving and decision-making processes. He continues to say that critical thinking is a crucial constructivist analysis process, which helps people to examine or scrutinise what is taking place in their environments.

In addition, Siewierski (2015:119) concurs that through critical thinking people can actively interrogate idea(s) by asking the what, when, who, where, how and why questions. She further states that by using critical thinking, faulty logic, generalisations, ambiguity and other errors in argumentation could be recognised skills in foreign language classrooms. Further, there is strong support from empirical evidence about

the effectiveness of teaching critical thinking skills and the foreign language concurrently (Chapple & Curtis, 2000; Davidson, 1994, 1995). This may apply to the South Africa context too. Hence, this study is located in the language classroom.

### **2.8.3 Problem Solving**

Foshay and Kirkley (1998) maintain that under the influence of cognitive learning theories, such as SCT, problem-solving represents a complex mental activity including a variety of cognitive skills and actions. Garofalo and Lester (1985:169) posit that problem solving includes HOTS such as 'visualisation, abstraction, comprehension, manipulation, reasoning, analysis, synthesis, and generalization each needing to be 'managed' and 'coordinated'.' Furthermore, Miller, Imrie, and Cox (1998) argue that problem-solving involves thinking skills like analysis, evaluation and synthesis, which are regarded as the three higher levels of thinking on the Bloom's taxonomy of cognitive domain (see Figure 2:3, Section 2.9: 30).

However, Howie et al. (2007) note that within the South African education system, syllabuses, forms of evaluation and methods of teaching do not encourage the development of problem-solving skills such as critical, logical and analytical skills, which are HOTS. This could be a reality in language classrooms. Hence, this study is located in English FAL classrooms to find out if their claim is true.

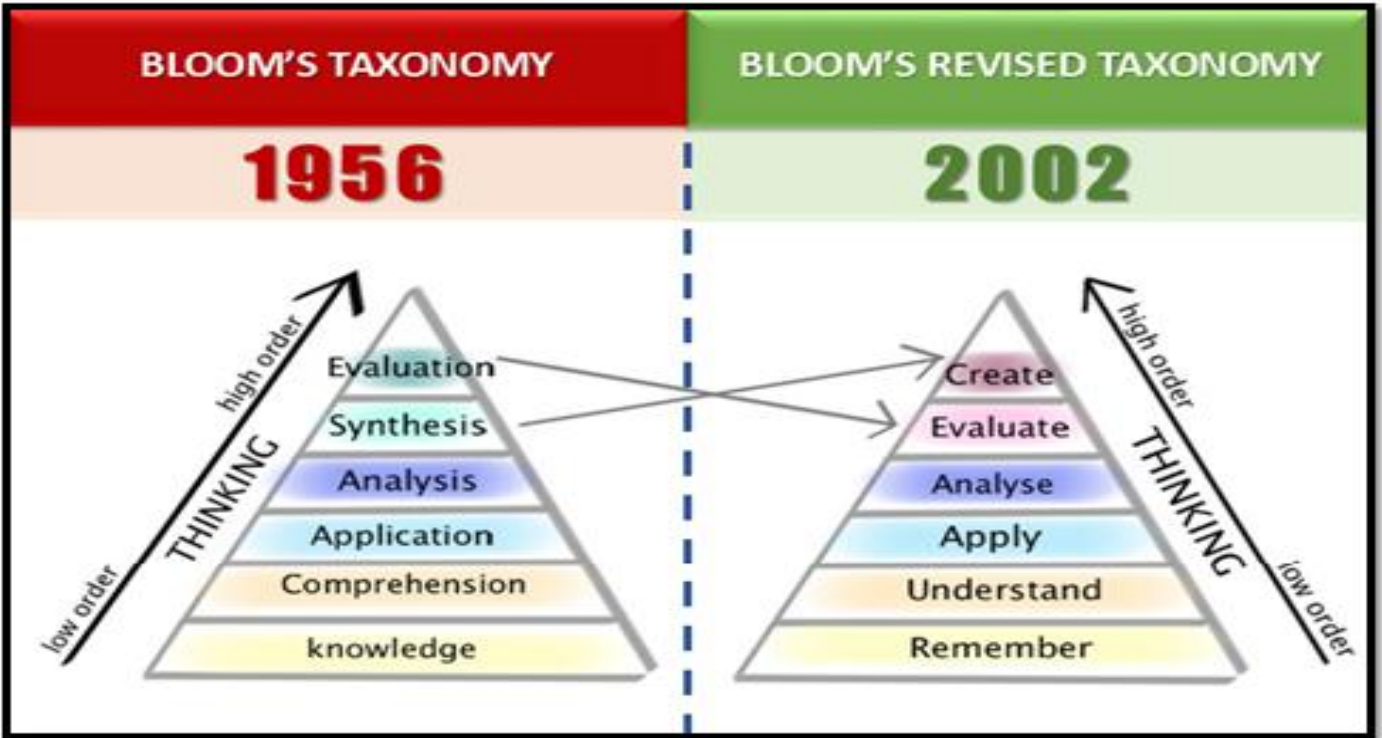
## **2.9 SIX LEVELS OF BLOOM'S REVISED TAXONOMY OF COGNITIVE DOMAIN**

Bloom, an educational psychologist at the University of Chicago, wrote the Taxonomy of educational objectives, generally known as Bloom's taxonomy (Bloom, Engelhart, Furst, Hill & Krathwohl, 1956). Borich and Tombari (2004:47) argue that Bloom's Taxonomy classifies various objectives of learning into specifically three main domains of learning: *cognitive* which refers to mental skills and thinking, *psychomotor* which refers to manual skills or physical activities, and *affective*, which refers to emotions, feelings, experiences, or particular attitudes. Pohl (2000) maintains that the cognitive domain (in consistence with the aim of this study, it will be the focus in the study) is the most reliable and well-established framework that has been used for analysing the cognitive



domain of human learning. He continues to say that its aim is to express qualitatively various categories of thinking. It serves as a means to organise thinking skills into six categories or levels, starting with the most basic to the more complex levels of thinking (Pohl, 2000). These thinking levels or skills of the cognitive domain in Bloom's original taxonomy are *knowledge, comprehension, application, analysis, synthesis* and *evaluation* (Booyse & Du Plessis, 2014).

However, after Bloom's original taxonomy was criticised by several scholars, it was revisited to incorporate the many advances in knowledge since its original publication; it reflects a changed reflection on thinking and learning. Anderson and Krathwohl's (2001) revision is the closest to Bloom's revised taxonomy that continues to be used in the field of teaching. The revised version draws heavily on Bloom's original taxonomy; hence, its categories are in accord with Bloom's original version (Pohl, 2000). Most importantly, it keeps six of the cognitive process categories: *remember, understand, apply, analyse, evaluate* and *create*. However, one of the salient changes in the revised taxonomy is in the major categories in the cognitive process dimensions where noun forms such as application were relabelled with verb forms (e.g. apply) to show that thinking is an active process (Anderson & Krathwohl, 2001). In addition, in the revised taxonomy, "synthesis" is referred to as the action of creating and is deemed to be a more challenging cognitive skill than "evaluation", which requires forming an opinion. Moreover, a reinterpretation of the revised taxonomy (Anderson & Krathwohl, 2001) makes possible the application of task choices, expected response and the ability to place a question in a particular cognitive category. The teacher must contextualise the action word in the question; for instance, simply compiling a list requires the recall of facts, while listing a sequence of events requires the learner to choose, collect and classify information and is therefore rated as "application" The figure 2.3 below illustrates these changes.



**Original Version**

**Revised Version**

**Figure 2.3: Bloom’s original and revised Taxonomy (taken from Anderson & Krathwohl, 2001).**

This revised taxonomy or model was used in the study as one of the data analysis techniques; it was used to analyse exercises in the Grade 4 English FAL workbook to ascertain if they were promoting HOT. Bloom’s taxonomy was more appropriate for the analysis of the exercises over Barrett’s Taxonomy, which is used as a framework of cognitive levels in the CAPS document for the phase and language proficiency. The reason was that Chapter three discusses in detail how this model was employed to analyse the workbook. The levels or categories of the revised version are discussed in descending order below:

The first level (lowest level) as indicated in Figure 2.3 above is labelled *remember*. Learners engaged in this level of thinking can only use language for remembering or retrieving previously learned material. At this level, learners can only: identify, relate,

know, list, define, recall, memorise, repeat, record, name, recognise and acquire information.

The second level of thinking is named *understand*. Learners engaged in this category demonstrate the ability to grasp or construct meaning from material. They are able to use language to do the following: restate, locate, report, recognise, explain, express, identify, discuss, describe, discuss, review, infer, illustrate, interpret, draw, represent, differentiate and conclude.

The third level of thinking is *apply* learners operating at this level demonstrate the ability to use learned material or to implement material in new and concrete situations. They can use language to apply, relate, develop, translate, use, operate, organise, employ, restructure, interpret, demonstrate, illustrate, practise, calculate, show, exhibit and dramatise from the material that they learned.

The fourth level of thinking is *analyse*. At this level, learners show the ability to: break down or distinguish the parts of material into its components so that its organisational structure may be better understood. At this level learners will demonstrate the ability to analyse, compare, probe, inquire, examine, contrast, categorise, differentiate, contrast, investigate, detect, survey, classify, deduce, experiment scrutinise, discover, inspect, dissect, discriminate and separate.

The fifth level is termed *evaluate*. Learners when operating at this level, they can make judgments based on criteria and standards; they can justify a stand or decision, argue, appraise, assess, critique, check, conclude, compare, criticize, defend, estimate, evaluate, judge, justify, predict, rate, select, support, value.

The sixth category which is the highest level is labelled *create/ design*. Learners here show their ability to: put elements together to form a coherent or functional whole; reorganise elements into a new pattern. In other words, can the student create a new product or point of view? Can the student assemble, combine, compile, compose,

create, construct, design, develop, devise, formulate, generate, invent, organise, plan, prepare, produce, propose, reconstruct, revise, rewrite and write?

In addition, these six categories of thinking based on Bloom’s Revised Taxonomy of cognitive domain could be easily conceptualised in the Table 2.1 below. Each of these categories of thinking is listed in the Table below with its different types of verbs, questions and products/outcomes that are associated with it.

**Table 2.1 Categories of Thinking Based on Bloom’s Revised Taxonomy**

<b>Categories/ Level of Thinking</b>	<b>Questions / Verb Examples</b>	<b>Potential Outcomes or Products Activities</b>
<p><b>1. REMEMBER (lowest level)</b> Retrieving, recognising, and recalling relevant knowledge from long-term memory.</p>	<p><b>Can the student recall or remember the information?</b> arrange, define, label, list, match, memorise, name, order, recall, recognise, repeat, reproduce, restate, state</p>	<p>*Answer questions that begin with who, what, when, where (if the answer is explicitly given in a story) *Match characters to action or dialogue *Information gap questions *True-False, Either/Or statements *Match L2 vocabulary to English</p>
<p><b>2. UNDERSTAND (LOT Level)</b> Constructing meaning from oral, written and graphic messages.</p>	<p><b>Can the student explain ideas or concepts?</b> classify, compare, describe, discuss, explain, express, give examples, give main idea, interpret, paraphrase, report,</p>	<p>Summarise a story in own words *Restate main idea of story *Explain why a character in a story does/says something (when answer was stated in story) *Describe a person/place in</p>

	identify, review, select, summarise, translate	the story *Translate text aloud to English
<b>3. APPLY (LOT Level)</b> Carrying out or using a procedure.	<b>Can the student use the information in a new way?</b> apply, choose, demonstrate, dramatise, execute, illustrate, implement, interpret, outline, point out, role play, show, sketch, solve, use	*Act out novel commands *Rewrite a story from a different point of view (POV) *Act out a story *Draw a story
<b>4. ANALYSE (HOT Level)</b> Breaking material into constituent parts, determining <i>how the parts relate to one?</i> another and to an overall structure or purpose.	<b>Can the student distinguish between the different parts?</b> analyse, appraise, attribute, break down, calculate, categorise, compare, contrast, differentiate, , discriminate, dissect, distinguish, examine, organise, question, test	*Answer <i>why</i> or <i>open-ended</i> questions (when answer is indirectly stated or implied in a story) * Break down the main actions of the story *Use a VENN diagram to compare and contrast (characters, situations, countries, cultures, schools, etc.)
<b>5. EVALUATE (HOT Level)</b> Making judgments based on criteria and standards.	<b>Can the student justify a stand or decision?</b>	*Evaluate appropriate/inappropriate actions of characters *Compare cultures *Predict what will happen

	<p>argue, appraise, assess critique, check, conclude, compare, criticize, defend, estimate, evaluate, judge, justify, predict, rate, select, support, value</p>	<p>next *Make inferences</p>
<p><b>6. DESIGN (highest level)</b> Putting elements together to form a coherent or functional whole; reorganising elements into a new pattern.</p>	<p><b>Can the student create a new product or point of view?</b> assemble, combine, compile, compose, create, construct, design, develop, devise, formulate, generate, invent, organise, plan, prepare, produce, propose, reconstruct, revise, rewrite, write</p>	<p>Create and give novel commands *Write an original story *Compose a class story *Invent new details for a story * Generate/invent answers to hypothetical questions *Rewrite a story adding details &amp;/or characters that were not in the original</p>

**Source: The Alan Bloom’s classic 1956-revised learning taxonomy (adopted from Anderson & Krathwohl, 2001).**

What is more crucial in relation to teaching these cognitive skills in the Table 2.1 above, the UNISA study guide for EDAHOD5 (2017) argues that it is vitally important to remember that learners at any grade at school have the ability to function at all six levels or domains of the Taxonomy. Church (2017) holds the same view, that mostly infants, as well as toddlers, employ the first two categories or levels. However, by age three (3), children can exploit all six levels. Certainly, this implies that these levels of

thinking can be challenged in any pedagogic practice that learners are engaged in. This also means that intermediate English FAL learners' age levels allow of the teaching of HOT. Hence, the intermediate English FAL teachers could use the English language classroom to develop and challenge all of these levels in their interactions with English FAL learners.

## **2.10 BLOOM'S REVISED TAXONOMY OF COGNITIVE DOMAIN VS BARRETT'S TAXONOMY**

The rationale for comparing the two Taxonomies is because the table of cognitive levels provided in the CAPS document, **4.3.2**, which presents types of assessments for FAL content (**Page 96**), is the Barrett's Taxonomy and not Bloom's Revised Taxonomy of cognitive domain (DBE,2011b). In the study the researcher drew some similarities and dissimilarities between the two Taxonomies. In the discussion of dissimilarities two reasons are presented as to why in the study Bloom's Revised Taxonomy was preferred over Barrett's Taxonomy.

### **2.10.1 Similarities**

There are some significant overlaps between Bloom's Taxonomy of the cognitive domain and Barrett's Taxonomy. Both taxonomies have cognitive hierarchies that start from the lowest thinking to the highest thinking skills. In Barrett's Taxonomy, the lowest level of thinking is *literal comprehension*. This level involves both the recognition and recall of details, main ideas, sequence, comparison, cause and effect relationships, and character traits. In Bloom's Revised Taxonomy of cognitive domain, this level is equivalent to the lowest level of thinking namely *remembering*. The second level in Barrett's Taxonomy is *reorganisation*, which includes the classifying, outlining, summarising, synthesising of information. This level is comparable to the second cognitive level in Bloom's Revised Taxonomy of cognitive domain specifically *understanding*. Furthermore, *inferential comprehension* is the third cognitive level in Barrett's Taxonomy. The cognitive level involves *inter alia* the inference of supporting

details, main ideas, sequence, comparisons and character traits; also it involves the thinking ability to predict outcomes and interpret figurative language. In Bloom's Revised Taxonomy of cognitive domain, this level is parallel to the fourth level that is, *analyse*. In addition, in Barrett's Taxonomy, the fourth cognitive level is *evaluation* and this includes the judgments of reality or fantasy, judgments of appropriateness, judgments of adequacy, judgments of fact or opinion and validity. This cognitive level is akin to the fifth cognitive level in Bloom's Revised Taxonomy of cognitive domain specifically *evaluating*.

### **2.10.2 Dissimilarities**

The fifth and the highest cognitive level in Barrett's Taxonomy that is, *appreciation* presents the first salient dissimilarity between the two taxonomies. Notwithstanding that this cognitive level encompasses other four dimensions, it focuses more on *affective (emotional)* skills, such as emotional response to the content, identification with incidents or characters, imagery and reactions to the author's use of language (Barrett, 1968). Given the scope of the study, which is on *cognitive* skills only, Bloom's Revised Taxonomy of cognitive domain was found more suitable for the study since it has six clear categories of thinking skills in one of its three domains of learning. This was most appropriate to achieve the aim of the study, which was to *find out whether the intermediate English FAL teachers promote the teaching of HOT in their classes in the Mankweng circuit*. In the same breath, it was the researcher's impression that the *effective* skills, as a learning domain, require a study that is specifically dedicated to it.

Furthermore, the second salient difference between the two taxonomies is in the major cognitive categories whereas in Barrett's Taxonomy noun forms are used whereas in the Bloom's Revised Taxonomy of cognitive domain verb forms are used (Anderson & Krathwohl, 2001). The use of noun forms in Barrett's Taxonomy, which is the same with Bloom's old version, suggests that thinking is a stagnant phenomenon. However, the use of verb forms in Bloom's Revised Taxonomy of cognitive domain shows that thinking is an active process (Anderson & Krathwohl, 2001). For that reason, Bloom's Revised Taxonomy of cognitive domain was more appropriate in the current study to



achieve one the study's objectives which was *to find out if the instructional verbs in the Grade 4 English FAL workbook which promote HOT.*

## **2.11 CONCLUSION**

In summing up, this chapter provided the theoretical frameworks that guided this study specifically Fundamental Pedagogics and social constructivism. Likewise, it defined and framed HOTS and HOT. It argued that HOT is thinking that takes place in the higher-levels of the hierarchy of cognitive processing; it indicated that its skills that is, HOTS operate in a continuum fashion, starting from the lowest level of thinking that is, knowledge to the highest evaluating-level of thinking. It also pointed out that though HOT defies any simple universal definition, it is still possible to measure its components. Furthermore, it discussed both the international state on the teaching of HOTS and research into international classroom practices. It indicated that though the awareness about the need to teach HOTS is on the rise within the teaching community across the world, this has not yet fully translated into actual day-to-day classroom practices. Similarly, the state on the teaching of HOTS in South Africa and research into South African classroom practices were examined. It indicated that the majority of classrooms practices in South Africa do not engage learners in classroom activities that encourage HOT. Also, it pointed out that issues around teacher practices, such as the teaching of HOTS, have not yet been satisfactorily interrogated in many South African schools.

Additionally, general curricular aims in South Africa since 1994 as described in CAPS document were explored (DBE (2011b)). It is argued that the aims seek to promote HOT in learners, however, a great number of South African teachers are not sufficiently competent to ensure that the aims are realised. What is more, it discussed the significance of the teaching of HOTS; it clearly showed that these skills are indispensable in today's world. In the case of controversies over the teaching of HOTS, it argued that though thinking is a natural unconscious process, the ability for learners to use their HOTS, teachers would need to take conscious effort to develop these skills in learners in an explicit manner. Likewise, it pointed out that HOT teaching could be effectively done through the use of three general approaches for teaching thinking,

specifically; direct instruction, teaching for thinking and infusion approach. In the same way, it showed the importance of language in teaching HOTS and argued that the development of thought is largely determined by the linguistic ability of the learners. In addition, It recommended that when teaching HOTS in second language learning teachers should go from basic concepts to sophisticated ones.

Moreover, in the case of written language and HOTS it argued that the mastery of the written language enhances thought. Categories of higher order thinking were explored namely, transfer and critical thinking. It argued that the transfer categories prepare learners to apply existing knowledge to new areas whereas critical thinking categories equip them with reasonable, reflective thinking that is focussed on deciding what to believe or do. Equally, it discussed six levels of thinking based on Bloom's revised taxonomy of cognitive domain. It pointed out some of the changes that were made in the new taxonomy to incorporate the many advances in knowledge since its original publication. It thus argued that the revision reflects a changed reflection on thinking and learning.

Finally, the similarities and dissimilarities between Bloom's Revised Taxonomy of cognitive domain and Barrett's Taxonomy were discussed. It was argued that four cognitive levels in Barrett's Taxonomy are akin to four of the six cognitive levels in Bloom's Revised Taxonomy of cognitive domain. It was pointed out that *literal comprehension, reorganisation, inferential comprehension and evaluation* in Barrett's Taxonomy are comparable to *remembering, understanding, analyse and evaluation* in Bloom's Revised Taxonomy of cognitive domain respectively. Moreover, the dissimilarities between the two Taxonomies were discussed. It was shown that the fifth and the highest cognitive level in Barrett's Taxonomy that is, *appreciation* is dissimilar to any of the six categories in Bloom's Revised Taxonomy of cognitive domain since it focuses more on *affective (emotional)* skills. Equally, it was argued that the rationale for choosing Bloom's Revised Taxonomy of cognitive domain instead of Barrett's Taxonomy in the study was due to its use of verb forms as opposed to noun forms.

## **CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY**

### **3.1 INTRODUCTION**

The previous chapter dealt with the review of the literature relating to the justification for teaching HOTs and the state of the teaching of HOTs in classroom settings both at local and international level. This chapter outlines the design and methodology followed in the study. The research methodology was guided by the aim and objectives of the study. The aim of the study was to establish whether HOT is encouraged in the intermediate English First Additional Language classes in Mankweng Circuit. In this chapter, a comprehensive discussion of the following aspects is provided: research methodology and research design, population and sampling, the data collection process with its instruments and procedures, and the data analysis.

### **3.2 RESEARCH METHODOLOGY**

This study adopted a qualitative approach to research. Burns and Grove (2003:19) describe a qualitative approach as “a systematic subjective approach used to describe life experiences and situations to give them meaning.” Furthermore, Holloway and Wheeler (2002:30) refer to qualitative research as “a form of social enquiry that focuses on the way people interpret and make sense of their experience and the world in which they live.” They go on to say that the qualitative approach is used by researchers to explore the behaviour, perspectives, experiences and feelings of people and emphasise the understanding of these elements. Thus, this approach was most appropriate to achieve the aim of the study, which was to establish whether the intermediate English FAL teachers encouraged HOT in their classes in Mankweng circuit.

### **3.3 RESEARCH DESIGN**

The research design is a plan or blueprint of how research is to be conducted (Grinnell 1993 & Mouton, 2003). Parahoo (1997:142) describes a research design as “a plan that describes how, when and where data are to be collected and analysed.” It is a road map the researcher follows, from the study’s initial research questions and ultimately to its

conclusions (Lincoln & Guba,1985). An exploratory case study design was employed in this study.

### **3.3.1 Case Study**

There are different types of case study methods and despite the widespread use of case study methods throughout the social sciences, no consensus has emerged as to the proper definition, either of a case or of a case study (Ragin & Becker, 1992; Gerring, 2007). This case study was exploratory and occurred in an educational setting with a small group of educators. It does not profess to provide detailed data but to identify a problem that could be the springboard for a larger study. Furthermore, the Centre for Innovation in Research and Teaching (CERT) submits the following definition: This method is a condensed case study and the purpose is to gather basic, initial data that could be used to identify a particular question for a larger study. Hence, this study was not designed to produce detailed data from which any conclusions could be drawn. It is simply exploratory in nature.

In addition, the study also drew on the following definitions: Stake (1995) posits that a “case study is the study of the particularity and complexity of a single case, coming to understand its activity within important circumstances.” Yin (2014: 16) further defines it as “an empirical enquiry that investigates a contemporary phenomenon in depth and within its real-world context, especially when the boundaries between phenomenon and context are not clearly evident.” Therefore, this study was a study of a unique case within a specific context. Moreover, the case study was more appropriate in that it helped the researcher to focus on a single phenomenon in detail using multiple cases. This was done to discover related variables that would not have been easily detected using a quantitative research design.

Additionally, what prompted the researcher to select it is because he was not only interested in what goes on in the environment, but also how and why things are happening the way they are (cf. Yin, 2009; Denscombe, 2014). Hence, the ‘how’ and ‘why’ questions were used to investigate the phenomenon as they were likely to be

appropriate for a case study (cf. Yin, 2009: 27). The questions were generated from the literature sources about the teaching of HOTs, which are reflected in Chapter 2. It was also selected because of its major advantage in research which is to investigate contemporary, real-world situations without manipulating them. The design was most appropriate in this study because the researcher sought to evaluate in-depth the teaching of HOTs in intermediate English FAL classes and to analytically study the Grade 4 English Workbook.

It is true that, a case study does not provide an overview across a broad spectrum of instances of the teaching of HOTs by the teachers, nor the entire content of the Grade 4 English workbooks. (This was explained above.) However, it can provide a much deeper and detailed understanding of their teaching practices and the exercises done by the Grade 4 learners within a particular context. The aim of this study was therefore not to generalise, but as well stated by Denscombe (2010: 53), to apply a case study approach which can ‘illuminate the general by looking at the particular.’

### **3.2.2 Population and Sampling**

The target population of the study was intermediate (Grade 4) English FAL teachers and the Grade 4 English Workbooks. This is the total set from which the individual units of the study were chosen (Strydom, 2002). The research study took place in three primary schools in the Mankweng Circuit, in the Capricorn District, Limpopo Province. Two of the schools are situated in semi-urban areas and one school in a rural area. The two schools in the semi-urban area, specifically Dikolobe and Pula Madibogo, have better facilities compared to Diopong Primary School in a rural area. This school is situated at the edge of the village near poor housing facilities. However, the common denominator of the schools is that they all fall within a quintile three category, that is, previously disadvantaged and underserved schools.

Sampling is defined as “a procedure that uses a small number of elements of a given population as a basis for drawing conclusions about the whole population” (Neellankavil, 2007: 240). The sample design was based on purposive sampling, also known as

judgmental sampling. Babbie and Mouton (2010) state that this sampling technique is used when the sample group chosen is based on the researcher's own knowledge of the population, his own judgment and the purpose of the study. Bernard (2012) concurs that purposive sampling is the sampling method whereby a researcher decides the purpose he or she wants informants to serve and he or she goes out to find some. This type of non-probability sampling is in accordance with the exploratory aims of this research study (Babbie & Mouton, 2010).

In this study, the researcher firstly sampled five (5) intermediate English FAL teachers. Two of the teachers were Grade 5 and Grade 6 females from the Diopong primary school. The other two were, a Grade 6 male and a Grade 4 female from Pula Madibogo Primary School, and the fifth one was a Grade 6 female working at Dikolobe primary school. This small sample was chosen by the researcher to achieve the first objective of the study: To assess their views, their conceptualisation of HOT, and its application in their classroom practices.

Secondly, he sampled one (1) Grade 4 English workbook to achieve the other three objectives of the study. Sampling one Grade 4 English workbook was useful in sourcing rich data during analysis. This is because the researcher devoted more time to focus on one workbook than on many, which could have resulted in a superficial analysis of data. Another reason for using purposive sampling was to complete the interview schedule within a set period of a day. Hence, it was preferred over other sampling techniques such as snowballing, which tend to be difficult to use within a limited time set for research.

### **3.3 DATA COLLECTION PROCESS: INSTRUMENTS AND PROCEDURES**

Collection of data is a systematic process in which the researcher collects relevant information to achieve the researcher's purpose and objectives (Burns & Grove, 2005). In the study, data were collected from two data sources, namely, interviews and one intermediate English FAL Workbook.

### **3.3.1 Interviews with Teachers**

The first objective (of the four) of this exploratory case study was to collect qualitative data in an effort to understand the intermediate English FLA teachers' conceptualisation of HOTs and its application in their classes. In the study, interviews were used to achieve that objective. This is because interviews are specifically useful when the researcher wants to know more than just the facts, but also how the participants feel about, understand, interpret and experience the specific phenomena (Denscombe, 2014). One-on-one face-to-face semi-structured interviews were thus used to learn more about their views, opinions and beliefs of the research topic (Strydom & Bezuidenhout, 2014). Likewise, the interview schedule contained open-ended questions to facilitate unrestricted discussion about the various topics was used in the study. Each interview was about 25-minute long. This was enough time to ask five intermediate English FAL teachers questions that would provide deeper insights into the phenomenon that was under investigation.

Other methods of collecting the data such as questionnaires, focus groups and participant observation were not considered for the study. The reason is that they tend not to develop empathy or confidence with the participants (Hannan, 2007). Further, semi-structured interviews do not necessarily limit the study, but when reconsidered properly it involved large amounts of relatively unstructured text-based data that the researcher spent a considerable amount of time transcribing them verbatim. In addition, 5 participants in the study answered the questions on a personal level, this made transcribing and interpreting their opinions challenging. For that reason, this study cannot claim to have captured all the opinions and feelings of the English FAL teachers, particularly regarding tone of voice, facial expressions, and body language.

### **3.3.2 The Grade 4 English FAL Workbook**

Additional data were collected from one (1) Grade 4 English workbook. The researcher requested it from the English teacher at Dikolobe Primary School since its content was too big to be analysed in a day, the researcher asked the teacher whether he (the researcher) could keep it until the analysis was completed. This was possible because it was towards the end of the fourth Term; learners were no longer using them. The teacher received the necessary permission from the principal and the parent of the child to allow the researcher to leave with it. It took the researcher two weeks to analyse the content of the workbook. The process of what and how it was analysed is discussed in detail in the data analysis process below. It is discussed under Anderson and Krathwohl's (2001) Framework, which was used to analyse the workbook. In the main, the workbook was used to achieve three primary objectives of the study: firstly, to find out if the instructional verbs in the workbook activities promote HOT. Secondly, to check if the questions in the exercises of Grade 4 English Workbook were pitched in LOT or HOT categories of Bloom's Taxonomy of cognitive domain. Thirdly, was to determine any evidence of an incremental introduction of HOTS in its exercises through the four Terms.

### **3.4 DATA ANALYSIS PROCESS**

Cohen, Manion and Morrison (2011) maintain that qualitative data analysis can be described as a process of making sense from research participants' views and opinions of situations, corresponding patterns, themes, categories and regular similarities. This study used both Tesch's technique and Anderson and Krathwohl's (2001) framework for data analysis. The rationale for selecting Tesch's inductive, descriptive open coding technique for the data analysis process is because it is comprehensive and simple to use; it starts with the generation of topics from the text, which helps the researcher to progress easily into coding and theming (Creswell, 2014). Anderson and Krathwohl (2001)'s framework will be discussed after the discussion of Tesch's method below:

#### **3. 4.1 Techniques for analysing data**



Initially, the researcher's plan was to use computer-aided the qualitative data analysis software such as INVIVO, for the analysis process. This could not happen due to the lack of proper training and time constraints. Against this backdrop, the researcher opted for manual coding. Cohen et al. (2011) observe that a pencil and paper coding process provides a researcher with more control and ownership of their collected data. In this study, the researcher applied Tesch's (1990) method of coding to analyse the data. This was done by first reading through the text that was transcribed from the recorded interviews. In the process, the researcher also reverted to the sound recordings to confirm other important aspects such as language expression, behavioural incidences, and intonation and to check the text's accuracy. Nuances such as attitude, beliefs, self-confidence and frustration were identified. Thereafter, they were captured for further use in the analysis and interpretation phase.

The next step was to write down topics that emerged from the content and these topics were later aligned to the text to see their relationship to the content. At this point, a pattern was already emerging regarding the common experiences that participants were reporting on. The topics were later condensed into codes. After coding, similar topics were grouped together into categories. From each category, a number of themes also emerged which provided meaning to the data collected. The participants were also asked to validate the analysed data. Thereafter, the researcher assessed the similarities and differences in the coding process. He saw a need for re-coding and the merging of some of the themes. Seven themes that emerged from this coding process and included sub-themes that are all presented and discussed in Chapter 4.

#### **3.4.2 Anderson and Krathwohl's (2001) Framework (A& K framework)**

Anderson and Krathwohl's (2001) framework, which is a modified version of Bloom's taxonomy (see Chapter 2, Section 2.9: 29), was used for document analysis. This was done after the realisation that Tesch's method for data analysis would not yield sufficient pedagogic insights into the phenomenon that was under investigation in the study. As a result, it was decided that another technique for analysis was needed to enable an insightful and rich analysis of data. It was the most appropriate in achieving three of the

four objectives of the study. In the case of the second objective of the study, this sought to find out if the instructional verbs in the 4th graders' English Workbook promote HOT; Anderson and Krathwohl's (2001) Framework was used as a guide to locate in which of the six categories of thinking in Bloom's revised Taxonomy of the cognitive domain, instructional verbs in the language exercises in the Grade 4 English workbook belonged. Also, to see if those instructional verbs were classified in the two LOT categories that is, *remember* and *understand* or were they in the four HOT categories, namely, *apply*, *analyse*, *evaluate* and *design/create*.

The third objective of the study was to check if the questions in the exercises of Grade 4 English Workbook were in LOT or HOT categories of Bloom's Taxonomy of cognitive domain. The framework helped the researcher to establish if the questioning pattern was in favour of LOT or HOT categories. This was not difficult to detect because each category has a set of questions, based on their cognitive demanding levels, with which the category is associated. Furthermore, the categories of the A & K framework each have a set of skills that are related to the specific category; because of this, it was suitable in achieving the fourth objective. The objective was achieved by comparing and contrasting skills in two skill checklists in the Grade 4 English Workbook against the skills described in the six categories of Bloom's revised Taxonomy. These checklists, one for Term 1-2 and the other one for Term 3-4, were designed to serve as a self-assessment tool for learners. They represented a wide repertoire of skill sets the learners were supposed to have acquired at the end of these Terms. The researcher used the A & K Framework to achieve the fourth objective by assessing any evidence of an incremental introduction of HOTS in the English FAL exercises through the four Terms. This was done to see if the skills in the workbook were moving from the basic ones to the sophisticated ones through Term 1-2 and Term 3-4.

### **3.5 QUALITY CRITERIA**

Plowright (2011: 135) argues that the aim of a research study is to present results that are as true as possible a reflection of the real event. To achieve this in this qualitative

study, four of Lincoln and Guba's criteria were utilised, specifically: credibility, transferability, dependability and confirmability, to ensure the quality.

### **3.5.1 Credibility**

Denscombe (2014) posits that the essence of credibility in research is the extent to which a researcher can demonstrate the accuracy of the data collected. Lincoln and Guba (1985) state that the qualitative nature of confirming credibility is by first doing member checking into the findings, that is, seeking confirmation from the participant (s) concerning the accuracy of the data collected. Secondly, is by using observation, as one of the data collection technique to validate the findings from the interviews conducted. Thirdly, credibility in qualitative research can be achieved by employing the reported findings in previous conducted studies and what literature says about those findings. Fourthly, that the activities used to obtain data are clear and will increase the probability that credible findings will be produced. Finally, the use of a 'devil's advocate' and supervisor to verify if coding was conducted robustly.

In this study, the member checking into the findings was used to increase credibility. The researcher ensured that feedback was gained on the data. This was done by asking the participants themselves to interpret and give their own conclusions on the data that was interpreted by the researcher first. Lincoln and Guba (1985) consider this method that is, member checking into the findings, as 'the most critical technique for establishing credibility.'

### **3.5.2 Transferability**

Schwandt (2015) avers that transferability has to do with the researcher's responsibility for providing readers with adequate information on the case studied. He continues to say that it helps readers to establish the degree of similarity between the case studied

and the case to which findings might be transferred. Accordingly, to achieve transferability in this study, the researcher provided a detailed and rich description of the settings studied (see Chapter 3, Section 3.2.2: 36). This was done to provide the reader with adequate information so that they are able to judge the applicability of the findings to other settings that they know (Seale, 1999).

### **3.5.3 Dependability**

Dependability focuses on the process of the inquiry and the inquirer's responsibility for ensuring that the process was logical, traceable and documented (Lincoln & Guba, 1985). This is measured by the standard to which the research is conducted, analysed and presented. Therefore, the researcher reported in detail each process in this study, to enable an external researcher to repeat the inquiry and achieve similar results. Indeed, this has strong potential to ensure that the research findings are consistent and could be repeated. Another researcher could evaluate the application of HOTS by language teachers in other schools.

### **3.5.4 Confirmability**

Lincoln and Guba (1985) argue that confirmability is concerned with establishing the fact that data and interpretation of the inquiry were not merely the figments of the inquirer's imagination. They go on to say that, it calls for linking assertions, findings, interpretation and so on to the data themselves in readily discernible ways. An external researcher does this or a third-part examiner to judge the case by studying the data collected during the original inquiry (Schwandt, 2015).

Hence, in this study the researcher ensured that a clear audit trail was completed throughout the study to demonstrate how each decision about the evaluation of the application of HOTS by teachers and/or workbooks was made. This enabled a judgment about the dependability of procedures employed by the researcher in this study and the extent to which the findings of the study are confirmable.

## **3.6 ETHICAL CONSIDERATIONS**

In conducting the study, the researcher complied with a number of ethical considerations. Firstly, he ensured that he received permission from the three principals to do the study at their schools, as well as from the circuit managers. In the same manner, he asked for a letter of ethical clearance from the University of Limpopo Turfloop Research and Ethics Committee (TREC). The researcher explained the purpose of the study clearly to the participants (teachers) so that they could willingly give their informed consent, which Berg (1998) describes as the knowing consent of individuals to participate as an exercise of choice. The letter gave full details of the purpose, goals, and rationale and research procedures of the study to the participants. Moreover, the participants were assured of confidentiality and that their reputation would not be compromised (Gorman & Clayton, 2005:43). The researcher did that by ensuring long-term data security, after the data collection requirements have been satisfied. The researcher did not in any way deceive the participants since the giving out of the incorrect information to the research subjects is in direct violation of ethical standards in research (Strydom, 2002).

### **3.7 LIMITATION OF THE STUDY**

The study was small-scale research limited to three schools in the Mankweng Circuit of Limpopo Province. It made use of qualitative data and is identified as a classroom based research study. Equally, the sample selection was limited to five participants and one Grade 4 English workbook, which was not a sufficient sample to ensure transferability of the results to other intermediate English FAL classes. However, as it is the case with all other case studies, the aim of this exploratory case study was not to generalise but to gain a better understanding of the phenomenon, the teaching of HOT and its associated skills, that was under investigation.

### **3.8 CONCLUSION**

This chapter explored the qualitative research methodology that was employed to collect data. It also underpinned the research design, the population, sampling procedure, data collection procedure that were followed in the study. Measures that

were followed in order to enhance the quality of the research results were also outlined. The following chapter will present, analyse and interpret the data collected through the procedures described in this chapter.

## **CHAPTER 4: PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA**

### **4.1 INTRODUCTION**

The previous chapter provided the procedures followed in the study for data collection and analysis. These procedures were organised in a way that would assist in achieving the aim of the study, which was to establish whether the teaching of HOTS is encouraged in the intermediate English FAL classes in Mankweng circuit. Therefore, this Chapter presents, analyses and interprets the data collected through the procedures described in chapter 3. This will be organised in two sections, the first one provides a brief background about the participants of the semi-structured interviews, and thereafter it discusses the responses from semi-structured interviews using Tesch's method of analysis for qualitative data (Tesch, 1990: 117). A detailed description of this method has been given in Chapter 3.

The second section presents document analysis (the Grade 4 English Workbook) using Anderson and Krathwohl's (2001) framework as an analysis sheet. The themes and subthemes for document analysis were sourced from the content of the Grade 4 English workbook; the researcher, as in the case of semi-structured interviews, did not formulate them.

### **4.2 SEMI-STRUCTURED INTERVIEWS WITH TEACHERS**

When designing the interview schedule, the researcher formulated the first question by following a protocol by Jacob and Ferguson (2012) which advises that interviews should start with the basics. It directs that at the beginning of the interviews, the interviewer should ask interviewees basic background data about them (things such as name,

where they grew up, their qualifications etc.) as a way of warming them up. Hence, the researcher in the study focused his first question on the teachers' profile, which is illustrated in the Table below. However, for the sake of confidentiality, which is part of ethical considerations, teachers' names were coded.

**Table 4.1: Teacher Profile**

√= Applicable; N= Not applicable

Teacher Code	Age Range	Teachers' Level of Qualifications					
		3 year Diploma	3 Year Degree	Ed Degree	4 Year Qualifications	Grade Taught	Years of Experience
<b>A</b>	<b>26-33</b>	√	N	N	N	6A,B &C	7
<b>B</b>	<b>30-39</b>	N	√	√	N	6	15
<b>C</b>	<b>40-49</b>	√	N	N	N	6	25
<b>D</b>	<b>40-49</b>	√	N	N	N	5	24
<b>E</b>	<b>40-49</b>	√	N	N	N	4	26

The interview data were sourced from five teachers as indicated in the Table 4.1 above. Four of them were females and one male; the one respondent was between 26 and 33 years old, one between 30 and 39 years and three between 40 and 49 years of age. Of the five respondents, four held a 3-year diploma; one boasted an Honours Degree, and no one obtained a Master's degree. Likewise, this Table indicates that four teachers have been teaching intermediate English FAL for over 7 years. It is assumed that experienced teachers would be more familiar with various teaching philosophies and approaches than novice teachers. In addition, the assumption might be that they may understand more clearly which philosophies are most effective to develop HOT in learners and know which skills are needed for the 21st century that is, HOTs, more so than the novice teachers would do. However, Mankga (2004:2) reports in his research that the majority of experienced teachers are not willing to unlearn old teaching methods

to accommodate new ones. The findings of this study found Mankga's claim to be true. This is because almost all the teaching approaches of the five teachers in the study were informed by old and not by new pedagogics, which were discussed in detail in Chapter 2 under the theoretical framework. These findings are discussed comprehensively in Chapter 5.

### **4.3 CATEGORIES, THEMES AND SUBTHEMES FROM SEMI-STRUCTURED INTERVIEWS**

Following the process of data analysis, using Tesch's method (see Chapter 3, Section 3.4.1:39), the semi-structured interviews with the five teachers, resulted in the emergence of three main categories and seven themes as well as three subthemes. The first general question that led to the emergence of the first category namely *Dominant focus of the English FAL teachers' pedagogic practices* was "What are the most important skills you want your learners to acquire when teaching them the English language?" Under this category, two (2) themes emerged. The first theme is *form-based instruction*, which was generated from the question: "Are there any other skills that you incorporate when teaching language content?" The second theme under the same category is *language content only*; this was extracted from this question: "What are the most important skills you want your learners to acquire when teaching them the English FAL?" From the second theme came out one (1) subtheme which is *teachers' preferred activities* (see Table 4.2: 48).

Furthermore, the second category that was generated from the responses of semi-structured interviews' is *conceptualisation of HOT*. This is from a question: "What is your understanding of HOT and how can you incorporate it in your classroom practices?" From this category emerged three (3) themes, the first theme is *vague understanding of HOT*, which was established from the question "What is your understanding of HOT and how can you incorporate it in your classroom practices?" The second theme is *insufficient awareness and use of Bloom's taxonomy*. This was generated from the question asked by the researcher specifically: Are you aware of the Bloom's taxonomy? *The lack of thinking frame* is the third theme, which was drawn from



the question: “Do you have any thinking frame or theory-based framework that you use when teaching your learners English FAL?” (see Table 4.3:49).

Moreover, the third category that was drawn out from the semi-structured interviews’ responses is *curriculum* and *classroom context*. This category was obtained from the question: Do you see your classroom practices informed entirely by CAPS’s specifications regarding the teaching of English FAL? The first theme under this category is: *discrepancy between curriculum’s aims and what is taught in the classroom*, which was deduced from the question that is “Do you think that CAPS is encouraging the teaching of HOTS in your phase and if it does, how do you implement that in your classroom?” The second theme is *barriers to teaching HOT*, which was deduced from the question “Are there any barriers to the teaching of HOT?” Two sub-themes emerged from this theme viz, *poor foundation phase* and *teachers’ pedagogic cognition*. These subthemes emerged from the responses of the second category’s question (see Table 4.4:53).

Each of these three (3) categories, seven (7) themes and three (3) subthemes is discussed with appropriate quotations from the participants (five intermediate English FAL teachers sampled for this study). Equally, applicable literature is cited as a control to the findings of this research and to enrich the analysis process. The Table 4.2 below presents the categories and themes.

**Table 4.2: Categories, themes and subthemes (from semi-structured interviews)**

<b>CATEGORIES</b>	<b>THEMES</b>
4.3.1 Dominant focus of the English FAL teachers’ pedagogic practices	4.3.1.1 Form-based instruction 4.3.1.2 Language content only (i) Teachers’ preferred activities
4.3.2 Conceptualisation of HOT	4.3.2.1 Vague understanding of HOT 4.3.2.2 Insufficient awareness and use of Bloom’s taxonomy 4.3.2.3 The lack of thinking frame

4.3.3 Curriculum and classroom context	4.3.3.1 Discrepancy between curriculum’s aims and what is taught in the classroom 4.3.3.2 Barriers to teaching HOT (i) Poor foundation phase (ii) Teachers’ pedagogic cognition
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**4.3.1 Dominant Focus of the English FAL Teachers’ Pedagogic Practices**

Table 4.3 below presents the first category, namely, Dominant focus of the English FAL teachers’ pedagogic practices with its themes and subthemes. The themes and sub-themes were extracted from the teachers’ responses.

**Table 4.3: Dominant focus of the English FAL teachers’ pedagogic practices**

Categories	Themes
4.3.1 Dominant focus of the English FAL teachers’ pedagogic practices	4.3.1.1 Form-based instruction 4.3.1.2 Language content only (i) Teachers’ preferred activities

**4.3.1.1 Form-based instruction**

One of the questions the participants were asked was “What are the most important skills you want your learners to acquire when teaching them the English language?” The question was designed with the aim to assess whether the English teachers’ teaching approaches were influenced by SCT or FP principles. The commonality of voices that emerged across all the participants was that they want their learners to master the language structure. Below are some of the remarks they made:

*“At their stage what is most important is to equip them with the basics, for example, if they can differentiate between parts of speech, to know that this is a verb and this is a noun; to know that we have plural and singular and also know tenses. These are the only skills that they must know at the stage (Grade 4 teacher).”*

*“I want them to know how to construct sentences, that is why I emphasizes grammar skills when I teach them (Grade 5 teacher).”*

*“We focus more on grammar with my learners; we read a story first, even if they do not understand the content, I want to see if they have identified nouns, then the next day from the same story we may focus on verbs or past tense, and this can take a week while focusing on the same story. Because I want them to be rooted in the grammar of English (Grade 6 teacher).”*

The above responses provided enough evidence that the teachers were not mediators of cognitive skills that is HOTS. This is because the skills they wanted to develop in their learners were located within form-based instruction. Form-based instruction as a teaching approach cannot develop HOTS in learners since its central focus is to teach elements of grammar. When using this approach grammatical structures are sequenced and rules are taught inductively based on the assumption that language is habit formation (Murcia 1991:4). This means that form-based instruction is informed by behaviourist paradigm of learning that is FP, which Ertmer and Newby (1993) observe that it cannot develop HOTS in learners. This instruction specifically, Form-based which is grammar oriented, does not involve a greater depth of processing (such as language development, problem solving and inference generating, critical thinking, and so on), hence its incapability to encourage HOTS in learners.

Thus, the findings above strongly suggest that the English FAL teachers were not guided by SCT whose principles require an expert (teacher) to move a novice (learner) from basic knowledge to sophisticated knowledge. In this case, to help the learners to move from the knowledge of grammatical structure to the higher cognitive levels uses of the language. On the one hand, it was clear that based on their own responses, they were guided by the principles of FP whose principles cannot provide adequate explanation to the acquisition of HOTS.

#### 4.3.1.2 Language content only

All the participants point out that language content is their top priority when teaching English FAL. The focus on language content only means lessons are not fashioned in a way that a clear emphasis on skillful thinking is included into content instruction so that learners can improve their cognitive processes. These responses were based on the question: Are there any other skills that you incorporate when teaching language content? One of the participants remarked:

*“Other skills such as ability to make logical arguments will be acquired at their later stage of learning. What is most important now is for them to master language conventions like parts of speech (Grade 5 teacher).”*

The other English teachers also commented:

*“For me the mastery of the language content is my primary focus; you can try to include other skills like brainstorming ideas, but if they don’t have basic knowledge of language structure, it won’t work. So I have decided to dedicate most of my lessons on building their knowledge of the language content, like knowing the use of countable and uncountable nouns (Grade 6 teacher).”*

*“Other skills are important but the language content must take precedence over any other skill when teaching English, especially when teaching learners who are not the first speakers of English (Grade 4 teacher).”*

*“They should be taught language conversions first; they must now how to use demonstrative pronouns, use nouns that only have plural form and so forth. As they advance into senior and FET phase they would have acquired solid base to learn other various skills (Grade 6 teacher).”*

These findings confirm the findings of several researchers that were discussed in the review of the literature. One such researcher is Rajendran (2001) (See Chapter 2, Section 2.6: 29) who finds that there is general misconception that sufficient understanding is gained only through the teaching of knowledge, that is, language content. However, Perkins (1981), as indicated in the literature, disagrees with this view by stating that the primary aim of education should be on building the basis, that is, a deeper understanding of knowledge in order to facilitate the active use of that knowledge and skills.

These findings indicate that the English FAL teachers, by focusing only on the language content, fail to use any of the three approaches for teaching thinking, namely direct instruction, teaching for thinking and teaching of thinking skills using the infusion approach. These approaches were discussed in detail in Chapter 2 (See Section 2.6: 29). Nonetheless, their central argument is that content should not be taught separately from thinking skills when teaching thinking. This strongly suggests that English FAL teachers do not encourage HOTS in English FAL by focusing only on the language content. They have probably never been made aware of how important it is and/or not taught how to include such skills in their lessons.

In addition, this teaching approach does not embrace the principles of SCT, which views language as the basis of the conceptual ecology of an individual and as an instrumental vehicle to mediate HOTS (Vygotsky, 1978). Conversely, it is clear that this approach is informed by behavioural principles which are associated with FP.

**(i) Teachers' Preferred Activities**

The following subtheme emerged from the theme above: teachers' preferred activities - most of the participants' preferred activities that did not promote HOTS. The following are their comments regarding the activities they preferred:

*“Let’s say after story reading I would ask them to orally retell it using their own words, sometimes ask them restate the main idea. I prefer these because they improve speaking skills in my learners (Grade 4 teacher).”*

*“I want them to acquire the four language skills, that why most of the time I make them read a story aloud, thereafter, I ask those who were listening to describe its content, you see when do that I make sure they improve both their reading and listening skills (Grade 5 teacher).”*

*“I may be wrong but I think reading and listening they did them in lower grades. Hence, I focus mostly on speaking and writing; I we do with them activities such as discussion of characters from stories we read or sometimes retell those stories in sequence. Because I have realised that they struggle mostly with these two (Grade 6 teacher).”*

*“On a regular basis, I make them read poems and identify rhyming words in it so that they improve their listening skills. Sometimes they read and discuss timetable to improve their reading skills; I also ask them to write diary entries for that reason (Grade 6 teacher).”*

Most of the participants’ preferred activities focused on the four components of language learning: speaking, listening, reading and writing. These four components of language teaching can be used to encourage HOT in learners. In Terms of writing Graham, Harris and Olinghous (2010) (See Chapter 2, Section 2.7.2: 33) state that writing can enhance learners’ executive control. The same, through effective listening and speaking learners can collect and synthesise information, solve problems, construct knowledge... (DBE, 2011c).

However, the findings above confirm the findings of Rajendran (1998) in that the four language components are still underutilised in promoting HOTS in many classrooms. This is true because when all participants’ preferred activities are placed alongside

Bloom's taxonomy, it is clear that all of them are connected to LOT categories. For instance, verbs such as *describe, identify, retell* etc. which were dominant in the teachers' preferred activities, belong to LOT categories. Moreover, this is clear that teachers in this instance did not apply ZPD sufficiently to move learners from basic English language skills, that is, LOT skills, to sophisticated ones which are HOTS.

### 4.3.2 Teachers' Conceptualisation of HOT

One of the objectives of the study was to assess the intermediate English FAL teachers' views and their conceptualisation of how HOTS can be infused in the classroom practices. Table 4.4 below presents the third category, viz, Teachers' Conceptualisation of HOT under which three themes emerged specifically *vague understanding of HOT, insufficient awareness of and use of Bloom's Taxonomy and the lack of thinking frame*. These themes are discussed below the Table 4.4.

**Table 4.4: Teachers' conceptualisation of HOT**

Categories	Themes
4.3.2 Teachers' conceptualisation of HOT	4.3.2.1 Vague understanding of HOT 4.3.2.2 Insufficient awareness of and use of Bloom's taxonomy 4.3.2.3 The lack of thinking frame

#### 4.3.2.1 Vague understanding of HOT

One of the questions in the semi-structured interviews was: what is your understanding of HOT? This question was asked with the aim to establish whether the participants have a clear conceptualisation of HOT. The following responses were provided to this question:

*“I can’t plainly tell what HOT is, but my little understanding is that it about teaching learners to think better. By adding higher order before thinking, it may mean that you teach them better skills of thinking (Grade 5 teacher).”*

*“I guess it has to do with teaching learners to think. But I find it challenging to form any clear picture in my mind of what it is and also how to exactly teach that to my learners. I can’t give a direct and clear answer to the question, is too abstract to me (Grade 6 teacher).”*

*“My understanding of that is bit hazy; I can’t give a definite answer to that. I find it bit complicated to explain to be honest (Grade 6 teacher).”*

Moseley et al. (2004) contend that conceptualisation involves the relating of concepts to one another so as to form arguments, criteria, explanations, principles and so on. They further state that it includes processes such as explaining and defining which is what demonstrates comprehension. These findings above confirm the research results by Moseley et al. (2004) that theories and some concepts (such as HOT in this case) are often too complex or too abstract for classroom application. The findings also point to some other cases where teachers might ‘know’ about them but cannot apply them or teach someone to apply them.

The conclusion here is that if the teachers do not fully comprehend the concept of HOT they cannot apply SCT principles satisfactorily when teaching the English language. This is true because this social theory of learning claims that learning is a mediated process in which individuals develop as they interact with their environment (Vygotsky, 1962), in this instance learners interacting with their teachers. Since is evident here that the teachers did not have a good grasp of the concept of HOT, it means that in their teaching practices the mediation process to develop HOT in their learners is severely limited.

#### **4.3.2.2 Insufficient awareness of Bloom’s Taxonomy**



Though Barrett's Taxonomy, not Bloom's Taxonomy, is prescribed in CAPS for the teaching of English as FAL, the researcher found this question appropriate in the study. This is because the extensive literature reviewed by the researcher indicates that Bloom's Taxonomy has been adapted for classroom use as a planning tool and it continues to be one of the most universally applied models. This is well encapsulated by Ramos et al. (2013) who contend that the well-established hierarchical arrangement of HOTS in the teaching field is Bloom's Taxonomy than any other. The rationale for asking the question was based on the literature reviewed. Also the expectation of the awareness of the Taxonomy by the teachers is justified by the literature review. The five teachers were asked if they were aware of the Taxonomy as a way of assessing their conceptualisation of HOT. The participants gave the following answers to this question:

*"Yes I know about Bloom's taxonomy, even though I wasn't aware that it was revised. There are times when I try to model my teaching on it but not always. This is because they are some of the other things I don't understand about it, especially how to connect it with my teaching (Grade 6 teacher)."*

*"I heard of it but I do not really use it as a guide when I teach, but I think some of its aspects are part of CAPS's pacesetter that we use in our classes every day, in a way I might be using it indirectly when I teach (Grade 5 teacher)."*

*"I sometimes talk about it with my colleagues; honestly speaking, I rarely refer to it when I teach. I would say is because I have never received enough training on how to use it (Grade 4 teacher)."*

*"We were slightly introduced to it when I was still at a college, but since I started teaching I have never used it consciously (Grade 6 teacher)."*

These findings are consistent with what the national teachers' union (SADTU) cited in Molefi (2015) that teachers are not adequately trained to adapt to the rigours of CAPS

which requires them to teach learners cognitive skills (which are related to higher-level hierarchy of Bloom's cognitive processes). As such, the inductive inference that could be drawn from these findings above is that the participants in the study have insufficient awareness of Bloom's Taxonomy and even less knowledge of how to effectively use it to infuse HOTS in their English FAL teaching practices.

The conclusion from the findings above is that if the English teachers lack in the knowledge and the use of Bloom's Taxonomy, they cannot mediate the teaching of HOT. In the same manner, the clear implication here is that the principles of SCT do not underlie their teaching practices.

#### **4.3.2.3 The lack of thinking frame**

A Thinking frame is a representation intended to guide the process of thought, supporting, organising and catalysing that process. This may be verbal, imagistic or kinaesthetic (Perkins, 1981). The participants were asked if they have a specific thinking frame or theory-based framework that they use when teaching their learners English FAL. The following are the responses that they gave:

*"I am guided by CAPS's pacesetter in all my interactions with my learners; I would say is the only guide I have when teaching my learners (Grade 4 teacher)."*

*"No, I don't have any thinking frame that I use when teaching English to my learners. Everything I do with my learners is based on the pacesetter that has been provided to us by CAPS (Grade 6 teacher)."*

*"I don't have any in particular, but sometimes I try to teach them to think. For example, I'd sometimes ask them to analyse and break down information, but what I've notice so far is that our learners find it difficult to learn those mentally demanding skills (Grade 6 teacher)."*

*“By and large I’m guided by pacesetter when I teach, but to say that I have thinking frame I would be lying, because I don’t have any specific one that I use (Grade 5 teacher).”*

It is clear from the participants’ responses above that they did not have any specific thinking framework that guides them when teaching English. This is regardless of a number of available thinking frames such as Quellmalz Framework of Thinking Skills, Biggs and Collis’s SOLO Taxonomy, Paul’s model of critical thinking and the like mentioned by several researchers (cf. Ramos et al., 2013; Moseley et al., 2004). In addition, out of the five teachers none of them mentioned Barrett’s Taxonomy, which is endorsed in CAPS as a framework for teaching cognitive skills. This is a strong indication that they do not know about it and by extension do not know how to apply it.

To a greater extent these findings confirm what Pica (2000) claims that in the traditional English language teaching methodology, the combination of language and thinking skills has been peripheral. It is also abundantly clear that much of the teachers’ pedagogic practices were not undergirded by the principles of SCT as a learning theory, which has its focus on developing individuals by moving them from basic knowledge or skills to higher level of knowledge or skills. This is true because according to cognitive development theorists such as Perkins (1981), Swartz and Parks (1994) and others, thinking skills cannot be instilled in learners without the use of a clear-thinking frame.

#### **4.3.3 Curriculum and Classroom Context**

Some of the general aims of the CAPS document are to produce learners who can: identify and solve problems and make decisions using critical and creative thinking; and to enable them to collect, analyse, organise and critically evaluate information (DBE, 2011b). These are HOTs, as Table 4.5 below presents the third category, viz; *curriculum and classroom context* to show the dichotomy that exists between the curriculum’s goals and the reality in many classroom settings.

**Table 4.5: Curriculum and classroom context**

Categories	Themes
4.3.3 Curriculum and classroom context	4.3.3.1 Discrepancy between curriculum's aims and what is taught in classroom 4.3.3.2 Barriers to the teaching HOT (i) Poor foundation phase (ii) Teacher cognition

#### **4.3.3.1 Discrepancy between curriculum's aims and what is taught in classrooms**

Teachers are expected to implement the national curriculum's stipulations, although they are allowed to customise those specifications to their own contexts, which is called lived curriculum (Booyse & Du Plessis, 2014). Still, they should be guided by the principles that undergird the broader national curricular framework when doing that. It was evident in the review of the literature that amongst other things, the CAPS document's aims is to produce learners, who at the exit of secondary school, level would have thoroughly developed their HOTS. In trying to establish if these aims are being realised in the classroom setting, the researcher drafted one of the questions for the semi-structured interviews thus: do you think CAPS is encouraging the teaching of HOTS in your phase and if it does, how do you implement that in your classroom? The following are teachers' comments regarding curriculum's specifications about teaching HOT.

*"I think it does because it says we must teach our learner to be creative, but the curriculum designers do not understand what we are dealing with in rural schools, if a learner in grade 5 can't read or write how can you teach them to think, you spend a lot of time dealing with the basics (Grade 5 teacher)."*

*"I think it does, but even though one tries to teach them, our children struggle to understand simple things, for example, if you ask them to read a story and explain its content, only few try but the rest will just look at you after they have read. So to teach them thinking it will be even more challenging for them (Grade 4 teacher)."*

*“As a teacher you have to use your own discretion, even if CAPS requires us to implement certain things like thinking, is not always possible. To be honest I try to engage them in discussions and role plays, but you end up doing those things since most of them will not participate (Grade 6 teachers).”*

These findings confirm what Hornberger and Chick (2001) observe, namely, that the majority of classrooms are characterised by ‘safe-talk’, that is, teachers ask learners dumb questions so that children can give the answer without thinking much or deeply. In the main, the findings point to the discrepancy between the aims of CAPS document and everyday teacher practices in the classroom setting. This is a clear discrepancy, because some of CAPS’s goals are to produce learners who are equipped with higher cognitive skills; learners who can identify and solve problems and make decisions using critical and creative thinking; and those who can collect, analyse, organise and critically evaluate information. However, the findings of this study lend credence to what Marzano (1993) claims that as powerful as teaching and learning strategies (which are informed by curricula aims) could be, an even more powerful set of them may be under-utilised.

#### **4.3.3.2 Barriers to the teaching HOT**

The participants in the semi-structured interviews were asked the following question: Are there any challenges that you encounter in teaching this language? The responses to this question shed light on some of the barriers to the teaching of HOT. One of the barriers that was clearly pointed out by the participants is the following:

##### **(i) Poor foundation phase**

All the participants showed strong concerns about the severe unpreparedness of the learners due to a weak and poor foundation phase. They pointed out that this is what makes it difficult for their learners to be taught any other skills beyond the basic ones. Regarding this, the participants had the following to say:

*“Our learners can’t read and write properly; it is even difficult for them to copy from the blackboard.”* She showed me one of her students’ classwork/homework book. I could not read even a single sentence. Then she continued, *“It is very challenging; I do not want to lie and this is because of poor foundation these learners had received (Grade 4 teacher).”*

*“The problem is foundation phase, when they come to intermediate phase they should have been fully prepared to cope with the curriculum’s demands of this phase. But we still have to deal with what was supposed to have been done in lower grades (Grade 6 teacher).”*

*“The foundation phase did not equip them to be ready for tasks in this phase; they struggle to understand very simple things. I think the department of education must do something about that (Grade 5 teacher).”*

*“I think we need well trained teachers at the foundation phase who can give learners solid base that they can build on as they progress through higher grades (Grade 6 teacher).”*

A number of researchers concur with these claims made by the participants. Steyn, Harris and Hartell (2011:583) observe that there is a serious shortage of well-trained, qualified teachers for early childhood and the foundation phase. In the review of the literature Macdonald and Burroughs (1991) also pointed out that in the foundation phase English language lessons do not fully prepare learners for instruction in English in a broad range of subjects after an early-exit that is, when they start Grade 4.

These findings suggest that a poor foundation phase does not adequately build learners’ cognitive abilities to grasp abstract concepts, that is, HOTS in the later stage of their academic endeavours. Another important aspect that transpired in the findings is that if learners in the intermediate phase still struggle with the skills that they were supposed to have been equipped with in foundation phase. This strongly points out that

SCT principles do not underlie the South African primary schooling system. This is because the learners' both cognitive and language abilities could have improved as they go through the phases, which is central focus of SCT.

#### **4.3.3.3 Teachers' pedagogic cognition**

Using the 8 steps of Tesch's inductive, descriptive open coding technique for data analysis process allowed the researcher to capture nuances such as attitudes, beliefs, self-confidence and frustration from the sound recordings. The entire process is described in Chapter 3. The teachers' attitude and cognition about the teaching of HOT in English FAL is clearly reflected in the analysis of the data. The following are their comments, which revealed their attitude and beliefs, in respect to the teaching of HOT:

*"At this level, the only thing that these learners must learn is language structure. They are still young to do difficult things like debate (Grade 4 teacher)."*

*"I do not think they are ready for deep learning, you can't engage them in deeper discourses, which is why I focus most of my lessons more on the simpler things (Grade 5 teacher)."*

*"These learners, I don't think that their intellectual abilities are already fully prepared at this stage to deal with difficult tasks such as talking about tension or conflict after they have read a story. For now, if they can identify the characters from the story, I believe that would be enough (Grade 6 teacher)."*

*"You know, one thing that bothers me a lot about my learners is that, they don't have enough vocabulary to articulate ideas beyond sentence level. I try to include more reading activities in my class, so that they can expand their vocab, but is like they don't have parents or guardians who can encourage them to read in their home environment (Grade 6 teacher)."*

Borg (2003) finds that teachers' pedagogic cognition that is, stores of beliefs, knowledge, theories, assumptions and attitudes, their attitudes and cognition, have a huge influence on what teachers deem necessary to be learned. The overriding attitudes and beliefs from these findings above are in total contrast to the fundamental principles of SCT, which views learning as a process that can be mediated from an early age. SCT also claims that language precedes thinking and it views language as the basis of conceptual ecology of an individual and as an instrumental vehicle to mediate HOTS. Contrastingly, their beliefs are congruent to cognitive constructivism by Piaget's (1952) theory, which holds that learning process ought to be sequenced based on the levels of thinking capacities that the learners have already acquired. This is probably why the teachers delay the teaching of thinking to later stages of learners' learning process.

The teachers' attitude and beliefs are inconsistent with what UNISA (2017) finds, namely, that learners at any grade at school have the ability to function at all six levels or domains of Bloom's taxonomy. Church (2017) also holds the same view that infants and toddlers use mostly the first two levels, but by age, 3 children can use all six levels. Definitely, the teachers' attitude and beliefs appear to be one of the barriers to the effective teaching of HOTS in the intermediate English FAL classes in Mankweng Circuit.

#### **4.4 DOCUMENT ANALYSIS (GRADE 4 ENGLISH WORKBOOK)**

In the case of document analysis, the researcher took the time to study the Grade 4 English Workbook. This was an attempt to achieve three of the objectives that were set for this study: firstly, *to identify if the instructional verbs in the 4th graders' English Workbooks promote HOTS*. The second objective was *to check if the questions in the exercises of Grade 4 English Workbook were pitched in LOT or HOTS categories of Bloom's Taxonomy of cognitive domain*. The third objective was *to determine any evidence of an incremental introduction of HOTS in the English FAL exercises through the four Terms*.



The Department of Basic Education (DBE) in Limpopo Province delivers these English Workbooks to the schools in Mankweng Circuit. They are developed for two Terms of the academic year and are the extensions of the intermediate English textbooks in that, exercises given in class are to be completed in the workbooks. This could be done in the form of classwork or homework. In the main, the arrangement of their content is reflected in the form of blank and lined columns. Text is minimal and is integrated with images, visual presentations and drawings such as match figures; much of the information is presented in graphic or pictorial images. They have few articles and games; most of their exercises are focused on story reading and questions. Some of those stories are in the form of cartoon strips. Equally, they contain a number of grammar exercises such as cloze tests. Each task comes with an instructional manual, which could be a combination of text and non-textual representation.

As it was pointed out in Chapter 3 and in the introduction that Anderson and Krathwohl's (2001) framework will guide the discussion of the exercises in Grade 4 English workbook's themes and subthemes. It will aid in assessing whether the exercises were moving learners through the process of learning, from the most basic *remembering* to the most *sophisticated* or complex *creating/designing*. This will be achieved in two-fold ways. Firstly, the instructional verbs of the exercises will help in locating one of the six categories of thinking to which the activities are linked. Secondly, the types of questions from the exercises will reveal the level of thinking the learners are engaged in. The exercises will reveal whether the questioning pattern covers all the six levels of the taxonomy, thereby fosters HOT. This will also enable the findings to corroborate or differ with Walker and Corben's (2002) claim that 60% of questions in a typical classroom setting are about recalling facts, while 20% of the questions are focusing on procedures and only just about 20% require any kind of HOT. The presentation and discussion of the English Workbook's themes and subthemes are provided below:

#### **4.5 PRESENTATION OF THEMES AND SUBTHEMES OF THE GRADE 4 ENGLISH WORKBOOK**

The presentation, analysis and interpretation of themes and subthemes for four Terms are provided below.

**Table 4.7: English Workbook for Grade 4**

Term 1-2		Term 3-4	
<b>Theme 1: The things we do</b>	<b>Theme 2: Fact and fiction (Animal tales)</b>	<b>Theme 1: Caring for ourselves and others</b>	<b>Theme 2: People, creatures and the weather</b>
Subtheme: Reading a story	Subtheme: Reading Information text	Subtheme: Stories	Subtheme: Stories to celebrate
<i>Mundu's running shoes (story)</i>	<i>Girl rescues her brother</i>	<i>Bird in the tree house</i>	<i>My cousin's wedding</i>

#### **4.5.1 Theme 1 and subthemes for Term 1-2 and theme 1 and subthemes for Term 3-4**

Theme 1 for Terms 1 and 2 named 'The things we do' as indicated in Table 4.6 has one of its subtheme as '*Reading a story*'. This subtheme was about story reading and had two weeks allocated for it. The story that was read under this subtheme was titled "*Mundu's running shoes.*" On the other hand, one of the subthemes of Theme 1 for Term 3 to 4 was labelled '*Caring for ourselves and others*' was '*Bird in the tree house*'. This is the title of the story that was read from this subtheme and that was allocated for 3 weeks. These subthemes are analysed and interpreted below. Thereafter, a checklist from the English Workbook that was designed to evaluate learners' progress will be analysed and interpreted. As a way of avoiding repetition Theme 2 for Terms 1 to 2 as well as Theme 2 for Terms 3 to 4 will not be discussed. This is because all the themes

above were based on the same subthemes that is, story reading and most of the exercises were similar.

#### **4.5.1.1 Subtheme: Reading a story ( Mundu's running shoes)**

Mundu's running shoes is the story about a Grade 4 female learner who was an excellent runner and she practised running every day. However, she did not have running shoes. One Saturday, she went to a sports shop in town to buy the running shoes with the money she had been saving, but the shoes cost more than she saved. She was very sad that she could not afford them. The owner of the shop Mrs Masondo noticed the sadness in her eyes. She approached her and said to her "If you win the race, I will let you have the running shoes for free." "But if you don't win you will need to pay for them." She won and kept the shoes. The following are the questions that were asked after this story was read and their discussion:

- (1) Who was the story about?
- (2) What did Mundu have that was special?
- (3) What happens in the story?
- (4) What does this sentence tell us about Mundu "She ran and ran until her legs ached"?

Possible answers: A. that she had pain in her legs; B. that she would never give up and C. that she needed shoes to run.

- (5) Why did Mundu say the shoes were magical?

Possible answers: A. they encouraged her to practice; B. they were a gift and C. her feet no longer hurt.

According to Anderson and Krathwohl's (2001) framework, as indicated in Table 4.4, the first two questions are associated with the LOT category, namely, *remember*. This is because the first one requires the learners to remember the name of the character that was read about in the story. Likewise, the second question requires the learner to recall something. The third question is also related to LOT category, specifically

understanding: the learner is asked to explain. Activities done within these categories do not encourage HOT.

The last two questions are aligned to a HOT level, specifically evaluating, as they ask the learners to give their opinions. This is so because the answer was not explicitly given. However, the possible answers provided in this instance might have minimised the right opportunity for them to use their high levels of thinking without clues. This made the questions fall in quadrant B of Cummins' model of thinking as indicated in (see Chapter 2 Section). In this quadrant, learning activities are cognitively demanding but linguistically undemanding since they are context embedded, that is, have many clues. This is in contrast with quadrant D, in which activities are both cognitively and linguistically demanding. When teaching HOT in English or any other the latter will be more effective than the former, since it strengthens both cognitive and linguistic abilities simultaneously.

#### **4.5.1.2 Subtheme: Stories (*Bird in the tree house*)**

'Bird in the tree house' is the story about two 11-year old girls who built a tree house in their garden. This story was selected since it was read towards the end of Term 3. The logic behind its selection was to get a wider spectrum across all these Terms to verify if there was any variation in questioning pattern across these Terms. The discussion of the questions that were asked after the story had been read is provided below. The following questions were asked:

- (1) What did the soccer boys want to do?
- (2) How did the girls feel when they saw that two eggs had fallen?
- (3) Describe what happened when the little bird flew for the first time. Firstly, secondly, thirdly.
- (4) Do you think Mundu and Ann are caring? Why?

All four questions are linked to LOT categories. The first one requires learners to describe whereas the second asks them to explain. The third one is clear by the use of

the verb 'describe' - it wants the learner to describe. These verbs for three questions are found in LOT categories i.e. *remember* or *understand*. The fourth question is also associated with LOT levels. The learners were asked to explain what was stated in the story. It was clearly stated in the story that the girls were more caring than the boys in the story, because they (girls) took care of the egg in a nest until it was hatched. This question then falls in the second category of thinking, namely, *understanding*.

#### 4.5.2 Skill Checklists

The checklists below serve as a comprehensive measure of the outcomes expected from all the exercises that were done in Grade 4 English workbooks for four Terms. These checklists were designed as a self-assessment tool for learners. They represent a wide repertoire of skill sets the learners were supposed to have acquired at the end of these Terms. The left column consists of the questions the learners asked themselves at the end of Term 2 and Term 4. The right columns show the levels of thinking at which they were set, based on Bloom's revised taxonomy. They will help in achieving one of the objectives of the study, which sought to identify any evidence of the incremental promotion of HOTs in Grade 4 English FAL Workbook.

**Table 4.8: Skill checklist for Term 1-2**

<b>A learner asking himself/herself: Can I...</b>	<b>Type of Thinking</b>	<b>Categories of thinking</b>
Match synonyms	LOT	Remember
Identify the plot of the story.	LOT	Understand
Identify nouns and adjectives.	LOT	Understand
Discuss questions based on the text.	LOT	Understand
Explain a bar chart.	LOT	Understand
Write a description of a place.	LOT	Understand
Recognise word families	LOT	Remember
Label a map according to a key	LOT	Remember
Identify verbs ending in-ed	LOT	Understand

Use conjunctions and/because	LOT	Apply
Identify rhyming words in a poem	LOT	Understand
Role play the story	LOT	Apply
Use collections	HOT	Apply
Retell a story in sequence	LOT	Remember
Use verbs ending in-ed	HOT	Apply
Match words with their meaning	LOT	Remember
Recognise word families	LOT	Remember
Use conjunctions to join sentences	HOT	Apply
Use a mind map for planning	HOT	Apply

The checklist above in Table 4.8 shows that most of the skills the Grade 4 English FAL learners were expected to acquire at the end of Term 2 were LOT in nature. Only few of them were pitched at HOT levels. It could be concluded from this checklist that the teaching of Grade 4 English FAL was more concentrated on LOTs.

**Table 4.9: Skill checklist for Term 3-4**

<b>A learner asking himself/herself: Can I...</b>	<b>Type of Thinking</b>	<b>Categories of thinking</b>
Fill in the ocean names according to a key	LOT	Remember
Match flags with the correct country	LOT	Remember
Identify adjectives and adverbs in a sentence	LOT	Understand
Use adjectives to describe things	HOT	Apply
Present a TV weather broadcast	HOT	Apply
Write sentences in the future tense using will or am going	HOT	Apply
Use the simple present tense	HOT	Apply
Use a mind map to guide a story	HOT	Apply
Read a timetable	HOT	Apply
Use comparative adjectives	HOT	Apply

Identify uncountable nouns	LOT	Understand
Identify the beginning, the middle and the end of a story	LOT	Understand
Ensure correct subject-verb agreement	HOT	Apply
Join sentences using <i>and</i> or <i>then</i>	HOT	Apply
Predict stories from book cover	HOT	Evaluate
Distinguish meanings of homophones	HOT	Analyse
Punctuate text with missing speech marks	HOT	Apply
Rewrite sentences into direct speech	HOT	Apply
Plan to write a story using a mind map.	HOT	Design

The checklist in Table 4 indicates that there was apparent incremental introduction of HOT in the exercises for Term 3 to 4. However, most of the HOT exercises were pitched at the third category of cognitive domain i.e. *apply*. Only few exercises were set at the other three HOT categories namely, *analyse*, *evaluate* and *create/design*. This implies that this incremental introduction of HOTs in the third Term and the fourth Term was not all-encompassing of HOTs.

#### 4.6 SUMMARY

This chapter provided the analysis and discussion of the five intermediate English FAL teachers' views and their conceptualisation of the teaching of HOTs in their classrooms. This was done with the aim of achieving one of the objectives of the study specifically, to establish the teachers' views and their conceptualisation of HOT, and its application in their classrooms. From the analysis of the data of the semi-structured interviews with the teachers, four main categories, seven themes and three subthemes emerged from the process. The first category was 'Dominant focus of the English FAL teachers' pedagogic practices' and its two subthemes were the *form-based instruction* and *language content only*. From language content only as a theme, one subtheme emerged, namely, teachers' preferred activities. What was clear from the analysis of

this category and the themes and their subthemes was that HOT is taught too little and inadequately in three intermediate English FAL classes in the Mankweng Circuit.

Equally, the discussion of the second theme namely *language content only*, indicated that the participants' tendency to focus *on language content only* does not promote HOT. This is because this focus fails to embrace the three approaches for teaching thinking, namely direct instruction, teaching for thinking and teaching of thinking skills using infusion approach (Swartz & Parks, 1994) (see Chapter 2, Section 2.6: 20). In the same way, the discussion of the teachers' preferred activities showed that most of the activities in the participants' classroom practices were not structured to promote HOT. Most of them were associated with the LOT categories of Bloom's revised taxonomy. Furthermore, the discussion under the second category namely, teachers' conceptualisation of HOT, showed that the teachers in the study had poor and vague conceptualisation of HOT.

In the same vein, the discussion of the second theme *insufficient awareness and use of Bloom's revised taxonomy* to be precise, pointed out that the participants in the study had inadequate awareness of Bloom's taxonomy. The discussion also revealed that because of this inadequate awareness they could not apply the taxonomy in their English FAL teaching practices. The third theme was the lack of thinking frame. From the discussion about it, it also became clear that the participants in the study did not have any thinking frame that guided them when teaching English FAL, which strongly suggested that they do not teach HOTs to their learners.

The third category was 'curriculum and classroom context'. What became apparent in the discussion of this category was that there is inconsistency between the aims of CAPS document and everyday teaching practices in the classroom setting. The second theme, namely, *barriers to the teaching of HOT* shed light on the barriers to the effective teaching of HOT. A poor foundation phase was identified as one of the barriers since it does not adequately prepare learners' cognitive abilities to deal with abstract concepts that are taught in the intermediate phase. The third theme was *teachers' pedagogic*



*cognition*, what came out from the discussion of the theme was that the teachers' pedagogic cognition also served as a barrier to effective teaching of HOT.

In the case of document analysis, Anderson and Krathwohl's (2001) framework was used to discuss the exercises in the Grade 4 English workbook. What was apparent in the discussion was that most of the instructional verbs in the Grade 4 English workbook were connected to LOT categories. Secondly, like in the case of instructional verbs, it was shown that most of the questions asked in the Grade 4 English workbook were in LOT categories.

Finally, the skill checklists for both Term 1-2 and Term 3-4 of the Grade 4 English workbook were compared and contrasted. The aim was to establish if there was any steady introduction of HOTs in the Grade 4 English workbook exercises. There was indeed a marginal incremental but insufficient introduction of HOTs in the English FAL exercises throughout the four Terms-as expected, more in Terms 3 and 4 as in Terms 1 and 2. This was true because the skills that were expected to have been acquired by the learners at the end of Term 3-4 were slightly in favour of HOT levels than it was in Term 1-2.

#### **4.7 CONCLUSION**

In this chapter the presentation, analysis and interpretation of the data collected through the procedures described in Chapter 3 were provided; it discussed the three categories, seven themes and three subthemes that emerged from the data analysis with the aim to establish the teachers' views and their conceptualisation of HOT and its application in their teaching practices. Equally, it used Anderson and Krathwohl's (2001) framework to discuss the exercises in the Grade 4 English workbook. Chapter five will present the findings, recommendations, and conclusions of the study.

## **CHAPTER 5: FINDINGS AND RECOMMENDATIONS**

### **5.1 INTRODUCTION**

This chapter qualitatively presents the findings of the study, recommendations and conclusions. This will be done in line with the aim of the study, which was to establish whether HOT is encouraged in the intermediate English FAL classes in Mankweng Circuit.

### **5.2 RESEARCH OBJECTIVES**

This study was set on the following objectives:

- To assess the teachers' views, their conceptualisation of how HOT and its application in their classroom practices.
- To find out if the instructional verbs in the 4th graders' English Workbook promote HOT.
- To check if the questions in the exercises of Grade 4 English Workbook were pitched in LOT or HOT categories of Bloom's Taxonomy of cognitive domain.
- To determine any evidence of an incremental introduction of HOTs in the English FAL exercises through the four Terms.

### 5.3 FINDINGS OF THE STUDY

The study based on the literature review anticipated that the teaching of LOTs is more dominant than the teaching of HOTs in the intermediate English FAL classes in Mankweng Circuit. This expectation was to a greater extent proven correct. This was true as all three categories with their seven themes and three subthemes, emerged from the data collection through semi-structured interviews with the teachers, clearly indicated that LOTs were more dominant than HOTs in the teachers' classroom practices. Likewise, even though the comparison of the two skill checklists for Term 1-2 and Term 3-4 indicated a slight incremental introduction of HOTs in the exercises of the Grade 4 English FAL Workbook, it was clear that the five teachers did not teach them (HOTs) to their learners. In the same way, almost none of the five teachers knew how to apply HOTs in their classroom practices.

From the first category, dominant focus of the English FAL teachers' pedagogic practices, the researcher found that the central focus of the teachers' teaching practices was more on LOTs than HOTs. The most preferred and used method of teaching by all the five intermediate English FAL teachers was the *form-based instruction*; the emphasis was more on the mastery of English grammar than thinking skills. This method is rooted in the principles of old pedagogics that do not encourage HOT in the learners. One of the important findings from the second theme, which is language content, only was that the teachers do not use any of the approaches for teaching thinking in their classes. The researcher found that all the participants in the study focussed more on content without incorporating other skills such as HOTs in their pedagogic practices. Similarly, their preferred activities indicated that they dedicate most of their classroom time on elementary aspects of language learning than on developing the learners' higher-levels of thinking abilities.

Furthermore, it was clear that all the participants found it difficult to conceptualise HOT and its application in their classes; their understanding of it was vague and by extension, their knowledge of how to infuse it in their interactions with the learners was

poor. In the same vein, the study found that the participants had an insufficient awareness and use of Bloom's taxonomy. Out of the five participants, two of them asserted that they were aware of it, however, they acknowledged that they hardly ever use it when teaching English FAL. The study also found that the participants did not have any thinking frame for guiding them in the teaching of the English FAL. This lack of thinking frame, based on cognitive development theorists, it is clear that they do not teach HOTS to their learners. These theorists claim that thinking skills cannot be instilled in learners without the use of clear thinking frame.

In the case of curriculum and classroom context as a third category from the semi-structured interviews with the teachers, it was apparent that there is a large discrepancy between CAPS's aims and what is taking place in the classroom setting. The findings from the participants revealed that the learning and teaching of the English FAL takes place at far lower cognitive levels than it is anticipated by CAPS's general aims. The primary focus of those aims is to produce learners who can operate at higher-level hierarchy of Bloom's cognitive processes at the exit of secondary school. However, as one of the participants admitted that most of her classroom activities are concentrated on the basics, rather than on HOTS ones.

What is more, the analysis of data from the semi-structured interviews revealed that there were barriers to effective teaching of HOTS. There were voices of commonality across all the five intermediate English FAL teachers that a poor and weak foundation phase severely underprepares learners and thus they are unable to ably cope with the learning demands of the intermediate phase. The teachers pointed out that they spend a great deal of time doing the basics that were supposed to have been learned in the lower grades. This is one of the barriers to the effective teaching of HOTS, which several other researchers also found it to be a hurdle for learners' future academic endeavours. As Bloom's Taxonomy claims, each level of thinking provides thinking material for the next level above. This strongly suggests that the foundation phase does not provide learners with 'thinking skills' nor the skills to think for the next level that is the intermediate phase.

The study also found that the teachers' pedagogic cognition was also one of the barriers to the teaching of HOT. It was apparent from the participants' views and comments that their pedagogic cognition was based on old pedagogies; there was overwhelming evidence that their attitudes and beliefs were in total contrast to the fundamental principles of SCT. For instance, most of them believed that the learners' intellectual abilities were not at the appropriate levels to deal with HOT activities. Their cognition was consistent with cognitive constructivism based on Piaget's (1952) theory of 'the origin of intelligence in children'; it claims that knowledge is acquired sequentially based on its level of difficulty. Likewise, Piaget's theory holds that language must be learned first before teaching thinking. Several scholars such as Green (2014) regard this claim to be an impediment to the teaching of HOT.

Additionally, there were important findings in the case of document analysis. By using Bloom's revised taxonomy by Anderson and Krathwohl (2001) to discuss the exercises in the Grade 4 English Workbook, the study found the following. Firstly, regarding the instructional verbs that were used in the Workbook, there was largely a balance between those that fall within the LOT categories and those that fall in HOT categories of thinking. For instance, learners were instructed to identify, play, define, match, recognise, reproduce label and so on. These verbs belong to the first category of thinking, namely, *remember*, LOT verb. They were also asked to classify, discuss, summarise, give examples, describe, compare etcetera. As indicated on Bloom's revised taxonomy, these verbs are associated with the second category of thinking, namely, *understanding*.

However, they were also asked to demonstrate, role-play, apply, dramatise, choose, illustrate, show, sketch, use and the like. These verbs fall within the third thinking category, which is, *apply*. Based on Bloom's revised taxonomy, the instructional verbs in this category are of HOT nature since learners engaged at this level, demonstrate the ability to use learned material or to implement material in new and concrete situations. Nonetheless, one of the important findings was that most of the HOT instructional verbs

in the Grade 4 English FAL Workbook exercises were pitched only at this level, that is, *apply*. Instructional verbs like *categorise*, *discriminate*, *contrast*, *appraise*, *distinguish*, *examine*, *question*, were minimal. These belong to the fourth category of thinking, namely, *analyse*. In the same way, instructional verbs such as *argue*, *judge*, *predict*, *value*, *estimate*, *conclude*, *critique*, *assess* were used to a lesser degree. These verbs are linked to the fifth category of thinking, that is, *evaluate*. In the same way, verbs such as *combine*, *produce*, *design*, *compile*, *construct*, *assemble*, *formulate*, *create*, *devise* which are located within the sixth thinking category specifically *design* or *create*, were barely used in the Grade 4 English Workbook. Based on Bloom's revised taxonomy these three categories (*analyse*, *evaluate* and *design*) are classified as the HOT levels of thinking.

Furthermore, the study established that most questions asked in the Grade 4 English Workbook were of LOT nature. Most of them were pitched at LOT levels, that is, *remembering* and *understanding*. To illustrate, learners had to answer questions that begin with *who*, *what*, *when*, *where* from the stories in which those answers were explicitly given. Information gap questions were also more dominant. This questioning pattern belongs to the first category of thinking on Bloom's revised taxonomy, that is, *remember*. Other dominating questions were linked to the second thinking category, namely, *understand*. Regarding this, learners had to describe a place in the story, summarise a story in their own words, etcetera. The researcher found that even in a few cases where the questions were related to HOT categories of thinking, the questions had many clues or props that prevented the learners from using their abstract cognitive abilities to their fullest in English. As Cummins (1984) aptly put it, the questions were "more context-embedded (with many clues) and not context-reduced (with fewer clues)."

Finally, though the two skills checklists indicated that there was an incremental introduction of HOTs in the English FAL exercises, the most salient findings of this study are that LOTs were more dominant in the five intermediate English FAL classrooms. Firstly, this incremental introduction of HOT in the exercises of the Grade 4 English FAL Workbook did not include the three top levels of Bloom's revised taxonomy of cognitive

domain namely *analyse*, *evaluate* and *create/design*. Secondly, the five intermediate English FAL teachers who were interviewed in the study, did not have a clear conceptualisation of HOT and how to apply it in their classroom practices.

#### **5.4 RECOMMENDATIONS**

- This qualitative study took place in the Mankweng Circuit in Limpopo Province. I recommend that any future study relating to the teaching of HOT in English FAL be conducted either in another circuit in the Province or outside the Province as this exploratory case study's results cannot be generalisable to other circuits and provinces.
- Likewise, I recommend that the research population for the future research projects in relation to the topic be defined in a different manner. Instead of targeting the intermediate phase, I recommend that other phases such as senior or FET phase be targeted. This might yield completely different results and assist in addressing this problem in an effective and different way.
- The findings of the study indicated that all five teachers who participated in the study, have a poor conceptualisation of HOT and its application in the teaching of English FAL. The findings also revealed that they do not have any thinking frame that guides them in their teaching practices. For that reason, I recommend that intermediate English FAL teachers be involved, by the DBE, in the development of theory-based thinking skill frameworks and be taught how to use them in their teaching practices.
- I recommend that the DBE improve the content of the Grade 4 Workbooks, so that it encourages the teaching of HOT at all six levels of Bloom's revised taxonomy. This is because, as pointed out in the findings, their instructional verbs and questions along with the skills learners are expected to acquire from them, are of LOT in character.
- I recommend that DBE in its curricular efforts use well known taxonomy such as Bloom's Revised Taxonomy of cognitive domain as a guide for teaching HOT.

This is because none of the five teachers knew anything about Barrett's Taxonomy despite the fact that it is endorsed in the CAPS as a framework for teaching cognitive skills. The second reason is because even though three of the five teachers in the study struggled to conceptualise how Bloom's Revised Taxonomy of cognitive domain can be utilised in promoting HOT in their pedagogic practices, they seemed to have a slight understanding about it.

## **5.5 CONCLUSIONS**

The aim of the study was to establish whether the teaching of HOT is encouraged in the intermediate English FAL classes in Mankweng circuit. This chapter presented the findings of the study, recommendations and conclusions. The presentation focussed on addressing the aim of the study, which was set around four objectives. The first objective sought to assess the teachers' views, their conceptualisation of how HOT, and its application in their classroom practices. This chapter argued that all the five intermediate English FAL teachers showed poor conceptualisation of HOT and of its application in their classroom practices. In the case of the second objective, which sought to find out if the instructional verbs in the Grade 4 English FAL Workbook promote HOT, this chapter indicated that the most of instructional verbs in the English Workbook did not encourage HOT. It showed that those that were promoting HOT were pitched at the third category of the cognitive domain, that is, apply only. Likewise, it also pointed out that most questions of exercises in Grade 4 English Workbook were in LOT categories. It showed also that there was little incremental introduction of HOTs in the exercises of the Grade 4 Workbook through Term 1-2 and Term 3-4. In conclusion, the findings in this chapter provided strong evidence that there was inadequate teaching of the HOTs in the intermediate English FAL classes in Mankweng circuit.



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## **APPENDICES**

### **Appendix A: DEPARTMENT OF BASIC EDUCATION'S ETHICAL APPROVAL**



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**DEPARTMENT OF  
EDUCATION**

Ref: 2/2/2      Enq: MC Makola PhD      Tel No: 015 290 9448      E: [maikuluf@edu.limpopo.gov.za](mailto:maikuluf@edu.limpopo.gov.za)

Magwele P  
University of Limpopo  
Private bag X1106  
Sovenga  
0727

**RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH**

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1. The above bears reference.
2. The Department wishes to inform you that your request to conduct research has been approved. Topic of the research proposal: **“TEACHING OF HIGH ORDER THINKING SKILLS IN THE INTERMEDIATE ENGLISH (FAT) CLASSROOM”**.
3. The following conditions should be considered:
  - 3.1 The research should not have any financial implications for Limpopo Department of Education.
  - 3.2 Arrangements should be made with the Circuit Office and the schools concerned.
  - 3.3 The conduct of research should not anyhow disrupt the academic programs at the schools.
  - 3.4 The research should not be conducted during the time of Examinations especially the fourth term.
  - 3.5 During the study, applicable research ethics should be adhered to: in particular the principle of voluntary participation (the people involved should be respected).
  - 3.6 Upon completion of research study, the researcher shall share the final product of the research with the Department.

REQUEST FOR PERMISSION TO CONDUCT RESEARCH. MAGWELEP

CONFIDENTIAL

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Cnr. 113 Biccard & 24 Excelsior Street, POLOKWANE, 0700, Private Bag X9489, POLOKWANE, 0700  
Tel: 015 290 7600, Fax: 015 297 6820/4220/4494

*The heartland of southern Africa - development is about people!*

- 4 Furthermore, you are expected to produce this letter at Schools/ Offices where you intend conducting your research as an evidence that you are permitted to conduct the research.
- 5 The department appreciates the contribution that you wish to make and wishes you success in your investigation.

Best wishes.



**Ms NB Muthelwana**  
**Head of Department**

26/06/17

**Date**

REQUEST FOR PERMISSION TO CONDUCT RESEARCH. MACWELP

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## Appendix B: UNIVERSITY OF LIMPOPO'S ETHICAL APPROVAL



**University of Limpopo**  
Department of Research Administration and Development  
Private Bag X1106, Sovenga, 0727, South Africa  
Tel: (015) 268 2212, Fax: (015) 268 2306, Email:noko.monene@ul.ac.za

### TURFLOOP RESEARCH ETHICS COMMITTEE CLEARANCE CERTIFICATE

**MEETING:** 02 November 2017

**PROJECT NUMBER:** TREC/294/2017: PG

**PROJECT:**

**Title:** Teaching higher order thinking skills in English second language Learning classroom: A case of three intermedicate classrooms in Mankweng Circuit  
**Researcher:** PM Magwele  
**Supervisor:** Dr RV McCabe  
**Co-Supervisor:** N/A  
**School:** Languages and Communication Studies  
**Degree:** Masters in English Studies

  
**PROF. TSE MASHEGO**  
**CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE**

The Turfloop Research Ethics Committee (TREC) is registered with the National Health Research Ethics Council, Registration Number: REC-0910111-031

**Note:**

- i) Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee.
- ii) The budget for the research will be considered separately from the protocol.  
PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.

## Appendix C: INTERVIEW SCHECDULE FOR TEACHERS

### Section A: Bio Data

#### PERSONAL INFORMATION

Name	Mokolo Peter Magwele
Father's Name	France Chepane Magwele
Mother's Name	Magatha Molobe Magwele
Date of birth	09/11/1983
Identity Number	831109 5917 087
Gender	Male
Marital Status	Single
Nationality	South African
Religion	Christianity
Hobbies	Reading
Languages Known	English and Sepedi

#### CONTACT DETAILS

Residential Address	Ga-Mothapo (Ga-Magoa) Stand No 164
Cellphone Number	0766076557
Email Address	<a href="mailto:petermagwele7@gmail.com">petermagwele7@gmail.com</a>

#### EDUCATIONAL QUALIFICATIONS

High School	Grade 12
Makgobaketse Secondary School	2002
<b>BA</b> (in Contemporary English and Multilingual studies)	Degree Class (average 69%)
University of Limpopo	2013
<b>BA</b> in English studies (Hons)	Degree Class (average 69%)
University of Limpopo	2014

## Section B: INTERVIEW TRANSCRIPTS FOR TEACHERS

**Transcript: Interview 1**

**Duration: 25 minutes**

**Date: 18 October 2017**

**Interviewer: Researcher**

**Interviewee: Grade 4 teacher**

**Interview Setting:** *the interview was conducted in a quiet classroom of the school where the teacher works. It was on Wednesday 11:30 AM morning.*

**(Interview start)**

**Researcher:** Thank you so much for allowing me to interview you.

**Grade 4 Teacher:** (0.1) Only pleasure.

**Researcher:** How long have you been teaching English?

**Grade 4 Teacher:** “(Coughing)” I have been an English teacher for 25, no for good 26 years now.

**Researcher:** It has been many years.

**Grade 4 Teacher:** YES, it has been many years.

**Researcher:** Are there any challenges that you encounter in teaching this language?

**Grade 4 Teacher:** (0.1) They have been quite a number of them. I big challenge in teaching English to our learners I that they don't read or have anyone to read for them in their homes, and you know sir English learners do better when they love reading books.

**Researcher:** Could you briefly describe the content and structure to your lessons?

**Grade 4 Teacher:** (0.2) Look sir, almost everything we do is in the CAPS's pacesetter, but because of the challenges we face with our learners, I spend most of my time teaching my learners aspects of grammar.

**Researcher:** What are the most important skills you want your learners to acquire when teaching them the English language?

**Grade 4 Teacher:** (0.6) I think the end goal of teaching any language is to develop learners become good writers, readers, listeners and speakers. At their stage what is



most important is to equip them with the basics, for example, if they can differentiate between parts of speech, to know that this is a verb and this is a noun; *um* to know that we have plural and singular and also know tenses. These are the only skills that they must know at the stage.

**Researcher:** What are the skills do you want or hope that your learners will acquire from your lessons?

**Grade 4 Teacher:** (0.4) Four language skills are very important to me and these are the skills I would want to see in my learners. Also, I think these are the only skills that they must know at the stage, other complex skills they will be taught as they progress into other phases of their schooling.

**Researcher:** Are there any other skills that you incorporate when teaching the language content?

**Grade 4 Teacher:** (0.6) Not to say that other skills aren't important but for me as an English teacher, I do believe that the language content must take precedence over any other skill when teaching the language, especially when teaching learners who are not the first speakers of English.

**Researcher:** What types of activities do you engage your learners in?

**Grade 4 Teacher:** (0.4) Let's say after story reading I would ask them to orally retell it using their own words, sometimes ask them restate the main idea. I prefer these because they improve speaking skills in my learners.

**Researcher:** Do you organise them sequentially according to their level of their difficulty, if you do why and if you do not could you give the reason?

**Grade 4 Teacher:** (0.3) I start with the easy ones and move to the difficult ones.

**Researcher:** What is your understanding of HOT?

**Grade 4 Teacher:** (0.4) I have no clear understanding of that, I haven't really studied anything related to that.

**Researcher:** What is your understanding of HOTS?

**Grade 4 Teacher:** (0.4) Even though I don't have a clear answer; I think that may be skills that are linked to thinking.

**Researcher:** Do you think CAPS is encouraging the teaching of HOTS in your phase and if it does, how do you implement that in your classroom?

**Grade 4 Teacher:** (0.5) I think it does, but even though one tries to teach them, our children struggle to understand simple things, for example, if you ask them to read a story and explain its content, only few try but the rest will just look at you after they have read. So to teach them thinking it will be even more challenging for them.

**Researcher:** Do you think is important to teach high order thinking skills, if yes why?

**Grade 4 Teacher:** (0.2) We have so many young people these days who live irresponsibly, I think if our learners are taught to think better they may not be part of that statistics.

**Researcher:** Do you think, thinking skills appear automatically in learners or they need to be encouraged?

**Grade 4 Teacher:** (0.3) No, I don't think they appear automatically without being taught.

**Researcher:** Do you know about Bloom's Taxonomy and do you even try to use some of its principle?

**Grade 4 Teacher:** (0.2) I sometimes talk about it with my colleagues; honestly speaking, I rarely refer to it when I teach. I would say is because I have never received enough training on how to use it.

**Researcher:** Do you have any thinking frame or theory-based framework that you use when teaching your learners English FAL?

**Grade 6 Teacher:** (0.4) I am guided by CAPS's pacesetter in all my interactions with my learners; I would say it is the only guide I have when teaching my learners. As for the framework that guides me to teach thinking, I don't think I have any.

**Researcher:** Thank you so much for your time.

## **TRANSCRIPT: INTERVIEW 2**

**Duration:** 25 minutes

**Date:** 18 October 2017

**Interviewer:** Researcher

**Interviewee:** Grade 6 teacher

**Interview Setting:** *the interview was conducted in quiet staff room of the school where the teacher works. It was on Wednesday 10:30 AM morning.*

**(Interview start)**

**Researcher:** Thank you so much for allowing me to interview you.

**Grade 4 Teacher:** (0.1) You are most welcome.

**Researcher:** How long have you been teaching English?

**Grade 6 Teacher:** (0.1) Let's see, I've been English teacher for 25 years.

**Researcher:** Are there any challenges that you encounter in teaching this language?

**Grade 6 Teacher:** (0.4) Challenges of teaching the types of our learners are many; the first one is that they have very poor foundation phase. This makes it difficult to teach them the content of the intermediate phase. They are also many other challenges such as lack of seriousness in our learners' part, not doing home works, which will help us to know how they are progressing in their learning of English. They are so many.

**Researcher:** Could you briefly describe the content and structure to your lessons?

**Grade 6 Teacher:** (0.4) We as teachers follow only what is the CAPS's pacesetter.

**Researcher:** What are the most important skills you want your learners to acquire when teaching them the English language?

**Grade 6 Teacher:** (0.4) I want my learners to be able to write, read and speak as well as becoming good listeners. These are really skills I want to develop in my learners.

**Researcher:** What types of activities do you engage your learners in?

**Grade 6 Teacher:** (0.5) We do activities that have potential to enrich their grammatical skills, word order and verb tenses.

**Researcher:** Are there any other skills that you incorporate when teaching the language content?

**Grade 6 Teacher:** (0.3) As I have told you in the previous question the skills I want to develop in my learners, my lessons are more focused on grammar activities. Even though we are guided by CAPS's pacesetter, I make sure that I concentrate most of my lessons on the basics of the language. I may be wrong, but I believe this approach will produce in my learners the four language skills.

**Researcher:** Do you organise them sequentially according to their level of their difficulty, if you do why and if you do not could you give the reason?

**Grade 6 Teacher:** (0.3) We must start from simple activities to difficult ones.

**Researcher:** What is your understanding of HOT?

**Grade 6 Teacher:** (0.3) I have some difficulty in explaining that perfectly. I can say teaching good thinking perhaps.

**Researcher:** Do you think CAPS is encouraging the teaching of HOTS in your phase and if it does, how do you implement that in your classroom?

**Grade 6 Teacher:** (0.3) I think it does, but even though one tries to teach them, our children struggle to understand simple things, for example, if you ask them to read a story and explain its content, only few try but the rest will just look at you after they have read. So to teach them thinking it will be even more challenging for them. Another thing is that even us teachers, to be honest with you; we are not trained to teach our learners thinking skills.

**Researcher:** Do you think is important to teach high order thinking skills, if yes why?

**Grade 6 Teacher:** (0.4) It is important because we can have better learners who can change the world if they are good thinkers.

**Researcher:** Do you think, thinking skills appear automatically in learners or they need to be encouraged?

**Grade 6 Teacher:** (0.4) No, I think like any skills they don't, I do think we must encourage them.

**Researcher:** Do you know about Bloom's Taxonomy and do you even try to use some of its principle?

**Grade 6 Teacher:** We were slightly introduced to it when I was still at a college, but since I started teaching I have never used it consciously.

**Researcher:** Do you have any thinking frame or theory-based framework that you use when teaching your learners English FAL?

**Grade 6 Teacher:** (0.3) No. I don't have that, I only use CAPS's pacesetter.

**Researcher:** Thank you so much for your time.

### **TRANSCRIPT: INTERVIEW 3**

**Duration:** 25 minutes

**Date:** 20 October 2017

**Interviewer:** Researcher

**Interviewee:** Grade 6 teacher

**Interview Setting:** *the interview was conducted in quiet office of the school where the teacher works. It was on Friday 10:30 AM morning.*

**(Interview start)**

**Researcher:** Thank you so much for allowing me to interview you.

**Grade 5 Teacher:** My pleasure.

**Researcher:** How long have you been teaching English?

**Grade 5 Teacher:** (0.5) Is about 24 years.

**Researcher:** Are there any challenges that you encounter in teaching this language?

**Grade 5 Teacher:** (0.3) Teaching learners who have weak foundation phase, that is the main one for me.

**Researcher:** Could you briefly describe the content and structure to your lessons?

**Grade 5 Teacher:** (0.3) Most of what we do with our learners is in CAPS's pacesetter, it is the guide we use, but you know our learners force us to concentrate on certain skills. I often focus on the structure of the grammar, because I think this is one area our English learners should know very well.

**Researcher:** What are the most important skills you want your learners to acquire when teaching them the English language?

**Grade 5 Teacher:** (0.4) Four language skills, I want them to become good speakers so that they do well in activities such as debate. I also want them to become good readers and writers.

**Researcher:** What are the skills do you want or hope that your learners will acquire from your lessons?

**Grade 5 Teacher:** (0.4) I do want my learners acquire the four language skills, that why most of the time I make them read a story aloud, thereafter, I ask those who were listening to describe its content, you see when do that I make sure they improve both their reading and listening skills.

**Researcher:** Are there any other skills that you incorporate when teaching the language content?

**Grade 5 Teacher:** (0.5) Yes, What is most important now is for them to master language conventions like parts of speech. As for other skills such as ability to make logical arguments will be acquired at their later stage of learning.

**Researcher:** What kind of instruction do you use in your lessons and why?

**Grade 5 Teacher:** (0.4) I focus more on grammar skills when I teach my learners despite the fact that we are guided by pacesetter. I personally think that is unfair to teach our learners other skills when they don't have solid foundation, anyway that will also be a waste of time because they won't understand them.

**Researcher:** What types of activities do you engage your learners in?

**Grade 5 Teacher:** (0.6) I may be wrong but I think reading and listening they did them in lower grades. Hence, I focus mostly on speaking and writing activities, I do with them activities such as discussion of characters from stories we read or sometimes retell those stories in sequence. Because I have realised that they struggle mostly with these two.

**Researcher:** Do you organise them sequentially according to their level of their difficulty, if you do why and if you do not could you give the reason?

**Grade 5 Teacher:** (0.2) It depends what you teach, but according to their level of difficulty I would say. The reason is they need to know simple things before you teach them what is difficult.

**Researcher:** What is your understanding of HOT?

**Grade 5 Teacher:** (0.8) "(laughing)" I can't plainly tell what HOT is, but my little understanding is that it about teaching learners to think better. By adding higher order before thinking, it may mean that you teach them better skills of thinking. Do I teach it; I think I try to teach my learners to think? Isn't it that the whole purpose of schooling is about that?

**Researcher:** Do you think CAPS is encouraging the teaching of HOTS in your phase and if it does, how do you implement that in your classroom?

**Grade 5 Teacher:** (0.4) I think it does because it says we must teach our learners to be creative, but the curriculum designers do not understand what we are dealing with in rural schools, if a learner in grade 5 can't read or write how can you teach them to think,

you spend a lot of time dealing with the basics. So to even thinking about teaching them other important skills is not gone work.

**Researcher:** Do you think is important to teach high order thinking skills, if yes why?

**Grade 5 Teacher:** (0.3) Yes, I think they must be taught, so that our learners become better thinkers.

**Researcher:** Do you think, thinking skills appear automatically in learners or they need to be encouraged?

**Grade 5 Teacher:** (0.5) I think they need to be encouraged, even though may be difficult to know how to do it.

**Researcher:** Do you know about Bloom's Taxonomy and do you even try to use some of its principle?

**Grade 5 Teacher:** (0.3) I heard of it but I do not really use it as a guide when I teach, but I think some of its aspects are part of CAPS's pacesetter that we use in our classes every day, in a way I might be using it indirectly when I teach.

**Researcher:** Do you have any thinking frame or theory-based framework that you use when teaching your learners English FAL?

**Grade 5 Teacher:** (0.4) I haven't heard of any, by and large I'm guided by pacesetter when I teach, but to say that I have thinking frame I would be lying, because I don't have any specific one that I use.

**Researcher:** Thank you for taking time out to answer my questions.

**Transcript: Interview 4**

**Duration: 25 minutes**

**Date: 20 October 2017**

**Interviewer: Researcher**

**Interviewee: Grade 6 teacher**



**Interview Setting:** *the interview was conducted in a classroom of the school where the teacher works. It was on Wednesday 11:30 AM morning.*

**(Interview Start)**

**Researcher:** Thank you so much for allowing me to interview you.

**Grade 6 Teacher:** No, it's okay.

**Researcher:** How long have you been teaching English?

**Grade 6 Teacher:** (0.3) I have been an English teacher for 7 years.

**Researcher:** Are there any challenges that you encounter in teaching this language?

**Grade 6 Teacher:** (0.5) There are quite a lot, I think you would agree that to teach English to learners who are not the first speakers of English presents many challenges. You need to develop confidence in them so that they can participate in activities that require them to speak. They cannot read, so you need to teach them how to read.

**Researcher:** Could you briefly describe the content and structure of your lessons?

**Grade 6 Teacher:** (0.4) Most part of the content and structure of my lessons is based on grammar related activities of the English language.

**Researcher:** What are the most important skills you want your learners to acquire when teaching them the English language?

**Grade 6 Teacher:** I think as English teachers that the most important skills that we should teach our learners is to read, write, speak and listen.

**Researcher:** Are there any other skills that you incorporate when teaching the language content?

**Grade 6 Teacher:** (0.5) In the phase that my learners are, they should be taught language conversions first, this means they must now know how to use demonstrative pronouns, use nouns that only have plural form and so forth. These are the skills concentrate on when interacting with my learners. As they advance into Senior and FET phase they would have acquired solid base to learn other various skills.

**Researcher:** What kind of instruction do you use in your lessons and why?

**Grade 6 Teacher:** I ask them to read stories and when they are done, I ask them questions based on what we read.

**Researcher:** What are the skills do you want or hope that your learners will acquire from your lessons?

**Grade 6 Teacher:** The four language skills, I think that are most important.

**Researcher:** What types of activities do you engage your learners in?

**Grade 6 Teacher:** (0.4) They are many, activities such as role-playing, drama, signing, debate, they are many. But you have to understand that everything that teachers do is based on the pacesetter. Even if you come with your own activities, you must keep on referring from those that are in pacesetter.

**Researcher:** Do you organise them sequentially according to their level of their difficulty, if you do why and if you do not could you give the reason?

**Grade 6 Teacher:** (0.3) I think this is how learning must be, but with our learners you spend too much time teaching them simple things, because I don't think they are ready for difficult things.

**Researcher:** What is your understanding of HOT?

**Grade 6 Teacher:** (0.7) I guess it has to do with teaching learners to think. But I find it challenging to form any clear picture in my mind of what it is and also how to exactly teach that to my learners. I can't give a direct and clear answer to the question, is too abstract to me.

**Researcher:** Do you think CAPS is encouraging the teaching of HOTS in your phase and if it does, how do you implement that in your classroom?

**Grade 6 Teacher:** (0.4) There some other skills I guess in the pacesetter that need our learners to think, though they may not specified as thinking ones, they are somehow related. But you know how that may be difficult to teach rural learners those skills.

**Researcher:** Do you think is important to teach high order thinking skills, if yes why?

**Grade 6 Teacher:** (0.2) I may say yes, is good to have thinking learners.

**Researcher:** Do you think, thinking skills appear automatically in learners or they need to be encouraged?

**Grade 6 Teacher:**(04) I don't think they appear automatically; they need to be taught.

**Researcher:** Do you know about Bloom's Taxonomy and do you even try to use some of its principle?

**Grade 6 Teacher:** (03) I do know about it, how to use it is another story.

**Researcher:** Do you have any thinking frame or theory-based framework that they use when teaching your learners English FAL?

**Grade 6 Teacher:** (0.4) No, I don't have any thinking frame that I use when teaching English to my learners. Everything I do with my learners is based on the pacesetter that has been provided to us by CAPS.

**Researcher:** Thank you for taking time out to answer my questions.

**Transcript: Interview 5**

**Duration: 25 minutes**

**Date: 23 October 2017**

**Interviewer: Researcher**

**Interviewee: Grade 6 teacher**

**Interview Setting:** *the interview was conducted in quiet office of the school where the teacher works. It was on Wednesday 10:30 AM morning.*

**(Interview start)**

**Researcher:** Thank you so much for allowing me to interview you.

**Grade 6 Teacher:** My pleasure sir.

**Researcher:** How long have you been teaching English and how has your experience been so far?

**Grade 6 Teacher:** “(laughing)” is about 15 years now and it has been a journey that is full of constant challenges.

**Researcher:** Are there any challenges that you encounter in teaching this language?

**Grade 6 Teacher:** (0.7) By JUST teaching English in rural school is enough challenge on its own, to teach learners who come from low English input environment is a big challenge. Another THING some of our learners don't have enough support with their school work in their homes, when I mark their home works it shows that they were not helped by someone who is more advanced in English language.

**Researcher:** Could you briefly describe the content and structure to your lessons?

**Grade 6 Teacher:** (0.3) I channel a lot of my energy on important areas, but mostly I focus on of the grammar of English.

**Researcher:** What kind of instruction do you use in your lessons and why?

**Grade 6 Teacher:** (03) Even though I am guided by the CAPS's pacesetter, most of my lessons are oriented around the basics of the language, What I mean is that I teach grammar a lot even in activities that require other skills. The reason is because I want my learners to have a solid ground in English language.

**Researcher:** What are the skills do you want or hope that your learners will acquire from your lessons?

**Grade 6 Teacher:** Four language skills, I want them to become good writers, speakers, listeners and readers.

**Researcher:** Are there any other skills that you incorporate when teaching the language content?

**Grade 6 Teacher:** (0.10) In my lesson I try to include other skills like brainstorming of ideas, but the problem is that most of our learners don't have basic knowledge of

language structure. So I have decided to dedicate most of my lessons on building their knowledge of the language content, like knowing the use of countable and uncountable nouns. I am forced to include in the bulk of my lessons the VERr-r-r-r-r-y rudiments of English language.

**Researcher:** What types of activities do you engage your learners in?

**Grade 6 Teacher:** (0.2) Most of the activities that I give them are connected to four language skills, which are speaking, listening, reading and writing. So I make sure that they read poems and identify rhyming words in it so that they improve their listening skills. Sometimes they read and discuss timetable to improve their reading skills; I also ask them to write diary entries for that reason.

**Researcher:** Do you organise them sequentially according to their level of their difficulty, if you do why and if you do not could you give the reason?

**Grade 6 Teacher:** (0.4) You need to start them with the easier stuff and move to the challenging ones.

**Grade 6 Teacher:** (0.3) I think as a teacher you have to use your own discretion, even if CAPS requires us to implement certain things like thinking, is not always possible. Honestly speaking I try to engage them in discussions and role plays, but you end up doing those things since most of them will not participate.

**Researcher:** What is your understanding of HOT?

**Grade 6 Teacher:** (0.7) To be honest with you, my understanding of that is bit hazy. I really can't give a definite answer to that. Even to say how to implement its principles in my class I find it bit complicated to explain to be honest. I don't know, sometimes I might be teaching it without being even aware. You know that is possible "(laughing)."

**Researcher:** Do you think CAPS is encouraging the teaching of HOTs in your phase and if it does, how do you implement that in your classroom?

**Grade 6 Teacher:** (0.3) I would say that it does because it mentions them, but as you know teaching in rural schools you need to teach learners things that you see that they will improve their English, and most of the time is grammar related aspects of the language.

**Researcher:** Do you think is important to teach high order thinking skills, if yes why?

**Grade 6 Teacher:** (0.4) Yes, I think they need to be taught. Why, our learners may become better people if they think right.

**Researcher:** Do you think, thinking skills appear automatically in learners or they need to be encouraged?

**Grade 6 Teacher:** (0.4) I don't think they can appear if they are not taught, as teachers I think we need to know how to teach them.

**Researcher:** Do you know about Bloom's Taxonomy and do you even try to use some of its principle?

**Grade 6 Teacher:** (04) I heard of it, but I do not use it in my teaching, simple because I don't have any training on how to use it.

**Researcher:** Do you have any thinking frame or theory-based framework that you use when teaching your learners English FAL?

**Grade 6 Teacher:** I would lie sir, I don't have any.

**Researcher:** Thank you so much.

## **Appendix D: PARTICIPANT CONSENT FORM FOR TEACHERS**

**Title of Study:** Teaching higher order thinking skills in English second language learning: the case of three intermediate schools in Mankweng circuit

**Researcher:** Mr. Peter Magwele, University of Limpopo (Department of Languages)

### **Introduction**

You are requested to take part in a research study that investigate the teaching of higher order thinking skills (HOTs) in English second language classroom.

You were selected as a possible participant because the nature of my study requires intermediate English FAL teachers' perspectives.

I ask that you read this form and ask any question that you may have before agreeing to be in the study.

### **Purpose of Study**

The main purpose of the study is to establish whether higher order thinking skills (HOTs) are encouraged in the intermediate English second language learning classrooms; it seeks to determine the extent to which HOTs are used in English second language learning classrooms. In the same way, it attempts to find whether grade 4 English second language teachers have conceptual grounding on how HOTs should be infused in their classroom practices; and also it tries to identify any evidence of HOTs in 4th graders' workbooks. Ultimately, this research may be presented as a paper and subsequently published.

## **Description of the Study Procedures**

If you agree to be in this study, you will be asked to do the following things: after I would have introduced myself and explained fully the aim of my research study to you, I will request you to be interviewed by me. The interview will be about your teaching practices as an English second language teacher in the intermediate phase. Additionally, the interview will include questions about: the content and structure of your lessons; the lesson objectives before you interact with your learners; the kind of instruction you use in your lessons and the reason for using that. Likewise, the questions will be about the skills you want or hope that your learners will acquire from your lessons, the types of activities you engage your learners in and why those activities; and also, the way you organise those activities, whether they are organised sequentially according to their level of their difficulty or not. The duration of the interview will be 25 minutes.

## **What are the possible risks or discomforts to you?**

Your participation in this study does not involve any physical or emotional risk to you beyond that of everyday life. Your reputation in the study will certainly not be compromised.

## **Confidentiality**

This study will be done anonymously; I will not collect or retain any information about your identity. Also, I will ensure that the interview material or schedule, on which I will be writing your responses during the interview, will be kept strictly confidential. This material will also be destroyed after the writing up process, which is data analysis. I will use shredder to do that. Furthermore, I will not include any information in any report that I may publish that would make it possible to identify you.

## **Right to Refuse or Withdraw**



The decision to participate in this study is entirely up to you. In the same way, you may refuse to take part in the study at any time without affecting your relationship with either me, the investigator of the study or your school. Moreover, you have the right not to answer any single question, as well as to withdraw completely from the interview at any point during the process. You also have the right to request that the interviewer not use any of your interview material.

### **Right to Ask Questions and Report Concerns**

Please note that you have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have any further questions about the study, at any time feel free to contact me, Peter Magwele, at [petermagwele7@gmail.com](mailto:petermagwele7@gmail.com) or by mobile phone at 0766076557. Equally, if you like, a summary of the results of the study will be sent to you.

### **Options for Participation**

Please initial your choice for the options below:

\_\_\_The researcher may contact me again to participate in future research activities.

\_\_\_The researcher may NOT contact me again regarding future research.

Please take all the time you need to read through this document and decide whether you would like to participate in this research study or not.

If you agree to participate in this research study, please sign below. You will be given a signed and dated copy of this form to keep, along with any other printed materials deemed necessary by the study investigators.

\_\_\_\_\_  
Participant Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Investigator Signature

\_\_\_\_\_  
Date

