

**THE USE OF LESSON STUDY TO SUPPORT GRADE 2 TEACHERS IN
IMPLEMENTING DIFFERENTIATED INSTRUCTION TO DEVELOP LEARNERS'
READING COMPREHENSION SKILLS.**

A thesis submitted in fulfilment of the requirements for the degree

of

MASTER OF EDUCATION

(Primary Education)

Education Department

Rhodes University

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February 2022

DECLARATION OF ORIGINALITY

I, Elizabeth Magano Shipanga; hereby declare that this thesis is my own original work and has not been previously submitted in any form for assessment or for a degree in any other higher education institution. All ideas, quotations and other materials used in this study derived from the work of other people have been acknowledged using complete references according to Rhodes University Education Department Guidelines.

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11.02.22

Signature

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ABSTRACT

Research has found that learners in Namibia have poor reading comprehension (UNESCO, 2017). The Ministry of Education Arts and Culture (MoEAC) is concerned that teachers do not have the required pedagogical content knowledge to teach reading, and particularly reading comprehension in English Second Language. In addition, the MoEAC (2015) advocates for Differentiated Instruction (DI) to accommodate the needs of all learners in the classroom. Despite, numerous Continuous Professional Development programs, there has not been much change in the way teachers teach reading. The Lesson Study (LS) approach is viewed as a means to support teachers' professional development. It provides teachers with the agency to take responsibility for their own professional development. It is against this background that an interpretivist action research was utilised to ascertain how LS can be used to support Grade 2 teachers in implementing DI to develop learners' reading comprehension skill. This study asked the question: *How can Lesson Study be used to support Grade 2 teachers in implementing Differentiated Instruction to develop the learners' reading comprehension?* Data was generated through observations, document analysis and interviews. The Theory of Practice Architectures was used to analyse data.

As teachers we began this study with knowledge of the goals and terminology of DI but lacked the competence to implement it. The LS process used in the study enhanced teamwork as we planned, taught, observed each other, and reflected on the lessons taught during the intervention. We shared diverse insights in a supportive environment. Despite still novices with LS and DI we worked on redesigning lessons to become more intentional in catering for the needs of all learners in developing their reading comprehension in English Second Language.

The emerging evidence from this and other studies is that LS is a very useful vehicle for Continuous Professional Development (CPD), but it is time consuming and in this study planning and reflecting on the lessons had to occur after hours.

Key words: Lesson Study; Differentiated Instruction; Reading Comprehension; Theory of Practice Architectures

DEDICATION

This thesis is dedicated to my late grandmother, my husband and three wonderful children. Maria Ndiwakalunga Hanghuwo, thank you for being the light that guided my life. You are an amazing guardian angel. Mr Jeremia Matjoboes Nicodemus, thank you for supporting me throughout this journey. Brighten-Star, Blessings and Bravo-Success, you are the reason for all my hard work.

ACKNOWLEDGMENTS

First and foremost, I would like to acknowledge how indebted I am to my supervisor, Dr Lise Westaway, who made this work possible. Her guidance and advice throughout every single stage of this process was invaluable. I humbly thank you for encouraging me throughout this research journey and for allowing me to grow as a researcher, academic and teacher.

I would also like to thank the school board members, the principal and fellow colleagues for supporting me through my journey. Thank you for the faith you had in me.

My sincere gratitude goes to my participants who made this study a reality. Your support, commitment and contribution to improving our pedagogical practices and towards this study all contributed to its completion.

To Mr Linus Nekondo, thank you for being critical my critical friend and a reassuring voice when needed.

To the family aunt, meeMwatya, you were always there; ready to take care of the children when Rhodes University calls. The motherly love and care you gave them will forever be cherished.

To my friends and colleagues, Rachel, Fatima, Josephine, Mirjam, Kapandu, Rauha, Tresia, Eva and Dr Namundjebo, I am indebted for your support.

A special thanks to my lovely family. Words cannot express how grateful I am to my husband, children, and my sister Jicky. Thank you for all of the sacrifices that you have made in my life. I am this strong woman because of you! Your prayers for me have sustained me thus far. I cannot thank you enough for always being there for me.

I thank my God for getting me through all the tough days. I have experienced your guidance day-by-day. You led me on a challenging journey, but one that I am deeply grateful for. I will keep on trusting you. Thank you, Lord.

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ABBREVIATIONS

AR	Action Research
CPD	Continuous Professional Development
DI	Differentiated Instruction
JP	Junior Primary
LS	Lesson Study
MBEC	Ministry of Basic Education and Culture
MoEAC	Ministry of Education Arts and Culture
PCK	Pedagogical Content Knowledge
SAQMEC	Southern and Eastern Africa Consortium for Monitoring Educational Quality
ToPA	The Theory of Practice Architectures
UNESCO	United Nations Educational Scientific and Cultural Organisation

CHAPTER 1: CONTEXT OF THE STUDY

1.1. THE STATE OF LEARNERS' READING COMPETENCE IN NAMIBIA

In modern societies, the capability to read is one of the most important competencies (Pearson, 2015). Chhabra & McCardle (2004) maintain that “the ability to read determines future career opportunities and is crucial for academic achievement” (p. 3).

Namibia is one of the countries in sub-Saharan Africa with a high percentage of children who are unable to read (UNESCO, 2017). For example, out of fifteen countries participating in the Southern Africa Consortium for Monitoring Education Quality study (SACMEQ III) (Ministry of Education, Arts and Culture (MoEAC), 2017), Namibia's Grade 6 learners were ranked 9th in reading competence. The report further shows that the Ohangwena region, where this research took place, has the worst reading results when compared to the other thirteen regions in Namibia.

Reading is a promotional requirement. Learners are only promoted to the next grade if they have attained a minimum of 40% in reading (MoEAC, 2015). In other words, learners cannot be promoted to the next grade without acquiring basic reading skills that will enable them to interact regularly with a diversity of texts, such as the prescribed textbooks and additional reading materials. This suggests that greater emphasis needs to be placed on developing learners' reading competencies.

The MoEAC (2015) declaration on reading as a lifelong skill necessary for learning, has led to an expectation that teachers give greater attention to the teaching of reading. One of the programmes the MoEAC (2016) introduced to support the development of learners' reading skills was a sustained silent reading period for all the learners from Grade 1 to 12. This takes place once a week for forty minutes in every grade. Principals, teachers and institutional workers (cleaners and administrative officers) are all expected to read during this time. The aim of this reading period is to generate a culture of reading, motivate learners to read for enjoyment, encourage the development of independent reading skills and improve learners' reading competence. While such programmes have been put in place to improve the standard of reading in Namibia, these are seemingly having little effect.

1.2. THE NAMIBIAN NATIONAL CURRICULUM FOR BASIC EDUCATION

The focus of the Junior Primary Phase is mainly on four areas: literacy, numeracy, broad knowledge of the immediate environment of the learner and personal health. The National Curriculum for Basic Education (NCBE) is an official framework that outlines teaching, learning and assessment, and gives directions on how to plan, organise and implement the curriculum to promote effective teaching and learning. The NCBE contains the national requirements that all the schools catering for both full- and part-time learners need to adhere to. These are specified in the syllabuses and other curriculum documents (e.g., the intergraded planning manual for Junior Primary), and the subject and phase assessment policies in basic education (MoEAC, 2016).

For the curriculum aims to be attained, particularly in the Junior Primary Phase (Grade 0- 3), the MoEAC (2016) has urged Junior Primary teachers' pay particular attention to catering for each individual learner's needs.

1.3. INCLUSIVE EDUCATION

The MoEAC (2013) has noted with great concern that, obstacles to learning arise when the learners' learning needs are not fully met. The MoEAC (2013) argues that "all children need educational support, and that educational support should be a central part of the entire education system to be provided at every school and by every teacher" (p.13). In support of this view, the MoEAC (2013) has adopted the notion of inclusive education as a key principle underpinning the curriculum policy. The aim of the *Sector Policy on Inclusive Education* (MoEAC, 2013) is to ensure that "the learning of all learners is supported" (p.13). In so doing, the policy advocates for the development of learning environments that support learners with a wide range of individual 'abilities' and needs. It suggests that teachers differentiate their pedagogical practices to support learners' varying needs. While it can be argued that the policy imperative to support learners' learning is commendable, policy alone cannot change what happens in the classroom.

In Namibia, the school is required to provide learning support programmes to meet all the learner's needs. When teachers are not able to accommodate the varying learning needs

during school hours, they are encouraged to teach in the afternoons (MoEAC, 2016). As such, the curriculum advocates for compensatory teaching to afford learners the opportunity to achieve the desired learning goals. If a teacher realises that the learners did not master the learning content, they are expected to work with the learners after the usual teaching hours. While Namibian teachers are expected to support learners with special needs after school, UNESCO suggests that the majority of the learners' educational needs should be met in the normal teaching space. This has driven the Namibian curriculum to advocate for Differentiated Instruction (DI) to accommodate the educational needs of all learners (MoEAC, 2015). The MoEAC (2016) demands DI as the most suitable pedagogy for preparing all the learners for complete inclusion in society.

1.4. READING AND DIFFERENTIATED INSTRUCTION AS REFLECTED IN THE JUNIOR PRIMARY POLICY GUIDE FOR NAMIBIAN SCHOOLS

The MoEAC (2015) views the Junior Primary Phase as the most important school phase because it is at the foundation of all future learning. It further highlights that the foundation of Junior Primary pedagogical practice calls for overt instructional methodologies in order to address the individual learning needs of the learners. It is for that reason that the MoEAC (2015) is encouraging teachers to give more focus on the reading component of literacy as it is a lifelong skill and essential for learning.

While the silent reading period provides learners the opportunity to choose the reading matter they wish to read, this is generally the only time that reading is differentiated according to learners' interests. The MoEAC (2015) policy requires teachers to organise and provide curriculum objectives, content, learning activities, teaching strategies and resources that are diverse to handle the wide range of learners' experiences and needs. Thus, MoEAC (2015) proclaims that differentiation should be a norm that should support teaching and learning in all teaching spaces. It further suggests that teachers should employ DI in their classrooms to facilitate learning that will enable teachers to detect more evidently the learning needs of all their learners.

Even though, DI is clearly articulated by the MoEAC (2015) as one of the instructional practices that teachers should employ to cultivate learners' reading competence, it appears that DI is not implemented by all teachers in Namibia. Despite DI being regarded as a policy imperative, most teachers are struggling to implement DI as they seemingly do not have the necessary knowledge and skills. In addition, the Programme for Quality Assurance Directorate, that is, the education officers and inspectors, who are required to support teachers, have been silent about the implementation of DI. One possible reason for this is that the education officers and inspectors are not familiar with DI themselves as it is a new policy requirement.

One of the reasons given for the challenge with learners' reading competence is that teachers do not have the necessary content and pedagogical knowledge to teach reading and develop learners' reading comprehension (MoEAC, 2016). The MoEAC (2017) has focused attention on providing Continuous Professional Development (CPD) opportunities for teachers to develop their knowledge.

1.5. CONTINUOUS TEACHER PROFESSIONAL DEVELOPMENT

CPD is regarded as major programme to reinforce the quality of the teaching fraternity (Harding, 2009). Even though the MoEAC (2017) realises that CPD programmes are vital for teachers to advance their content and pedagogical knowledge for teaching reading, these programmes are far too infrequent. The seeming lack of sufficient CPD opportunities could be one of the reasons why teachers are struggling to teach reading and differentiate their pedagogy.

The use of the professional development approach, Lesson Study (LS), may assist teachers in improving their practice. LS places the teachers in control of their own professional development. "LS is a highly specified form of classroom action research focusing on the development of teacher practice knowledge" (Dudley, 2013 p.1). LS is a specialised methodology which involves a group of teachers working collaboratively to develop 'research lessons' to improve their practice. (Coskun, 2017).

As Ono and Ferreira (2010) maintain, LS as a kind of classroom study in which a few teachers examine teaching and learning in the perspective of a real particular lesson in a classroom.

During the LS cycle, teachers collectively plan, implement and reflect on their lessons, and in the process, as they are working together, their content and pedagogical knowledge are being developed (Dudley, 2013). There appears to be a need to use LS as a professional development tool to support Grade 2 teachers in implementing DI to develop learners' reading comprehension. I am particularly interested in reading comprehension in the second language, which is English, as this is the Language of Teaching and Learning (LoLT) from Grades 4-12 (MoEAC, 2013). The purpose of this qualitative action research study is to use LS as a vehicle to support the Grade 2 teachers in implementing DI to develop learners' reading comprehension in English Second Language.

1.6. MY PERSONAL EXPERIENCE AS A JUNIOR PRIMARY TEACHER

I have been a Junior Primary teacher for twelve years. I started my teaching career as a Grade 0 teacher. Teaching reading was one my core responsibilities. Teaching reading particularly, reading comprehension has always been a challenge for me and my colleagues. As explained earlier, this has implication for learners as they progress up the schooling system. According to Nekondo (2017), it is common in a situation where teachers are not familiar with a particular teaching strategy that they employ "intuitive and ad hoc based strategies" (p.56) or to "teach the way they were taught" (p. 57). This is often to the detriment of the learners.

To improve my understanding of teaching reading, I enrolled for a Learner Support course offered by the Faculty of Education at the North West University in South Africa. It was a comprehensive course where I learned that learners have different needs. To cater for and accommodate the different learning needs, teachers should employ a variety of pedagogical practices. Despite the theoretical gains from this course, I had a challenge to share the knowledge with my colleagues because I was an ordinary teacher and was not in a position to hold meetings and workshops with other teachers in my school, circuit or region. However, that did not hinder me from using the knowledge gained in my own classroom. This set me apart from the rest of the teachers in my school. I received awards at both the school and circuit levels as the best Junior Primary teacher as my learners were performing well in reading English Second Language texts.

In a quest to expand my understanding of the field of Junior Primary teaching, I further enrolled for a Bachelor of Education (Honours) with Rhodes University during the 2017 academic year. It is there that I came to learn of LS and DI. In my capacity as the Head of Department, I decided to use the two approaches in my Honours research project. My Honours project focused on the use LS with Grade 2 teachers. Our aim was to improve the academic performance of English Second Language learners. Other than that, I also tried using LS and DI during the mini workshops for CPD that I facilitated as a Head of Department at the school. My experience has developed an interest to take DI and LS further to understand how implementing LS can assist teachers in implementing DI to develop learners' reading comprehension.

1.7. STATEMENT OF THE PROBLEM

The MoEAC's (2015) Junior Primary Policy Guide is clear that DI should be included in all the classrooms as a pedagogical practice to cater for the learning needs of all learners. However, there has been no support for teachers on how to implement DI in their classrooms. This leaves teachers to take responsibility for developing both their knowledge of DI and how to implement it. To my knowledge, there is no study in Namibia that explores the use of DI in the classroom. It is against this background that I seek to explore how LS can be used to support Grade 2 teachers in implementing DI to develop learners' reading comprehension.

1.8. THE PURPOSE AND SIGNIFICANCE OF THE STUDY

The potential significance of this research is to:

- develop the participating teachers' knowledge and use of DI in the classroom;
- use DI in the classroom to support learners' reading comprehension;
- organise a CPD model that takes responsibility away from the MoEAC and gives teachers' agency over their own learning;
- contribute to the increasing demand for research done in and by people living in Africa;

- improve teachers' pedagogic content knowledge and inform their pedagogic practices with regards to developing learners' reading comprehension;
- encourage teacher learning in a collaborative and supportive space and in a naturalistic setting; and
- understand the challenges of using DI to teach reading comprehension skill during English Second Language lessons.

The potential benefit of this research will be improved reading comprehension by engaging in tasks that appeal to the learners' interests, and that are pitched more appropriately to their 'levels of competence'.

1.9. RESEARCH GOALS:

The research seeks to:

- gain an understanding of DI and how to implement it;
- use LS as a professional development tool to support teachers in implementing DI to develop learners' reading comprehension;
- ascertain how teachers can improve the teaching of reading comprehension using DI;
- identify the enabling and constraining factors that teachers experience during the LS study process; and
- identify the enabling and constraining factors that teachers experience in teaching reading comprehension through the use of DI in Grade 2 classrooms.

1.10. RESEARCH QUESTIONS:

Main question: How can Lesson Study be used to support Grade 2 teachers in implementing Differentiated Instruction to develop learners' reading comprehension in English Second Language?

Sub- questions:

- What are Grade 2 teachers' understandings of Differentiated Instruction?

- How can Lesson Study be used to support teachers' implementation of Differentiated Instruction to develop all learners' reading comprehensions?
- What are the factors enabling and constraining the use of Differentiated Instruction to develop learners' reading comprehension in Grade 2?
- What are the factors enabling and constraining the use Lesson Study?

1.11. OVERVIEW OF THE THESIS CHAPTERS

The thesis consists of seven chapters and an overview of each chapter follows.

In **Chapter 1**, I present a rationale for the study. Drawing on the learners' results in the SACMEQ and UNESCO studies, I show that Namibian learners are underachieving in reading. One of the reasons for this is that teachers lack the required content and pedagogical knowledge to teach reading, and cater for different learners' needs. Inclusive education is foregrounded in Namibia and this is translated into curriculum policy as differentiated learning. Teachers are required to differentiate their practice to meet the needs of all learners. Teachers have received little training on differentiated learning. In instances where they have received training, this has been in the form of one-size-fits-all workshops that are removed from the context in which teachers teach. In this chapter, I suggest that LS may provide Grade 2 teachers with an opportunity for professional development in their own context. It is for this reason, that the research focuses on the use of LS to support Grade 2 teachers in implementing DI to develop learners' reading comprehension.

Chapter 2 focuses on the conceptual framework of the research. It provides an overview of the literature relevant to the key concepts in the study, that is, Lesson Study, DI and reading comprehension.

The theoretical framework is presented in **Chapter 3**. The Theory of Practice Architectures provides both the analytic and explanatory tools for the research. Within the Theory of Practice Architectures, practice consists of 'sayings', 'doings' and 'relatings'. These are conditioned by three practice arrangements, that is, cultural-discourse, material-economic and social political arrangements.

The focus of **Chapter 4** is the research methodology. The research is an action research underpinned by an interpretivist orientation. The participants in the research consisted of 3 Grade 2 teachers, the researcher and two other Grade 2 teachers. The teachers planned, implemented and reflected on their lessons over 3 cycles. Data was collected in the form of interviews, observation/reflection schedules and document analysis. Data was first analysed inductively and thereafter using the Theory of Practice Architectures as the analytic framework.

Chapter 5 examines the data collected during the action research process. The chapter includes the interview data prior to and after the Lesson Study process, as well as the Lesson Study process, that is the planning, observation and debriefing sessions.

In **Chapter 6**, I provide an outline of the key findings of the study, the limitations and recommendations for further research. I conclude the chapter with a short reflection of my own experiences as a researcher.

CHAPTER TWO: LITERATURE REVIEW

2.1. INTRODUCTION

As mentioned in Chapter 1, the main goal of my study was to explore the use of LS as a CPD vehicle to support the Grade 2 teachers in implementing DI to develop learners' reading comprehension in English as a Second Language.

In this chapter, I discuss the key concepts related to my study. These are Lesson Study, Differentiated Instruction and reading comprehension.

Continuous professional development is regarded as a major practice that teachers can employ to support the quality of their teaching (Harding, 2009). Collin et al. (2017) explain CPD as "the means by which people organised systematic education and training activities in which they take part in order to obtain knowledge and learn new skills related to their profession" (p.2). Furthermore, Lewis et al. (2018) elucidates that CPD can be noticeable in a number of practices. For example, it can be done outside of the school context in the form of workshops or as part of the day-to-day activities in the teachers' own classrooms. Collin, et al. (2017) added that there are drawbacks and limits to various CPD initiatives such as time, resources and insufficient support.

There are different kinds of CPDs for example, LS, workshops, meetings and conferences. My study's focus is on the LS form of CPD.

2.2. LESSON STUDY

LS is a specialized continuous development process that originated in Japan (Saito, 2012). It was initiated by a team of educators in one Japanese elementary school (Ogegbo et al., 2019). The teachers' objective was to cultivate mathematics lessons that would nurture and enrich the mathematical competencies of their learners. Since then, it has been used throughout Japan as a professional development approach (Reynolds, 2016). Noting the success of learners' mathematics performance in Japan, teachers and researchers across the globe, for

example South Africa, Tukey, United State of America and Zambia have begun to use LS as a CPD approach (Anfara et al., 2009).

2.2.1. What is Lesson Study?

LS is a “comprehensive and well-articulated process for examining practice” (Fernandez et al., 2003, p. 171). Dudley (2013) argues that LS has the structure of professional development as the teachers are enthusiastically involved in both the “process and the product of teaching” (p.2). As such, LS is a bottom-up professional development approach as teachers take responsibility for improving their pedagogical practices. According to Hendayana (2010), LS empowers educators to take charge for their own professional development as it is underpinned by a philosophy of shared action and shared learning, and strives to cultivate and stimulate the creation of “communities of practice” (p.5). In these communities, educators construct, form, share, and increase their understanding of collaboratively planned lessons.

Stigler and Hiebert (1999) maintain that it is through the LS process of reflecting on the taught lessons that the teachers can develop a clear picture of how the lesson should be revised to enhance learners’ understanding. It is a “results-oriented professional development model” (Anfara et al., 2009, p.2) that undertakes to enrich instructional practices in the classroom. LS enables teachers to research their practices in a collaborative setting and convert their knowledge into practice with a view to improving their practices (Villegas-Reimers, 2003). Burney (2004) explains LS as a process in which educators engaged in classroom action research by designing, instigating and testing lessons, and evaluating the outcome and impact of the lessons on the learning of the learners. Stigler and Hiebert (1999), Chokshi and Fernandez (2004) and Ono and Ferreira (2010) elaborate suggesting that LS has the potential to promote transformation of teachers’ vision of teaching and their pedagogical practices. It encourages teachers to engage in a form of collaborative action research and intellectualise their pedagogical practices (Hendayana, 2010).

Lewis et al., (2019) explain that LS is a cyclical process that incorporates planning, implementation (teaching and observation) and reflection. A team of educators meet regularly to collaboratively prepare lessons, observe each other teaching the planned lessons

and reflect on the weaknesses and strengths of the lessons. As such, LS involves collaborative preparation, application, and evaluation of lessons.

Watanabe (2002) recommends two techniques in which teachers can employ LS. Firstly, a specific teacher can organise the lesson to be delivered and then pass it to the group of teachers for remarks or, secondly, the lesson can be designed by the whole group. One of the fundamental features of LS is that the responsibility is not that of the teacher teaching the lesson, but on the entire LS group. The mixture of partnership and attentive observation within LS are the dominant tools for promoting teacher development, pedagogics, and competence to assess learners' learning (Murata & Takahashi, 2002; Roback et al., 2006).

In summary, LS is a professional development practice that is classroom-situated, context-based, learner-focused, research-oriented and teacher-owned. It is also a manner in which teachers work in a combined manner to advance their classroom practice.

As a CPD approach, LS is based on a number of pre-determined steps (Hargreaves & Fink, 2006; Lenski, 2009; Lewis et al., 2019).

2.2.2. How does Lesson Study work?

While all researchers who employ LS regard it as a regular practice with visible distinct stages, they differ as to the number of stages in the LS process. Baba and Kojima (2003), Choksho and Fernandez (2004), Cerbin and Kopp (2006), Suratno and Cock (2009), and Pang and Ling (2012) state that LS entails three stages. These include joint planning (which includes identifying the learning goal); lesson presentation and observation; and evaluation of the lesson in order to enhance the lesson and improve their teaching practice. In the same vein: Fernandez (2002); Ono & Ferreira (2010); Dudley (2013) and Stols and Ono (2016) described LS as a classroom investigation ideal which has three stages which are:

- The teachers get into small group to establish the lesson goal and design the research lesson.
- One teacher teaches the co-developed lesson while the others observe and make notes of the learners' learning.
- The teachers then reflect, analyse and refine the taught lesson with a view to improving their practice.

While Baba and Kojima (2003), Choksho and Fernandez (2004), Cerbin and Kopp (2006), Suratno and Cock (2009) and Pang and Ling, (2012) regard 'goal setting' as a key feature of the preparation stage (planning stage). Lewis et al., (2011) maintain that it is distinct from planning and suggest that LS practice is made up of four stages: goal setting, joint planning; teaching the scheduled lessons by one of the teammates whilst the rest observe the lesson and gather data of learners' learning growth. This is followed by a comprehensive analysis of the lessons by reflecting, deliberating and planning the next lesson using the shortcomings that emerged from the reflected lesson.

Lewis et, al (2019) also regard LS as having four stages. They regard goal setting and lesson planning as one stage. What distinguishes them from the rest is that they suggest that once the teachers have planned the lesson, it is evaluated. The evaluation of the lesson does, in some instances, involve a researcher or 'more knowledgeable other' reviewing and revising the lesson. Only then do the teachers teach and observe the lesson being implemented and reflect on the taught lesson.

Stigler and Hiebert (1999) explain that the LS process involves eight distinct stages. These include:

- describing and investigating a problem;
- preparing a lesson or series of lessons;
- teaching and observing the lesson(s);
- assessing the lesson and evaluate its impact on learning;
- reviewing and improving the lesson;
- teaching and observing the reviewed lesson
- assessing and reflecting on the reviewed lesson;
- sharing the outcomes.

What is common to all the researchers' views on LS process is that LS is a recurring process, with several well-defined stages. Three of the stages included planning (with goal setting), implementation and observation, and reflection. What is different for those who explain that the LS process has three or four steps, compared to eight steps, is what constitutes the nature of a cycle. Those who regard the LS process as consisting of three or four stages, see the planning, implementation, and reflection of the refined lesson as a separate cycle. For Stigler

and Hiebert (1999), the planning, implementation and evaluation of the refined lesson is part of a single cycle.

I based my approach to LS on the three steps as noted in Figure 2.1. These three steps of the LS practice are elaborated in more detail as follows:

Step 1: Goal setting and planning a lesson in a group - The teachers plan a research lesson collaboratively based on the identified problem.

Step 2: Implementation and observation - One of the LS participants teaches the lesson while the rest of the team observe how the learners are learning and how the lesson-in-action unfolds in the classroom.

Step 3: Post-lesson discussion (reflection session) and improvement of the lesson - The teachers conduct an in-depth review of the taught lesson by reflecting on the lesson and discussing what the children learned from the lesson and its implications for future instruction (Dudley, 2013).

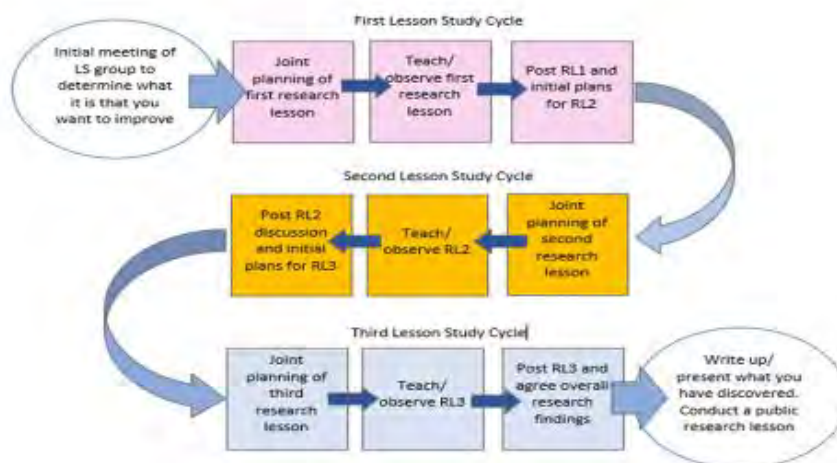


Figure 2. 1: Illustration of Lesson Study process and stages outlined in the section above extracted from Dudley (2013).

2.2.3. The benefits of Lesson Study

There have been a number of research studies on the role of LS in teacher professional development, the development of subject-matter knowledge and pedagogical knowledge, the development of teacher confidence, and on learner attainment. (Burney, 2004; Stigler & Hiebert, 1999; Dudley, 2013; Coenders & Verhoef, 2018).

Fernandez (2002) and Ogegbo et al. (2019) have found that group effort through LS enriches teachers' professional teaching, interacting skills, classroom controlling, and self-confidence, and develops an optimistic outlook towards teaching practices in the classroom. However, limitations, such as, time management, absence of formal support and inadequate teaching aids hinder teachers to partake in LS (Fernandez, 2002; Ogegbo et al., 2019).

Ogegbo et al. (2019) worked with four physical science teachers from rural schools in Durban, Kwa-Zulu Natal, South Africa. Their research revealed that teamwork through LS enriched teachers' professional development, interaction skills, lesson preparation skills, classroom administration and self-efficacy.

Fernandez (2002) conducted research based on the Japanese Lesson Study. This empirical study was conducted to investigate the practicality of LS in a U.S. context. Challenges were underlined in this study and particular attention was paid to the shortcomings and benefits of LS the North American teachers experienced when implementing LS. The study discovered that teamwork is boosted through the LS approach because the educators design a research lesson, organise, deliberate the effects of the research lesson and polish the lesson collaboratively. In addition, the LS process also stimulates teachers' intellectual commitment and develops their content and the pedagogical content knowledge necessary to teach.

LS is not only believed to be effective with practicing teachers, but also with pre-service teachers. Marble (2006) inspected eight groups of three pre-service student teachers who had learned how to use LS to plan lessons, teach, observe, reflect and refine. She found that partaking in a LS practice assisted pre-service educators to evaluate their teaching practice in a collective manner.

Some scholars acknowledge LS as a valuable tool in terms of curriculum implementation and information. For instance, Coenders and Verhoef (2018) conducted a qualitative case study

on LS. The research participants for this professional development opportunity were novice and skilled teachers from two high schools. Each school had one knowledgeable and one novice teacher partaking in the study. The central objective was to support educators in taking account of their own learning and advance their pedagogical knowledge. The results showed that all four teachers PCK improved as a result of the LS. Teachers developed more structured tasks in an appropriate sequence, they encouraged learners to work together in groups, in which they were expected to deliberate tasks, elucidate content to their peers and come to an agreement on answers. In addition, learners' understanding and knowledge gains from this intervention included: greater learner participation, commitment and improved knowledge and skills. Through the observation the teachers noticed the shortcomings that the learners encountered during group work and together the pre-and in-service teachers tried to overcome these shortcomings. Teachers also detected variances in pace of learning and different learning 'abilities' among the learners. This resulted in a greater understanding of the benefits of DI. All four teachers treasured their learners' views, and they all used the learners' assessment results to enhance future planning and their classroom practice.

Lesson Study offers a suitable means for continuing professional development. Rock and Wilson's (2005) research sought to explore the impacts of the LS model on six upper-elementary educators in the United States. The results indicated that the teachers who took part in this study improved their teaching skills related to their professional growth. They testified that the engagement in LS was their first professional development experience that differed from their traditional way of attending a one-day workshop where there is limited interaction or conversation. The LS course stimulated the teachers' professional confidence. With reference to the support offered by the investigators, the teachers established that, the group planning and teaching influenced their level of commitment in the LS. The research participants explained that they gained self-confidence in their classroom instruction as result of partaking in the LS approach. Their engagement during LS as they worked in teams with their colleagues on aspects related to curriculum objectives, and teaching and learning resulted in learning new teaching strategies.

LS enhances the learning of both teachers and learners. Marsigit (2007) conducted a preliminary study about the outline and usage of LS with secondary mathematics educators in West Java, Central Java and East Java. Data was gathered by means of observations,

interviews with the educators and learners were tested. The primary discoveries were enhancements in teaching practices and learners' academic attainment. Regan et al. (2016) utilized LS to inspect teaching practices among students with learning challenges. The study aimed to ascertain the power of the LS approach for pre-service teachers who planned to teach English as a Foreign Language in Turkey. Information was gathered from research lessons, observations, and reflections throughout the LS process. The research participants were eight preservice teachers/student teachers. Data was generated through teaching practice that was conducted in a high school. The teachers worked in partnership with university lecturers/researchers. The research took 14 weeks to complete. The results show that LS adds knowledge to teachers by providing them with actual examples of teaching practice. The study has further exposed that there was a remarkable expansion of pedagogical modifications connected to the learning context and the teaching styles employed by the teachers.

Many scholars argue that LS cultivates teachers' content knowledge, pedagogical content knowledge, pedagogical knowledge and curriculum knowledge and it boosts educator's self-confidence and teamwork (Stigler and Hiebert, 1999; Burney, 2004; Coenders & Verhoef, 2018). Burney (2004) explains that LS affords a great support environment in which educators can cultivate their content knowledge and pedagogical skills. In the same vein, Stigler and Hiebert (1999) state that, LS connects teachers understanding of content and the tangible delivery of content in the teaching space.

2.2.4. Challenges with the implementation of Lesson Study

Notwithstanding the strengths of LS as highlighted above, several researchers have identified a number of challenges in implementing LS (Fernandez, 2002; Ogegbo et al., 2019). Fernandez (2002) studied two groups of educators (fourteen Kindergarten to Grade 8 teachers and nineteen middle school educators) who employed LS as a professional development approach. The results of the study show that teachers had concerns about the amount of time required to meet each other and collectively design lessons, and they had to face and overcome their anxiety of having team members witness their teaching and have their teaching evaluated by their colleagues during the reflective sessions.

Like Fernandez (2002), Ogegbo et al. (2019) establish that the educators struggled to find time to meet, prepare and reflect on the research lessons. Their research displayed that the non-existence of instructional assistance from the school administration and teachers' unions, and the inadequate learning aids available to supplement teaching and learning made the implementation of LS challenging. These facets posed difficulties for teachers partaking in LS as a school based professional development initiative.

In conclusion, the literature has revealed that networking skills, lesson planning skills, classroom management and self-efficacy are some of the benefits of LS. LS practice also stimulated teachers' PCK and empowered teachers to critically assess their practice when they had the opportunity to inspect their practice collaboratively. LS cultivates educators' content knowledge, pedagogical content knowledge, pedagogical knowledge and curriculum knowledge and it increases educators' self-reliance and teamwork. LS also advance learners' academic attainment (Burney, 2004; Stigler & Hiebert, 1999; Coenders & Verhoef, 2018; Marsigit, 2007).

The LS process was mostly seen as an operational method, but there are some shortcomings one may experience when using the LS professional development tool. For instance, amongst the shortcomings, were worries that the educators did not have adequate time to meet each other and collectively design lessons. They had to overcome their anxiety of having team members observing and reflecting on their teaching (Fernandez, 2002; Ogegbo et al., 2019).

As highlighted in Chapter 1, the MoEAC have not provided support for educators on how to DI in their lessons in order to safeguard that all learners' learning needs are met. Teachers are left to apply DI in their classrooms on their own. The above research suggests that LS may be a beneficial means to empower teachers to take responsibility for their own professional development and collaboratively engage with how to differentiate teaching and learning.

2.3. DIFFERENTIATED INSTRUCTION

As noted in Chapter 1, the MoEAC (2013) has expressed great concern that not all learners' learning needs are being catered for in the classroom. The MoEAC (2013) maintains that *all* learners must be offered educational support, and that educational support should be a

fundamental part of the kind of education delivered at every single school. For that reason, the MoEAC (2013) introduced the *Sector Policy on Inclusive Education* to guarantee that all learners' learning needs are accommodated in every classroom.

The policy plan on inclusive education is to promote a learning environment that meets the learning competencies and needs of all learners through the use of differentiated teaching (MoEAC, 2013). This concern is not only found in Namibia. Whipple (2012) states that the United States is concerned with providing rights for every single child to meet the curriculum outcomes, including learners who are in special education facilities, those who are not innate speakers of the English language and learners with different cultural experiences. She suggests that diverse techniques need to be utilised to support learners with different learning needs in the classroom and provide inclusive educational chances for all the learners to be able to learn.

Learners come to school with a diverse range of learning needs that necessitates that the teacher employs pedagogic methods that are likely to meet the learners' learning needs. Tomlinson (1999) posits that DI has the power to address diverse learning needs. In support of this Weselby (2021) argues that "just as everyone has a unique fingerprint, every learner has an individual learning style and, chances are that not all of your learners grasp a subject in the same way or share the same level of ability, thus it is imperative to consider DI" (p.1).

Researchers view DI differently. Tomlinson (1999), who spearheaded DI, explains that DI is a framework that takes account of a multiplicity of teaching methods that should be used to benefit all the learners in a classroom. She further explains that DI involves teaching similar learning objectives to all the learners by means of employing different instructional procedures. Whipple (2012) explains DI as a teaching approach that has been known to support educators to be able to provide necessary support for learners in reaching their educational potential. She considers DI to be a methodology that contributes to creating and maintaining inclusive pedagogical practices. Hall et al. (2003) highlight that DI is not a solitary style but is rather a method of teaching that embraces a range of teaching methods. As Levy (2008) notes, DI is a methodology that seeks to meet the needs of each child and ensure that they have an opportunity to progress throughout the schooling system.

Watts-Taffe et al. (2012) define DI as a teaching approach that empowers teachers to modify their teaching to support all the learners. Additionally, Anderson and Schonborn (2008) and Ellis et al. (2008) state that DI draws on learners' previous knowledge and experiences. Together with Hall (2009) and Cooper (2007), they maintain that DI allows all the learners access to the curriculum through the use of diverse learning and assessment activities. The central intention of DI is to yield maximum advantage of each learner's capability to acquire knowledge (Tomlinson, 2000a; Ismajli & Imami, 2018). DI permits teachers the opportunity to adjust their pedagogical practices and, in so doing, validate the achievement of all learners (Hall, 2009; Cooper, 2007).

Tomlinson (2008) and Mills et al. (2014) stress that DI does not alter the intentions of the syllabus. Rather, it modifies the manner in which teachers implement the goals of the syllabus. It requires the teacher to ascertain the areas of content that can be adjusted, the actions and processes, the background or the classroom setting, and the evaluation tools to be used to assess learning. In so doing, teachers deliver lessons at different levels of struggle based on the learners' previous knowledge, interest and learning preference. Learners should also be given pre- and post-formative evaluations throughout the lesson to assess whether the required knowledge has been acquired and to adapt the teaching methods accordingly.

2.3.1. Differentiating instruction

The three principal ways teachers can differentiate their teaching and learning is by adapting the nature of the content, process and product of the lesson (Tomlinson, 2000b).

2.3.1.1. Content

Content refers to the knowledge and skills that learners must acquire. It indicates the '*what*' of teaching. It takes account of the attitudes, skills and knowledge that teachers want the learners to acquire. Ultimately, lesson content should be based on the educational principles in the syllabus (Tomlinson & McTighe, 2006) and the learning goals should be the same for all learners. In differentiating content, teachers adapt the methodologies they use to teach (Tomlinson & Imbeau, 2010). To differentiate the presentation of the objectives from the curriculum, several teaching methods should be employed. An example related to my research is that learners are given texts at different levels to read and comprehend. Furthermore, different levels of comprehension questions could be developed by

using Bloom's Taxonomy. Bloom's taxonomy is an arrangement of levels of rational activities set from lower-order intellectual skills to higher-order intellectual skills. He identified six levels of difficulty. These are remembering, understanding, applying, analysing, evaluating, and creating.

Learners who are inexperienced with the work at hand during the lesson, can be given tasks that will require them to work at the lower levels of Bloom's taxonomy, that is, remembering and understanding. Learners who struggle with reading comprehension can be given tasks that require them to recall and remember, while learners who are competent at reading can be asked to analyse a text. I elaborate on Bloom's taxonomy later in this chapter.

2.3.1.2. Process

Tomlinson (2000b) explained *process* as the mode in which pupils learn the content of the lesson. The lesson process can be carried out in numerous means such as whole-class instruction, groups, pairs or individual. Levy (2008) noted that learning tasks must address the diverse capabilities, learning preferences and interests of all learners. In short, the learning procedure might differ from learner to learner. Thus, teachers are advised to use a variety of diverse learning methods to meet the needs of each learner in the classroom (Tomlinson, 1999).

The teacher can support learners by making use of teaching aids to exemplify the ideas or learning goal (Tomlinson & Imbeau, 2010). Related to my research, learners can acquire new knowledge and skills through reading independently, with a peer, in groups or to the teacher.

2.3.1.3. Product

Product refers to how the learners demonstrate their understanding and display mastery of the content at the end of the lesson. Tomlinson (2001) recognised the product as a mode to ascertain the knowledge of the learners. Anderson (2007) emphasised that the degree to which the learners had attained the learning products should be judged through a variety of formative and summative assessment activities. The feedback of the evaluation permits the educator to identify the learners' understanding. Anderson (2007) explained that the assessment activities given to assess learning and evaluate teaching must relate to the content that is taught. The key to judging the product of learning is to offer the learners with diverse ways to show their learning. Based on this, the teacher can decide which learners

have grasped the content and which learners need further assistance (Tomlinson, 2000c, p.3). For example, learners can be given a reading with questions related to their level of competence.

Figure 2.2 highlights the components of DI as proposed by Tomlinson (2000b) and how they can be differentiated during teaching and learning.

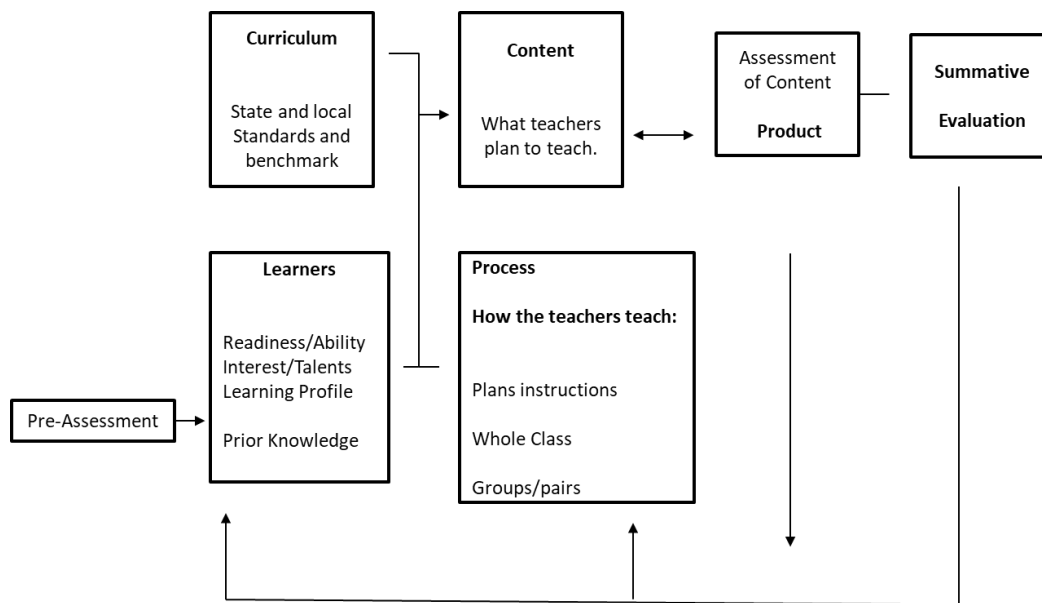


Figure 2. 2: The cyclical process of differentiated instruction, adapted from Oaksford and Jones (2001).

Tomlinson and Imbeau (2010) outlined the fundamental features that the teacher needs to consider to be able to effectively differentiate the content, process and product in a lesson.

2.3.2. Meeting the needs of the learners

Tomlinson and Imbeau (2010) argue that to effectively meet the educational needs of all the learners, teachers should also focus on the learners’ readiness, their interests and preferences (Tomlinson & Imbeau, 2010). What controls the amendment of the content, process and product is the teachers’ ability to identify the learners’ readiness, interest and learning profile.

2.3.2.1. *Readiness*

Tomlinson and Imbeau (2010) refer to readiness as “the learners’ current proximity to specified knowledge, understanding, and skills” (p. 16). They pinpointed that readiness and ‘ability’ are two different concepts. Readiness refers to when the learners are fully prepared and ready for the task. ‘Ability’ is when the learners have acquired the skills to complete the task. The objective of bearing in mind the learners’ readiness is to differentiate the tasks for the learners and to offer support the learners may need for their academic attainments or progress.

2.3.2.2. *Interest*

Interest is defined as that which “engages the attention, curiosity and involvement of a learner” (p.16). When learners are fascinated about something, their enthusiasm to acquire new knowledge is boosted. As a result, Tomlinson and Imbeau (2010) argue that the learning outcomes will be easier to attain. The objective of differentiating based on learners’ interests is the contribution to learners’ engagement with new material by building and making connections with concepts they have previously learned in a manner that is stimulating, significant and valuable. Learners’ interests are customarily attached to their strengths, cultural context, individual experiences, demands and needs (Tomlinson & Imbeau, 2010).

2.3.2.3. *Learning profile*

A learning profile is “a preference for taking in, exploring, or expressing content” (Tomlinson & Imbeau, 2010, p. 17). Tomlinson and Imbeau (2010) outline four factors that assist teachers form a learning profile for each learner:

- culture;
- gender;
- multiple intelligences; and
- learning style (e.g., working individually or in a group)

For Sternberg and Gardner (1983), intelligence is multiple in that it includes intrapersonal, interpersonal, verbal-linguistic, logical-mathematical, spatial, bodily-kinaesthetic, musical-rhythmic, or a naturalist preference for learning or thinking.

The chief principle of learning profile and 'intelligence' differentiation is to allow the teacher to get to know their learners and teach in a way that supports learning.

2.3.3. Research on Differentiated Instruction

In many countries, inclusion is one of the key principles underpinning the curriculum. The MoEAC (2015) regards DI as a policy that advocates for the integration of inclusion in the classroom. Yet, as indicated in Chapter 1, few teachers use DI in their classrooms (MoEAC, 2015).

Ismajli and Imami-Morina (2018) conducted a study that aimed to describe the extent to which teachers include DI in their pedagogical practices. They focused their research on how teachers differentiate content, process and product in American Kosovo Schools. The participants in the investigation were 200 pupils, 30 teachers, and 30 parents from public and private schools. The study employed questionnaires for teachers and learners and interviewed the parents as the data gathering techniques. Through descriptive analysis, the investigation found that educators do not have an adequate knowledge of DI. The research shows that DI is generally not put into practice and that there were several variances between the public and private schools. They also established that when teachers integrate DI in their lessons, their focus was more on differentiating the product, and less on differentiating the content and learning process. Ismajli and Imami-Morina (2018) conclude that notwithstanding a variety of professional development initiatives, much is still required in order to empower teachers to comprehend, embrace, and effectively implement DI in their classrooms.

Whipple's (2012) research focused on teachers' understanding and practice of DI at kindergarten level in both special and mainstream schools. Data was gathered from 100 educators by means of a survey. The practical goal of their inquiry was to find out teachers' understanding of DI and identify the strong points and weaknesses of the participants to decide what training may be necessary for the teachers. Unlike Ilirjana (2017), Whipple's (2012) research revealed that teachers understood the features of DI but did not know how to apply it in the classroom setting.

There have been numerous studies conducted that focus on the significant role of DI on learners and pre-service teachers' learning within schools and teacher education (Alavinia & Farhady, 2012; Joseph et al., 2013). Joseph, et. al (2013) studied the power of using a DI approach in teaching pre-service student teachers who registered for an undergraduate curriculum studies at the university. The participants were four hundred and thirty-four pre-service teachers from two education departments. The students took part in a course on DI over a period of a one semester. The pre-service teachers were randomly split into two groups. One group of pre-service teachers learned in a mode that was based on DI while the other half was instructed using a whole-class, 'one-size-fits-all' instructional approach. Questionnaires, individual and focus group interviews, classroom observations, student reflections and students' semester grades were employed to generate data. At the end of the course, the degree to which DI had a positive effect on students' overall understanding of the course was weighed up through an evaluation on what the students had learned during the course of the semester. Conclusions of the study indicated that the students responded well to the DI methodology, with 90% of participants recording increased levels of knowledge and interest in the subject. Practically, all the students (99%) who participated in the lessons using DI, conveyed enthusiasm to engage with DI in the workshop sessions. 88% indicated that they would like to use a DI style in their classrooms upon completion of their study.

Alavinia and Farhady (2012) conducted a study to probe the possible impacts of DI on vocabulary learning. The research was conducted at the Iran Language Institute in Urmia. The research participants were 80 Iranian middle school female learners. These learners were organised into two clusters based on their vocabulary levels. Having taken the test, the learners completed a questionnaire that examined their aptitudes and learning styles. Upon the completion of the questionnaires, the learners in the experimental group were allocated to one of five groups based on their preferred ways of learning, that is, intrapersonal, interpersonal, linguistic-auditory, visual-spatial and bodily-kinaesthetic. They were taught according to their distinctive 'intelligences' (Gardner, 1983) and learning styles. The other group of learners was taught using a 'one-size-fits-all' approach. After the intervention, the learners took a post-test. A noteworthy change was established amongst the performance of the two clusters of learners and the outcomes were in favour of the experimental group.

In a different study, Tomlinson et al. (1998) studied the background of instructional practice in an intermediate phase school (a school that comprises of Grade four to six). Their aim was to ascertain how teachers respond to academic diversity by means of differentiating their instruction. This study showed that only a few educators took learner interests, learning profile or cultural variances into consideration when they planned lessons. They also found that amendments to task designs were uncommon, with few teachers choosing to employ differentiation in their teaching. The results from this study showed that teachers who employed wide-ranging instructional methods were more flexible in their approach and were more likely to focus on individual learners' educational needs. The research findings indicated that although some of the educators who employed diverse instructional policies managed to partly develop more flexible classrooms. Most teachers however, voiced frustration about dealing with learner variance because of insufficient time and this frustration triggered numerous teachers to opt for a 'one-size-fits-all' approach to teaching.

In conclusion, Whipple (2012) revealed that teachers understood the features of DI but did not know how to apply them in their classroom. Joseph, et al. (2013) found that in evaluation of student learning most learners in the classrooms where DI was employed showed sound knowledge of key conceptions taught. Moreover, Tomlinson et al. (1998) indicated that only a limited number of educators considered students interests, learning profile or cultural differences when they planned lessons. They observed that amendments to the tasks that were designed were uncommon, with limited number of teachers choosing to differentiate in their lessons. Teachers who employed a wide range of instructional strategies tended to accommodate different learners' learning needs more readily.

In Chapter 1, I showed that learners in Namibia perform poorly in reading (which includes reading comprehension). In this research, I focus specifically on reading comprehension, which is a component of reading.

2.4. READING COMPREHENSION

The four key language skills in the Language Policy for Namibian Schools (MoEAC, 2003) are listening, speaking, reading and writing.

Bhatt and Lilian (2016) highlight that language skills work as an “input and output unit” (p.2); categorised as receptive and productive skills. Reading and listening are receptive skills (input skills), that is, the “processing of information [takes] place in the brain [and] involves cognitive skills” (p.2). Whereas, speaking and writing are productive skills (output skills) because they are used to transfer information through oral and written forms of communication.

2.4.1. Reading

There are many different definitions of reading. According to Hengari (2008) reading is explained as the way of making sense of written or printed symbols. Torres and Constain (2009) elaborate on this definition and define reading as a method of “identification, interpretation and perception of written or printed material” (p.56). Sheng (as cited by Hartney, 2011) defines reading as a method of conveying information between the reader of the text and the writer. As such, reading involves interaction between the text and the reader, recognition of the letters, words and sentences, and making meaning of the text.

Castles, Rastle and Nation (2018) regard reading as a difficult receptive skill that requires learners to look at the structures of printed symbols and make meaning of the symbols. Like Torres and Constain (2009) they maintain that it includes both “perception and thought” (p.7). This means that, for reading to occur, there are various mental operations required (e.g., word recognition). This is supported by Hartney (2011) who claims that “reading is a complex cognitive process requiring visual, auditory and motor skills” (p.36). In other words, the reader uses his/her eyes to identify the written symbols. The brain transforms these symbols into words, sentences and paragraphs in order to communicate the meaning of the text.

Akyol (quoted by Ergen & Batmaz, 2017) suggest that “reading is the process of establishing meaning performed in a regular environment based on an efficient ‘interaction’ between the author and the reader; and the pre-information of the reader is used in it for a suitable purpose by using a proper reading method” (p.543). Reading thus, entails that readers create relations within the printed text (i.e., amongst the sentences in the written text), and in the case of beginning readers, with prior knowledge and experiences. (Castles, et al., 2018).

Castles, et al. (2018) explain that reading entails several interconnected processes for example, “word recognition, comprehension, fluency and motivation” (p.5). Word recognition is the procedure and ability of the reader to perceive printed symbols. Qrquez and Rashid (2017) highlight that the reader has to make sense of the written symbols and then words to be able to grasp the writer’s intended meaning. Reading a text requires the identification of individual words. In so doing, the reader has to identify both old and new words, as these are “the building blocks of comprehension” (Castles, et al., 2018, p.7).

Comprehension is the procedure of creating sense from written text. For one to understand a text, “numerous linguistic, theoretical, reasoning, and metacognitive skills must work proficiently and concurrently within the reader” (p.5). Learners tend to draw on the setting of the written message to comprehend the meaning of the words, particularly those that are new to them. Ahmed (2015) describes reading comprehension as a “process in which words are interpreted and meaning is created” (p.1). He further noted that there are a diversity of aims for reading: to find data, to interconnect, and for pleasure.

2.4.2. The fundamentals of reading

A report of the National Reading Panel (2000) identified five essentials skills as critical fundamentals to develop good readers. These are phonemic awareness, phonics, fluency, vocabulary and comprehension.

Konza (2011) explained that “learners crack alphabetical puzzles as they learn about phonemes which are sounds, graphemes which are letters and graphophonemics which has to do with letter sounds relationships” (p.3). Phonemic awareness is the capability to recognise and control different sounds in spoken language. For example, a learner whose phonemic awareness is developed can recognise syllables in words for example the word ‘water’ (wa-ter).

Phonics refers to matching of the sounds of spoken letters or collection of letters, which involves how spelling is linked to speech sounds in an analytical system. In other words, the phonics show the letter symbols and spoken sounds are interconnected (National Reading Panel, 2000).

Fluency is the ability to read correctly, efficiently and with expression (Castles, et al., 2018). While the crucial point in the early years is on developing reading fluency and decoding words, learners in higher grades are required to concentrate on comprehension because they are more advanced with fluency and decoding of words (Melby-Lervåg & Lervåg, 2014).

The goal of reading is not to simply read the printed words, regardless of the automaticity in which this can be done. But, the main goal of reading comprehension is for learners to make meaning from the text they read; the requisite recruitment of language comprehension and word reading must both be supported in the classroom from the very beginning (Mancilla-Martinez, 2020, p.2).

In the light of the above quote, since the chief objective of reading is for the learners to comprehend what they read, teachers are therefore urged to support and design activities that aim at developing the learners' language comprehension and word reading in their classrooms.

2.4.3. Reading in a second language

According to August and Shanahan (2008) developing the language competence of second language learners depends on an individual learner, the environment in which learning is taking place and the instructional method used by the teacher to facilitate language learning. In addition to that, skills related to reading that are developed before the child starts school also contribute to literacy development. These skills include "oral language skills, familiarity with print materials, an understanding of the concepts of print, an understanding of text structures, and the acquisition of knowledge" (August & Shanahan, 2008, p.43). Depending on the home environment and the experiences of the learners, some of these skills are learned before learners start school.

Reading in a second language demands the immediate usage of numerous cognitive and linguistic skills (August & Shanahan, 2008, p.42). It may be perplexing for second language readers whose lower-level processing skills have not completely developed. Lower-level processing skills include decoding, grammatical ability, and vocabulary knowledge. Thus reading instruction in a second language should develop learners' lower-level processing skills.

2.4.4. Developing reading comprehension

Comprehension is the central objective for reading (Kirby, 2007; Konza, 2011) As Armbruster (2003) claim “comprehension is the heart of reading” (p.15). It is a significant skill that enables one to make meaning of texts. Calp (quoted by Ergen & Batmaz, 2017) explained comprehension as a way of “getting information from sounds, words, or narrations, making inferences from the material that is read, and receiving the message intended to be conveyed” (p.543). Castles et al. (2018) explain that reading comprehension requires that the reader extract and create meaning of a written text at the same time. In other words, reading comprehension is basically about making sense to understand the written language.

Van den Broek and Espin (2012) regard reading comprehension as a “mental representation of the textual information in the reader’s mind after completing reading the text” (p.3). This view is endorsed by Armbruster (2003) who explain that learners develop their comprehension “by learning to use mental plans” (p.15). These ‘mental plans’ or approaches involve making predictions, using existing knowledge and focusing on the way a reading selection is organized and this leads the learner to creating mental pictures and deeply engage with the text.

Comprehension requires that the data in the text is recalled. Shapaka (2015) acknowledged two points of comprehension: simple level comprehension focuses on developing meaning by decoding words and engaged in low order activities like; answering a remembered question after reading. Complex level comprehension refers to reading and understanding the text and gets engaged in higher order activities. Complex level comprehension require the learners to “participates in mental tasks like drawing inferences, deciding on main ideas, inferring the writer’s purpose and predicting what will happen in the text” (p.2).

Almutairi (2018) highlights two key reading comprehension models that play a substantial part in enabling the comprehension process to take place. The models are the bottom-up model and top-down model.

These two teaching models vary from each other depending on their attentiveness of the technique that readers are using to make sense of a written text. For example, the bottom-up model requires the readers to crack each word in the written text to be able to get

meaning. Whilst, with the top-down model considers the readers' background knowledge and their previous experiences about the content of the text. This, Almutairi (2018) argues, plays a significant role in assisting the learners in making meaning from the text.

Some scholars find vocabulary as one of the key elements to good reading comprehension skills. For example, Konza (2011) argues that vocabulary is a chief support of comprehension and vocabulary development is equally a result of "comprehension and a precursor to it, with word meanings making up as much as 70–80% of comprehension" (p.4). He further maintains that learners who have a good vocabulary and decoding skills know the meaning of words and are far more likely to be able to read a text and make sense of it. Being able to "crack the alphabetic code" (Konza, 2011, p.6), while crucial for comprehension, is not adequate. Comprehension is not likely if learners are not familiar with the vocabulary in the text. Learners require an understanding of the semantic structures (i.e., meaning of the words), the syntactic structures (i.e., rules that direct us on how the word can be grammatically and correctly arranged to form a sentence or text) that support making connection between printed words and the ability to "read between the lines" (Konza, 2011, p.6). Comprehension is a process of making sense of printed texts which includes different methods that a reader needs to use in order to understand the written message. It is also the reason why we read (Armbruster, 2003; Torres & Constain, 2009). Castles et al. (2018) found motivation crucial in developing reading comprehension.

The National Reading Panel (2000) stresses that, teaching or developing comprehension needs to be developed in conjunction with vocabulary. They explain that teaching of vocabulary in developing comprehension has a high chance of improving the comprehension because it provides learners with explicit word meaning to the unfamiliar words in the written text. Rosenshine and Meister (1997), Rosenshine (2008) and Rupley (2009) maintain that vocabulary development is an effective method in advancing second language learners' vocabulary growth. Thus, the National Reading Panel (2000) urged teachers to make time for developing the learners' vocabulary when teaching other language skills, as this will enhance comprehension, specifically in a second language.

Nelson and Van Meter (2007) and Acosta (2019) maintain that learners need to be exposed to new vocabulary as they learn to read because this will offer them an opportunity to develop

their understanding of written texts. In support of that, Beck et al. (2008) and The National Reading Panel (2000) advise that teachers should use direct instruction to develop learners' vocabulary. Direct instruction is a teaching method whereby a teacher focus on the learning needs of all the learners. The teacher is therefore required to breakdown the teaching activities into smaller sections, teaching them step-by-step and supporting the learning of the learners by giving feedback to them until they have mastered the required vocabulary. (Rosenshine, 2008; Rupley, 2009). Direct instruction should therefore be employed to cultivate learners' vocabulary because it has been found to be one of the effective methods in advancing second language learners' vocabulary growth (Rosenshine, 2008; Rupley, 2009).

August and Shanahan (2008) maintain that one of the key components of learning to read is phonological processing. "Phonological processing is the ability to use the sounds of the language to process oral and written language; globally, one's phonological processing abilities have an impact on reading acquisition and comprehension" (p.43).

August and Shanahan (2008) further urged that phonological processing in developing reading skills is proven to be an essential part in developing reading comprehension in the second language learners. They outlined three explicit aspects of phonological processing that teachers need to develop when teaching reading comprehension in a second language classroom: phonological awareness, phonological recoding and phonological memory.

- Phonological awareness is the "ability to consciously attend to the sounds of language as distinct from its meaning" (p.43). The phonological awareness skills of first-language learners are likely to be interconnected with their foundation of reading skills, particularly with their decoding skill. Phonological awareness comprises of consciousness of rhyming, syllabification and phonemic awareness. Phonemic awareness is the:

insight that every spoken word can be conceived as a sequence of phonemes. Because phonemes are the units of sound that are represented by the letters of the alphabet, an awareness of phonemes is key to understanding the logic of the alphabetic principle and thus to the learning of phonics and spelling. (August & Shanahan, 2008, p. 44).

Phonemic awareness involves the ability and skills for the learner to separate words into their different phonemes.

- Phonological recoding refers to the action which is necessary when a “non-phonological stimulus” (August & Shanahan, 2008, p.44), such as a printed text or image, is transformed to phonological output. Phonological recoding is usually assessed through identifying rhyming words from the text.
- Phonological memory refers to classifying of “information phonologically” to be temporarily stored as working memory. Phonological memory is assessed by means of word repetition activities (August & Shanahan, 2008, p.44).

Duke and Pearson (2008) advocate for a balanced comprehension instruction approach. A balanced comprehension approach consists of explicit pedagogical practices that develop learners’ use of strategies for interpreting and understanding the text. In addition, they maintain that learners should be given adequate time to comprehend the text, and a chance for reading, writing, and speaking about what they have read.

Konza (2011) suggests that teachers should set questions at different levels of understanding. Konza (2011) further suggests that teachers need to employ a variety of teaching tactics that will yield fruitful results as the learners are engaging with the text. For example, the high-level cognitive problem-solving questions will empower comprehension. Moreover, it will allow learners to draw conclusions from the text by discovering and distinguishing crucial information and recognising links in the text. In the same vein, Mintre and Lie (2020) advise that, reading comprehension also requires critical thinking. Mintre and Lie (2020) suggest that there must be a place for “lower and higher order questions” (p.1). They encourage teachers to make use of the six cognitive thinking levels of Bloom’s Taxonomy (Glasson, 2005) in teaching reading.

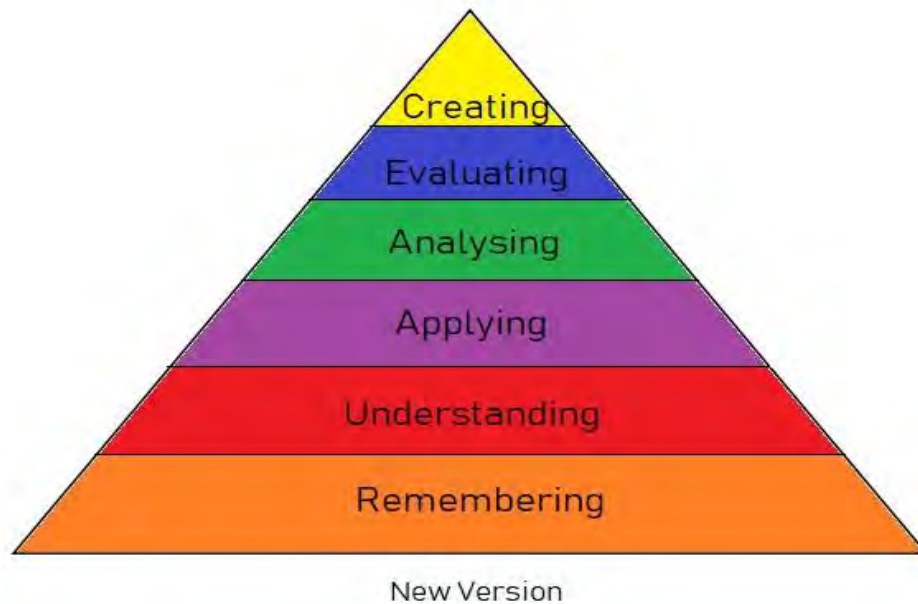


Figure 2. 3: Six levels of Bloom's Taxonomy as revised by Glasson (2005) in ascending order of sophistication.

Mintre and Lie (2020) explained that Bloom's taxonomy consists of six levels of thinking (Figure 2.3) and they are organised according to the cognitive processes involved and offer examples of how these might be applied to reading instruction:

- Remembering - This level includes knowing or eliciting facts and ideas. For example, "Where and when did the story take place?" (p.4). Learners are expected to recall or recognise information and ideas.
- Understanding - This level involves simple comprehension, understood considering new vocabulary learned from the text, whereby the learners are expected to make their own meaning. For example, asking the learners to briefly summarise the main ideas in the story. Learners are expected to interpret or summarise the main ideas in their own words.
- Applying – This level refers to employing a technique to answer a problem. An example of the question can be "If you were in a problem situation like the one in the book, how would you have acted"? (p.4) Learners use their problem-solving abilities to find solutions to different situations.

- Analysing - Analysing refers to breaking up the texts and analysing how each section of the text is connected to form the whole. It is about understanding how the different sections in a text are connected to each other. An example of the question may be “What motive did the main character have for behaving in the way they did?” (p.4) The learners are expected to examine concepts or ideas and to break them down into basic parts to solve the given problem.
- Evaluating – Evaluating a text requires that the reader make a judgment. The example of the question can be, do you agree with the actions of the main character” (p.4)? The learners are expected to use criteria to support opinions and views.
- Creating – Creating requires the learners to connect parts of the text into a whole using problem-solving and creative thinking. An example of a question is, if you could only save one character from the book in the event of a disaster, which one would it be and why?” (p.4).

Jefferson et al. (2017) suggested that DI changes how reading comprehension is taught because the teacher employs differentiated reading comprehension activities depending on the learning needs of individual learners in the classroom.

2.4.5. What do we need to know about teaching reading comprehension in a second language?

As noted by Ahmed and Rajab (2015), reading comprehension includes both lower-level and higher-level processing. It does not matter which language the reader reads, first or second language, effective reading constantly needs “the use of both higher and lower-level processing” (p.42). However, a vital difference between reading in your first language and someone reading in a second language is that reading in second language depends predominantly on lower-level processing.

Melby-Lervåg and Hulme (2013) maintain that there are three theoretical justifications for promoting second language acquisition. The first theoretical justification that highlights the difference between developing literacy in a first versus a second language is grounded in the work of Cummins (Melby-Lervåg & Hulme, 2013). Cummins argued that second-language learners’ home language proficiencies can assist in enriching second-language literacy development, because learners transfer the skills from their home language when learning

the second language. He argued that the development of second-language skills is influenced by a number of socioeconomic related factors. For example, the learners who are from an advanced socioeconomic home environment are more likely to learn to read in the second language at a quicker pace because they are exposed to printed materials and other educative media at home. On entering school, these learners have certain language proficiencies which are similar to the language requirements in schools (Melby-Lervåg & Hulme, 2013).

The second theoretical justification is grounded in the conception of contrastive analysis of Connor (cited in Melby-Lervåg & Hulme, 2013). According to this view, both the home and second languages are examined with the aim to find necessary features for developing language. For example, the skills are related to the sound system of the language, the grammatical structure and the meaning conveyed. It is also used to detect connections and dissimilarities, which may enable or hinder the development of the second language. Thus, orthography (written language) is an essential moderator feature (Melby-Lervåg & Hulme, 2013).

The third theoretical justification is based on time-on-task (Porter, cited in Melby-Lervåg & Hulme, 2013). Commonly, acquiring new language skills is based on the experience you have in that language. In other words, the extent to which the home language is developed (or not) at home and at school may have a negative impact on learning of the second language. Subsequently, learners who use both the home and the second language at home have sound knowledge of second-language skills compared to learners who only use their home language. Thus, the language used at home and the language used for instruction at schools are essential mediators for developing language (Melby-Lervåg & Hulme, 2013).

Differences between the home and second- language learners with regards to reading comprehension are controlled by test-specific features, for example, it is more difficult for second-language learners to respond to open-ended questions that require more detail. They generally find it easier to answer multiple choice and closed-ended questions that require recall and remembering. Furthermore, second language learners find it more difficult to find information from the whole text rather than from a specific sentence (Melby-Lervåg & Hulme, 2013).

2.4.6. The challenges of learning to comprehend texts in Namibia

Shapaka (2015) conducted a study on reading comprehension in Namibia, Oshana region. The research sought to identify the factors that constrained the reading comprehension of Grade 5 learners in English Second Language in the Oshana region. Data was gathered by means of questionnaires and interviews. The findings from the questionnaires and interviews revealed that Grade 5 learners in the Oshana Region experienced significant difficulty comprehending simple texts. Her research showed that the reading comprehension difficulties of Grade 5 learners were a result of English being an additional language for the learners. Other justifications that were used to elucidate comprehension difficulties amongst the Grade 5 learners included a limited vocabulary and exposure to reading brought on by a lack of appropriate reading materials, poor knowledge of English and the pronunciation of words, and a lack of interest in reading materials. Furthermore, she identified that the teaching approaches did not provide learners with the strategies to read and comprehend the texts. Acosta (2019) acknowledges vocabulary knowledge as one of the powerful contributing skills “to learners’ ability to read and acquire new information from texts in both L1 and L2” (p.58). She further points out that inadequate exposure to wide range of vocabulary may result in hindering reading comprehension.

Shapaka (2015) suggested that the MoEAC should provide primary school teachers in Namibia with continuous professional development in reading comprehension to address the variety of reading comprehension difficulties the learners may have. She maintained that this would empower teachers to employ various approaches to develop learners’ reading comprehension. Shapaka (2015) adds that, teachers should possess the requisite specialisation required to teach English as a subject and reading in particular; and that there should be a wider variety of reading materials for learners to develop fluency.

2.5. CONCLUSION

It is against this background that this action research study aims to explore how LS (as an approach to professional development) can be used to support Grade 2 teachers in implementing DI to develop their learners’ reading comprehension. It appears that LS may be

a useful vehicle to support the teachers in implementing DI as LS allows teachers to take account of their own professional development. As noted in Chapter 1, LS is based on the principle of shared learning and anticipates developing and upholding the foundation of communities of practice that emphasises planning, teaching and reflection on the research lesson. In LS, the teachers work collaboratively to improve their understanding of teaching learners to comprehend texts (Hendayana, 2010). In this way, teachers are not reliant on the MoEAC to provide professional development opportunities on teaching reading comprehension.

CHAPTER THREE: THEORETICAL FRAMEWORK

3.1. INTRODUCTION

Kemmis et al. (2014a; 2014b; 2014c) suggest that the Theory of Practice Architectures (ToPA) provides a means of understanding professional practices and the factors that enable and constrain such practices. The ToPA draws attention to the social world, particularly the different ways in which the participants of a practice, their relationship with each other and objects, and the discourses and activities intertwined in and through practice (Edwards-Groves, 2018, p.8). In this research, the ToPA was used to understand how the practice of LS supports teachers in using DI to develop learners' reading comprehension.

While practice theory is not new, the ToPA was developed by Kemmis and Grootenboer in 2008. Studies that draw on this theory have been carried out in contexts that focus on the induction of new teachers into the profession, early years education (Rönnerman et al., 2017 (Sweden)); mathematics education (Grootenboer, 2013 (Australia)); educational leadership (Edwards-Groves, Grootenboer, Ronnerman, 2016; Grootenboer, Edwards-Groves & Rönnerman, 2020 (Australia)); and English Education (Edwards-Groves & Grootenboer, 2015 (Australia)). As evident in the above references, the ToPA has been used primarily in Australia and the Scandinavian countries. To my knowledge, there is no study that has drawn on the ToPA to analyse and explain how the practice of LS supports teachers in implementing DI to develop learners' reading comprehension.

3.2. PRACTICES

Kemmis and Grootenboer's (2008) Theory of Practice Architectures was built on the work of Theodore Schatzki (2002, 2010), a philosopher with an interest in understanding and theorising practice. Nkhahle (2021) drawing on Schatzki, suggests that "practices are organised bundles of 'sayings' and 'doings', meaning that a particular practice is associated with a distinctive language and distinctive activities and set-ups" (p.10). Schatzki (2010) explained that the 'doings' and 'sayings' that form the practice are 'densely interwoven mats'

(p.87) in which human beings encounter each other in understandable ways. Building on Schatzki's ideas, Kemmis et al. (2014a, 2014b, 2014c) extended the explanation of practice and described it as a:

socially established cooperative human activity in which characteristic arrangements of actions and activities involving utterances and forms of understanding ('sayings'), modes of action ('doings'), and customs in which people relate to one another and the world ('relatings') that 'hang together' in characteristic ways in distinctive 'projects' (p.27).

Kemmis et al's. (2014a, 2014b) conception of practices incorporates 'relatings'. He argues that 'relatings' are important in understanding practices as the participants in a practice not only relate to each other, but also objects (material and non-material) in the world (Kemmis & Groves-Edwards, 2018). Kemmis and Grootenboer (2008), Mahon et al. (2017), and Kemmis et al. (2014a, 2014b) maintain that within a practice there are 'relatings' between persons, and persons and objects, and these are part of the 'densely interwoven mats' referred to by Schatzki above. Thus, the ToPA provides a theoretical framework for analysing and explaining practice, specifically the 'sayings', 'doings' and 'relatings' of the practice.

The 'sayings' of the practice are formed through the characteristics of the ideas and discourses as they emerge from the language of the practice (Kemmis et al., 2014a). The 'doings' of the practice include the objects and spatial arrangement when participants engage in the practice (Kemmis et al., 2014a). The 'relatings' of a practice is brought to the site through the relationship between people, and people and objects, involved in the practice (Kemmis et al., 2014a). The 'doings', 'relatings' and 'sayings' take shape in the genuine happenings occurring between people and objects at a particular time.

These 'sayings', 'doings' and 'relatings' all unfold inter-subjectively and discursively in a practice in "three interdependent ever-present media: in the media of language and thought in semantic space, in the media of activity in physical space-time, and in the media of relationships and power in social space" (Grootenboer & Edwards-Groves, 2019, p.434).

To illustrate and in relation to my research, the use LS consists of:

- specific 'sayings' realised through language and ways of thinking about DI (e.g., the discourse of inclusion, the terminology used in the LS, the language of interaction between the participants in the LS);

- specific ‘doings’ realised through actions and activities (e.g., reading about DI, planning lessons, implementing lessons and reflecting on the lessons in the LS process); and
- specific ‘relatings’ realised through the relatings amongst teachers, and teachers and learners (e.g., the relationships between the teachers, and with the learners and materials as they engage in the LS).

ToPA thus provides a three-dimensional means of understanding LS as a practice, that is, in terms of the language use (discourses), the material or resources available, and the relationships between the teachers and learners and their teaching and learning environment.

As highlighted in Figure 3.1, these three dimensions of a practice work together in the form of a project. The project of this research is the practice of LS to develop the use of DI to foster learners’ reading comprehension in English as a Second Language.

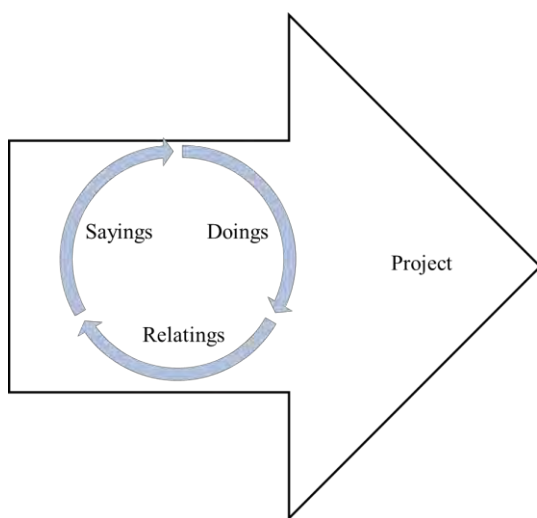


Figure 3. 1: The ‘sayings’, ‘doings’ and ‘relatings’ of a practice hang together in the form of a project (Kemmis et al., 2014a, p.32).

In this research, LS is a particular kind of practice with its own ‘sayings’, ‘doings’ and ‘relatings’.

Practices occur in three types of intersubjective spaces. That is, spaces where the participants of a practice encounter each other as “interlocutors, in interaction and in interrelationships”

(Hemmings et al., 2013, p.474). These intersubjective spaces include the semantic space (meanings), physical space-time (set-ups) and social space (relationships). The semantic space makes mutual understanding and the development of a shared language possible. The physical time-space is where shared activities occur, and the social space, is where relationships are made possible (Hemmings et al., 2013).

Within these three spaces, practices are brought into being by three arrangements, that is, the cultural-discursive, material-economic, and social-political (Kemmis & Heikkinen, 2012; Kemmis & Groves-Edwards, 2018). The 'doings', 'sayings' and 'relatings' make up a practice and practice arrangements enable and constrain the practice.

3.3. PRACTICE ARRANGEMENTS

The ToPA focuses on practices as they occur in three intersubjective spaces. These practices, that are the 'sayings', 'doings' and 'relatings' are brought about by three intervening preconditions. These are the cultural-discursive, material-economic, and social-political arrangements (Hemmings et al., 2013). The 'sayings' of the practice presume the existence of cultural-discursive arrangements that take place through the means of language. The 'doings' assume the existence of material-economic arrangements that are brought to the fore in shared locations in time and space. The 'relatings' assume the existence of social-political arrangements that are brought into being in the social space (Hemmings et al., 2013). These practice arrangements condition and are conditioned by the 'sayings', 'doings' and 'relatings' of the practice. Thus the ToPA provides an account of what practices comprise and the arrangements that condition the practices (Kemmis et al., 2014a).

3.3.1. The cultural-discursive arrangement

The cultural-discursive arrangements are "the resources (in the broad sense of the word) that prefigure and make possible particular 'sayings' in a practice" (Mahon et al., 2017, p. 8). These include the language and discourses of the practice. The cultural-discursive arrangements may enable and/or constrain the practice. For example, the teachers' utterances and thoughts during the research influence the practice of LS in either positive and/or negative ways. Thus, our LS practice is shaped by the language of the participants. The 'sayings' occur

semantic space and are expressed through language. They refer to what people think and say as they engage in the activities related to the practice (Kemmis & McTaggart, 2008). In other words, the 'sayings' are expressed through language. In the context of this research, the cultural-discursive arrangements that condition the 'sayings' were realised through the language the teachers' used during the LS sessions as we engaged in the project of using LS to develop our use of DI to promote learners' reading comprehension in English as a Second Language.

3.3.2. Material-economic arrangements

The material-economic arrangements condition the 'doings' of the practice. They occur in physical space-time and take form through the activities in the practice. They present in what people do, their interactions with people and non-human objects, in the setting where the practice takes place (Kemmis & McTaggart, 2008). The material-economic arrangements include all activities that "make possible or shape the 'doings' of a practice by affecting what, when, how, and by whom something can be done" (Mahon et al., 2017, p.10). For example, the time constraints that teachers experienced during the course of the LS process, shaped the 'doings' of the practice.

3.3.3. Social-political arrangements

The 'relatings' of a practice are conditioned by the social-political arrangements in a social space. These are made evident through relationships of solidarity and power (Kemmis & McTaggart, 2008, p.4). Kemmis et al. (2014c) acknowledges that practices are imbued with power relations and that these relations impact on the way people interact with each other and non-human objects in the practice. Social-political arrangements include the rules, hierarchies, relationships of power and solidarity. These social-political arrangements condition how people relate with each other and with non-human objects in a practice (Kemmis & McTaggart, 2008, p.4). As such, they constrain and enable the 'relatings' of a practice (Mahon et al., 2017).

In summary, the ToPA, offers a mode to analyse and explain practices by illuminating the interconnectedness between the practice and practice arrangements.

Figure 3.2 summarises how the project of a practice is held together by the practice arrangements.

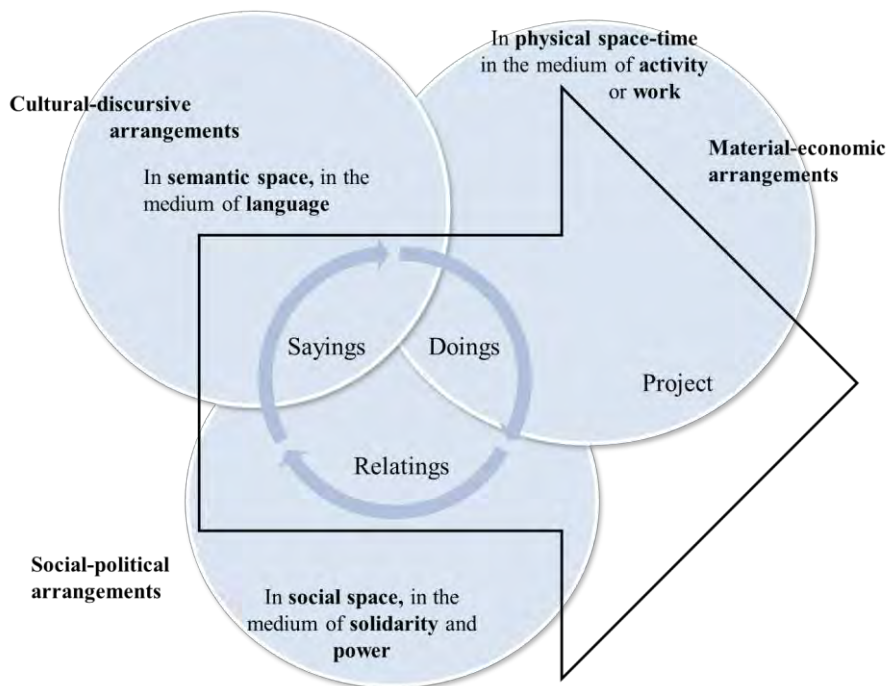


Figure 3. 2: The 'sayings', 'doings' and 'relatings' of a practice are held in place by practice architectures. (Adapted from Kemmis et al., 2014a, p.34).

Evident from the above is that the 'sayings', 'doings' and 'relatings' of a practice do not occur in a vacuum. It is the cultural-discursive, material-economic, and social-political arrangements that make them possible (Kemmis & Groves-Edwards, 2018). In my study, I applied the ToPA theory as a lens to examine how LS can be used to support Grade 2 teachers in implementing DI to develop learners' reading comprehension.

Kemmis and Smith (2008) note that "when practice becomes simple rule-following, the *moral agency* of educators is at stake and they become an *operative* of the system in which they work" (p.8). ToPA allows us "first, to theorise practices as they happen in sites; and second, it allows teachers to see their professional practice as a form of praxis where they overtly consider the affective dimension of their pedagogy" (Grootenboer, 2013, p.151). It is this notion of praxis that is central to the work of Kemmis and colleagues as it shifts the focus of practice as having potential to work towards the achievement of the social good. In this sense, this research explores how LS can be used to support teachers' use of DI to develop learners'

reading comprehension. As noted in Chapter 1, reading is one of the most important competencies (Pearson, 2015). Ensuring learners can comprehend various texts provides them with a chance to participate actively in society.

3.4. PRAXIS

One of the central goals of the ToPA is the development of praxis (Kemmis, 2010). The origin of praxis as articulated in the ToPA is based on the work of Aristotle and Marx. There are two interrelated interpretations that explain what praxis is. The first view originates from Aristotle, who explains praxis as “action that is morally committed and oriented and informed by traditions in a field, that is, action that aims for the good of those involved in the practice and for the good for humankind” (Kemmis et al., 2014a, p.26). In my research, praxis may mean that the participants work together to improve our practice with the view to developing learners’ reading comprehension. As noted in Chapter 1, the reading competence of learners in Namibia is of concern. The second interpretation is informed by the views of Hegel and Marx. In this view, “praxis is history-making action, that is an action with moral, social and political consequences good or bad for those involved or affected by it” (Kemmis et al., 2014a, p.26). In my research, this may mean teachers working in a professional manner are responsible for their own actions and behaviour and need to be sensitive to the effects of their actions on the learners.

3.5. THE USE OF THEORY OF PRACTICE ARCHITECTURE IN RESEARCH

As noted in the introduction to this chapter, the ToPA has been used in research in various different educational fields.

Salamon et al., (2016) explained that the ToPA was used in Early Childhood Education (ECE) to developed early year’s teachers’ professionalism. The researcher found ToPA useful in providing an understanding of the participants’ knowledge and interpretations of their own practice. The ToPA was further used as a means to assist ECE teachers in interrogating their

particular profession over “deconstructive talk” (p.1). For example, it was utilised as a mode for experimenting their accepted, unquestionable and uncommon notions of their practice.

The application of the ToPA assists in highlighting the conditions under which practices unfold. The educators have also utilised ToPA to get deeper insights of their practice and they have practically utilised it to study the arrangements. (Salamon et al., 2016).

ToPA has also been beneficial in tertiary, secondary and primary education. Grootenboer and Edwards-Groves (2019) conducted a study where they utilised ToPA. The study was done to offer a practice viewpoint for mathematics instruction and mathematics knowledge, looking at the link “between how developing a mathematics identity is bound up with the ‘sayings’, ‘doings’ and ‘relatings’ one experiences in classroom mathematics” (p.1). The ToPA was utilised in their study as a theory for drawing understanding of mathematics learning and identity development. The ToPA was applied as an analytic framework to scrutinize empirical data from a primary school mathematics lesson. Conclusions outlined the means that knowledge “rises from being stirred into the characteristic site-based practices, and mathematical identities are articulated in and, at the same time, exert pressure on the ‘sayings’, ‘doings’, and ‘relatings’ encountered in lessons”. (Grootenboer and Edwards-Groves, 2019, p.434).

One of the examples is the study that was done at the primary education level. It was done to offer a practice viewpoint of mathematics instruction and knowledge acquisition of mathematics, by way of looking at the link at how evolving a mathematics character is inevitable by means of the ‘sayings’, ‘doings’ and ‘relatings’. The ToPA was utilised in this study as a theory for drawing understanding of mathematics learning and identity development. ToPA was further applied as a systematic structure to scrutinise data generated from a primary school during mathematics the lessons. Conclusions outlined the methods that learning escalates as results of being stimulated into the specific situate grounded actions, and mathematical characteristics are articulated concurrently at similar time interval. Looking at this, it is claimed that it is significant that learners should be involved in explicit central mathematics activities if the teachers want to enhance and cultivate optimistic mathematical personalities (Grootenboer & Edwards-Groves, 2018).

3.6. CONCLUSION

The purpose of this chapter was to explain the theoretical framework informing my research. The chapter provides an explanation of practice as developed by Kemmis et al. (2014a, 2014b, 2014c). Practices consist of the 'sayings', 'doings' and 'relatings' but these do not occur in a void, rather, they are mediated by three practice arrangements, that is, the cultural-discursive, material-economic and social-political arrangements. In striving for the social good, practices have the potential to develop into a form of praxis.

In the next chapter, I focus on the methodology of the research and elaborate on how I used the ToPA as a methodological tool.

CHAPTER FOUR: METHODOLOGY

4.1. INTRODUCTION

Kemmis and McTaggart (2008) stress that an action research changes peoples' practice, their understandings of their practices and the conditions under which they practise. It changes people's patterns of 'saying', 'doing' and 'relating' to form new patterns and new ways of life.

In this chapter, I present the research methodology for this study. Methodology is a design or an arrangement that researchers employ to enable generation of data and possible responses to research investigations (Harrison et al., 2020). In this chapter, I will share the methodology that I employed to attain the purposes of my study. Imperative features that will be discussed in this unit are the orientation, research method, site and sample, data generating methods, data analysis, validity and trustworthiness, and ethics of this study.

The research seeks to:

- gain an understanding of DI and how to implement it;
- use LS as a professional development tool to support teachers in implementing DI to develop learners' reading comprehension;
- ascertain how teachers can improve the teaching of reading comprehension using DI;
- identify the enabling and constraining factors that teachers experience during the LS study process; and
- identify the enabling and constraining factors that teachers experience in teaching reading comprehension through the use of DI in Grade 2 classrooms.

As highlighted in Chapter 1 the research asks the question: How can LS be used to support Grade 2 teachers in implementing Differentiated Instruction to develop learners' reading comprehension in English Second Language? The related sub- questions include:

- What are Grade 2 teachers' understandings of Differentiated Instruction?

- How can Lesson Study be used to support teachers' implementation of Differentiated Instruction to develop all learners' reading comprehension?
- What are the factors enabling and constraining the use of Differentiated Instruction to develop learners' reading comprehension in Grade 2?
- What are the factors enabling and constraining the use of Lesson Study?

This research is a qualitative action research based on the LS process and it is underpinned by an interpretivist orientation.

4.2. METHODOLOGY

My research is a qualitative action research that is underpinned by an interpretative orientation. Wayse (2011) defined qualitative research as mainly investigation research as it is used to get an understanding of people's explanations, views and motivations for certain actions. It gives the researcher an opportunity to cultivate an extensive understanding of the problem being studied.

4.2.1. Research orientation

Bertram and Christiansen (2014) maintain that interpretivism aims to comprehend social behaviour and how people create meaning of their experiences. They stressed that interpretivism is grounded in the assumption that there is no single reality, but rather, numerous interpretations, i.e., of the realities of the happenings in the world. Put differently, an interpretivist orientation is premised on the view that people's realities are based on their subjective experiences. Alvermann and Mallozzi (2010) proposed that interpretivism means "an approach of social life with an assumption that meaning of human action is inherent in action" (p. 12). As for this study, the research concentrated on the use of LS to support teachers in implementing DI to develop learners' reading comprehension. Together, the participants and I (the researcher participant) interpreted 'the events' or happenings (practices, that is, sayings, 'doings' and 'relatings') based on our own personal experiences and understanding of the LS practice.

According to Giddens (1984) the investigation of the dynamics of action research, which is well-matched with the LS process, comprises an unravelling of the trials of the double hermeneutics. The 'double hermeneutic' (Giddens, 1984) refers to a concern with interpretivist research, that is, that the researcher must deal with two levels of interpretation, that of the participants, and that of the researcher. Together with the teachers, I interpreted the LS process, but then I have also interpreted the teachers' interpretation of the LS process in the writing of this thesis. In other words, there are two layers of interpretation: (1) the teachers and I as participants in the study; and (2) me as the researcher.

4.3. RESEARCH METHOD

This study took the form of an action research. Action research "is critical (self-critical) collaborative inquiry by reflective practitioners being accountable and making results of their enquiry public, self-evaluating their practice, and engaging in participatory problem solving and problem posing, and continuing professional development" (Zuber-Skerrit, 2009, p.85).

Action research seeks to improve teachers' self-confidence, understanding of their practice, and examines their principles and visions (Goodnough, 2003). It is a method of research where teachers study their practice with a view to improve it. Action Research boosts self-reflection and cultivates knowledge of the nature of practices, in this case pedagogical practices (Noffke & Zeichner, 1987). The focus is to improve the quality of teachers' work.

Action research changes people's practices, their understandings of their practices, and the conditions under which they practice. It changes people's patterns of 'sayings', 'doing' and 'relating' to form new patterns – new ways of life. It is a meta-practice: a practice that changes other practices. It transforms the 'sayings', 'doings' and 'relating' that compose those other practices. (Kemmis, 2007, p.2).

As with LS, action research is cyclical in nature and consists of specific cycles of action. As explained in Chapter 2, the LS process models that of action research. The number of steps in the action research process differs according to the various researchers who have a special interest in action research (Cohen et al., 2018). In this research, I model the action research steps on my LS process as shown in Figure 2.1. Once the problem guiding the study has been identified, the LS process consists of planning lessons to attempt to 'resolve' the problem,

implementing the lessons and reflecting on the lessons with a view to address the problem (Burney, 2004).

I refer below to the action research stages in the LS process in my research after the Grade 2 teachers and I, identified that the learners' reading comprehension in English as a Second Language was a concern (Chapter 1). We then planned to address the problem using LS as this is a form of collegial professional development. Given that DI is a key principle underpinning the curriculum; we decided to use DI as our strategy to develop learners' reading comprehension. To summarise our action research process included:

- Goal setting and planning action: We planned the research lessons collaboratively. As noted in Chapter 2, the lessons planned in the LS process are sometimes referred to as 'research lessons'.
- Taking action: We implemented and observed the research lessons.
- Evaluating action: We reflected on the taught lessons and used these reflections to inform the planning of the next lesson.

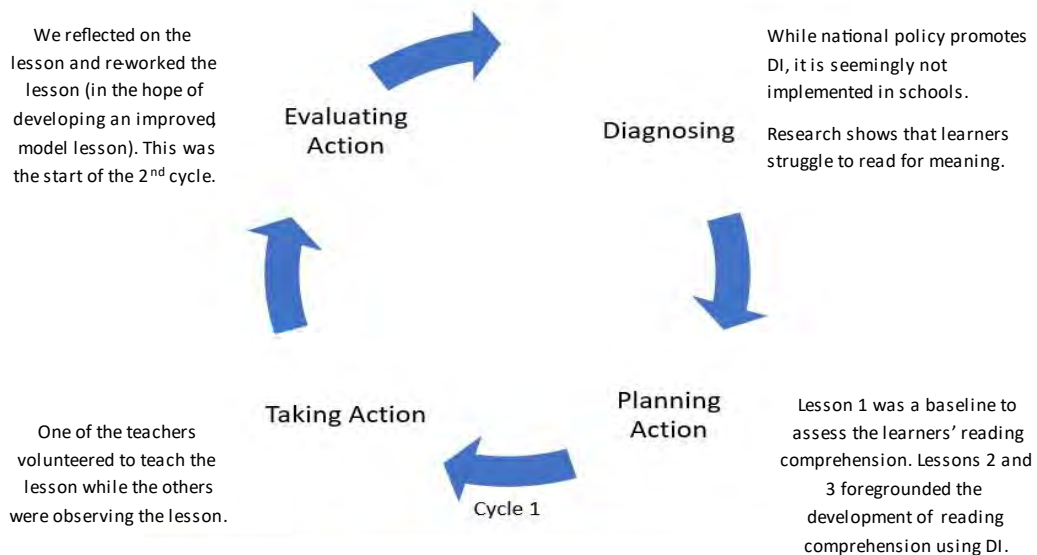


Figure 4. 1: The Action Research Cycles in my Research (Adapted from Coghlan & Brannick, 2001).

As shown in Figure 4.2 we worked through three cycles of the Action Research process. While the objective of all the lessons was the same, we planned a different lesson for each cycle building on the insights drawn from the previous lesson or lessons.



Figure 4. 2: The LS Cycles in my research.

Figure 4.2 provides a diagram of the actual LS and action research processes for this study. It shows the three different cycles of the LS and action research process and the stages within each cycle.

4.4. THE RESEARCH SAMPLE

Gay et al. (2012) stated that “a sample is a group of individuals that represent the characteristics of the large group from which the sample is drawn” (p. 54). In other words, it is the research participants taken from a population that entails making choices about which persons, settings, events or behaviours to take in the study.

Purposive and convenient sampling were utilised for this study. Purposive sampling is “when a researcher makes a specific choice about which people, group or object to include in the sample” (Bertram & Christiansen, 2016, p.60). The sample of this study consisted of two Grade 2 teachers (my colleagues) and me (the researcher and participant). Bertram and Christiansen (2016) describe convenience sampling as a mode of selecting a sample which is easy for the researcher to get hold of and it is determined by a specific reason. As such, this can be considered a convenient sample as the three of us work together and were able to plan, observe each other’s teaching and reflect on our observations and lessons. My role was both participant and researcher in supporting the Grade 2 teachers through the LS process in implementing DI to develop learners’ reading comprehension skills. I am by no means an expert on DI and so this was also a learning opportunity for me. I chose the two teachers because they are familiar with DI as I worked with them in my Honours research project.

The researcher had more experience in teaching than either of the other teachers who participated in the research, however all had 4 or more years of teaching experience, and 3 or 4 years’ experience teaching grade 2. Table 4.1 provides a summary of the teachers’ teaching experience, qualifications and ages.

Table 4. 1: The Teachers’ Highest Qualifications, Ages and the Numbers of Years Teaching Experience.

Names	Ages	Highest qualification	Years of teaching	Years of teaching in Junior Primary	Years of teaching in Grade 2
Teacher A	28-30	Diploma in Junior Primary	5	4	3
Teacher B	28-30	Diploma in Junior Primary	6	6	4
Teacher R	34-38	B.Ed. Hons	12	12	3

4.5. THE RESEARCH SITE

This study was conducted at Success Combined School (pseudonym) in the Endola Circuit, Oshana Regional Directorate of Education. This is a rural school on the border of Namibia and Angola. The school consists of classes ranging from Grades zero to nine. There is a principal, 27 teachers and 3 institutional workers. The school has 750 learners and most of them are from economically disadvantaged backgrounds. Oshikwanyama is the mother tongue of most, if not all, the teachers and learners and is also the medium of instruction in the Junior Primary Phase. This study focused on reading comprehension in the learners' second language, which is English. English is introduced conversationally in pre-grade (Grade R) and learners are expected to read and comprehend texts from Grade 1.

4.6. DATA GENERATING PROCESS AND TECHNIQUES

My data generating process consisted of four phases.

4.6.1. Data generation phases

Phase 1: In the first phase I conducted individual, semi-structured interviews with the two Grade 2 teachers. The purpose of the interviews was to gather background information from the teachers, which includes their qualifications and years of teaching. It also afforded me the opportunity to ascertain their understanding of DI and how they implement DI in their classrooms. These interviews were audio-recorded and I transcribed them verbatim immediately after each interview. These interviews helped to answer my first research sub-question which: What is the Grade 2 teachers' understanding of Differentiated Instruction?

Phase 2: After the interviews, I analysed the data to identify the teachers' knowledge of DI. I planned a workshop in which I explained DI and the process of LS. We discussed the goal of the LS and the process. I also explained the observation schedule that I had designed, paying attention to all the sections of the schedule. Key concepts relating to DI (e.g., content, process and product) were explained to the teachers as they were included in the observation schedules' questions.

Phase 3: The following steps were implemented for all the three lessons in the research cycle conducted. This phase had three steps which were applied in all the three LS (and action research) cycles:

Step 1 - the two Grade 2 teachers and I planned the initial lesson.

Step 2- Teacher R (the researcher, which is me) taught that lesson while Teacher A and Teacher B observed and recorded their observations on the structured observation schedule that I had developed and explained to the teachers earlier.

Step 3 - We reflected after each lesson by discussing the observation schedules. This step was the evaluation of the outcomes to improve the planning and presentation of the next lesson. This phase was done repeatedly for three cycles. Each teacher had an opportunity to observe and teach one of the three lessons.

This phase helped me to answer the second sub-question of my study: How can Lesson Study be used to support Grade 2 teachers' in implementing Differentiated Instruction?

Phase 4: This was the last phase of my data generating process that took place after the LS process. The purpose of this phase was to ascertain the enabling and constraining factors related to the LS process and the use of DI in developing learners' reading comprehension. I conducted a semi structured, individual interview with each of the two teachers. This was useful to answer my third and fourth research sub-questions: What are the factors constraining or enabling the use of Differentiated Instruction when teaching reading comprehension in Grade 2? What are the factors enabling and constraining the use of Lesson Study?

The data generation techniques used in my research were observations, document analysis, and individual interviews.

4.6.2. Interviews

An interview "is a conversation between the researcher and the respondent ... it is a structured conversation where the researcher has in mind particular information that he or she wants from the respondent and has designed a particular question to be answered." (Bertram & Christiansen, 2014, p.80). The first interview was an individual interview, it was

used to gather background information from the teachers, to ascertain their conception of DI and how (if) they incorporate it in their classrooms. These interviews were audio-recorded, and I transcribed them verbatim immediately after each interview.

At the end of the research process, I conducted semi-structured interviews with the two teachers, which were also audio recorded and transcribed. Cohen et al. (2018) define a semi-structured interview as a dialogue between the researcher and respondent. Semi-structured interviews comprise questions (mostly open-ended) which focus on the research questions. The researcher is able to pose follow up questions based on the responses of the research participants (Bertram & Christiansen, 2015). These interviews helped me to find the constraining and enabling factors as they experienced during the implementation of DI to develop learners' reading comprehension. It also afforded me chance to generate data about the participants' experiences, perceptions, opinions and interpretations of how LS can be used to support teachers, and this was done during the post-interview.

4.6.3. Observation

In this study, I also made use of observation to gather the data. Observation is a systematic data generating approach. It is explained "as the process of gathering first-hand information, by observing or watching the participants in order to gain information" (Gay et al., 2012, p.21). The researcher makes use of all the senses to examine people in their normal situations. There were two stages of observation in my research: each responding to a different question. The first level of observation, which focused on the implementation of DI in the classroom, was based on our observations in the classroom. We used structured observation schedules (Appendix 1) to document our observations. The observation schedules were explained to the teachers before the LS cycle started (Phase 2 above) and this was done during the first meeting with the teachers. This helped us to have a clear idea of what to observe when we observed each other's teaching during the implementation of DI in the classroom.

The second level of observation was specific to my role as the researcher. To ascertain how LS could be used to support the Grade 2 teachers in implementing DI to develop learners' reading comprehension, I had to observe the LS process, that is planning, implementation (teaching and observing) and reflection. Figure 4.3 provides an explanation of the two levels of observation during the research process.

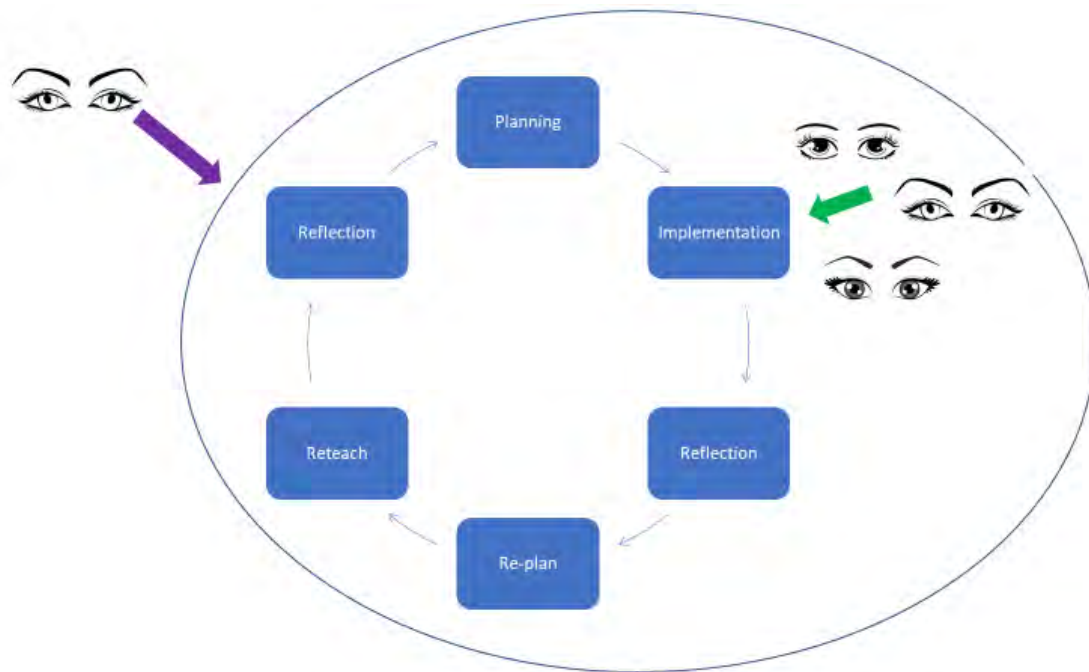


Figure 4. 3: An Explanation of the Two Different Levels of Observation

I was a participant observer in this research. Bertram and Christiansen (2016) defined a participant observer as a “researcher who takes on an insider role in the situation studied” (p.15). Put differently, the researcher plays an active role in the research process (Stage et al., 2006). A video-recorder was placed strategically at the back of the classroom to capture and focus on how the DI was incorporated. This was useful for the reflection sessions as we could use the video to reflect on the learners’ learning and the teachers’ actions during the lesson.

The observation schedule had two sections, the first section was completed during the lesson presentation and the second section was completed during the reflection session (i.e., while we were observing the video). The purpose of the pre-developed observation schedules was to focus our observations while watching each other present a reading comprehension lesson using DI. These observation schedules were not only used to guide the reflection sessions, but they were also used as part of my research data to examine how LS was used to support the teachers use of DI to develop learners’ reading comprehension.

Each teacher was given an opportunity to teach while the other two teachers observed. All the research lessons occurred in the same class. The teachers and I decided which of the Grade 2 classes we wished to teach in.

4.6.4. Document analysis

Hopkins (cited in Nekondo, 2017) explains that document analysis “provides context, background and understanding of issues that would not otherwise be available” (p. 43). It involves studying documented data such as guidelines, summaries of meetings, teachers’ lesson preparation and learners’ work (Mbelani, 2007). I made use of document analysis as I analyzed the structured observation schedules that we completed during each lesson and the lesson plans that we designed during the LS process.

Table 4.2 provides summary of data collecting techniques, the purposes, and the research questions answered by each data collecting technique used for each phase during data collection process.

Table 4. 2: The Data Generating Techniques, Purposes, and Research Questions

Data generating techniques	Purpose:	Sub-research questions
Semi-structured interview (initial interview)	To gain an understanding of DI and how to implement it	What are the Grade 2 teachers’ understandings of DI?
Observation schedules and reflection notes	To use LS as a professional development tool to support teachers in implementing DI to develop learners’ reading comprehension	How can Lesson Study be used to support teachers’ implementation of Differentiated Instruction to develop all learners’ reading comprehensions?
Post-interview	To ascertain how teachers can improve the teaching of reading comprehension using DI To identify the enabling and constraining factors that teachers experience during the LS study process To identify the enabling and constraining factors that teachers experience in teaching reading comprehension through the use of DI in Grade 2 classrooms.	What are the factors enabling and constraining the use of Differentiated Instruction to develop learners’ reading comprehension in Grade 2? What factors enable and constrain the use Lesson Study?

4.7. REFERENCING CONVENTIONS

Table 4.3 shows the referencing conventions for the interviews and LS process. The participants were coded as TA, TB and TR. Teacher R is me, the researcher. The reflection schedules based on each lesson are referred to as L1, L2 and L3. TAL1 means that the comment that I am referring to was made by Teacher A in Lesson 1. This applies to TB and TR too. Lesson 2 and Lesson 3 are represented by L2 and L3 respectively.

Table 4. 3: Referencing Conventions for Pre- and Post-interviews and Observation/Reflection Schedules during LS Process.

Teachers name for pre- and post-interviews	Lesson 1	Lesson 2	Lesson 3
Teacher A	TAL1	TAL2	TAL3
Teacher B	TBL1	TBL2	TBL3
Teacher R	TRL1	TRL2	TRL3

4.8. DATA ANALYSIS PROCESSES

In research, data analysis refers to detecting themes and connections in order to support the claims being made (Koshy, 2005). My data analysis process involved a number of steps.

I transcribed the data from pre- and post-interviews. The data was organised according to the type of data generating tools used. This means that I created two tables (one for the pre-interviews and one for the post-interviews). I stored my data in a number of files to assist with organising and managing my data.

File 1: The initial and post-interviews were transcribed, and each teacher was given a code for example, TA, as explained in the referencing conventions.

File 2: The nine observation schedules were initially recorded manually by the research participants. Thereafter, I generated a soft copy of the teachers' responses and filed both the soft and hard copies of the teachers' observation schedules. The observations schedules were filed according to the dates of the lessons in three separate tables.

Once the data was transcribed and filed, I started to code the data. Firstly, I tried to code the data without looking at the theory that grounds my study. This was helpful to see if there were codes and categories that emerged from the data that are not driven by my understanding of the Theory of Practice Architectures. Each code and ultimately, category, was given a colour and the data re-organised. After this process, I copied and pasted these passages relating to the key themes in the tables. After the initial coding process, several emergent themes and unexpected points of interest presented themselves and required further coding and analysis.

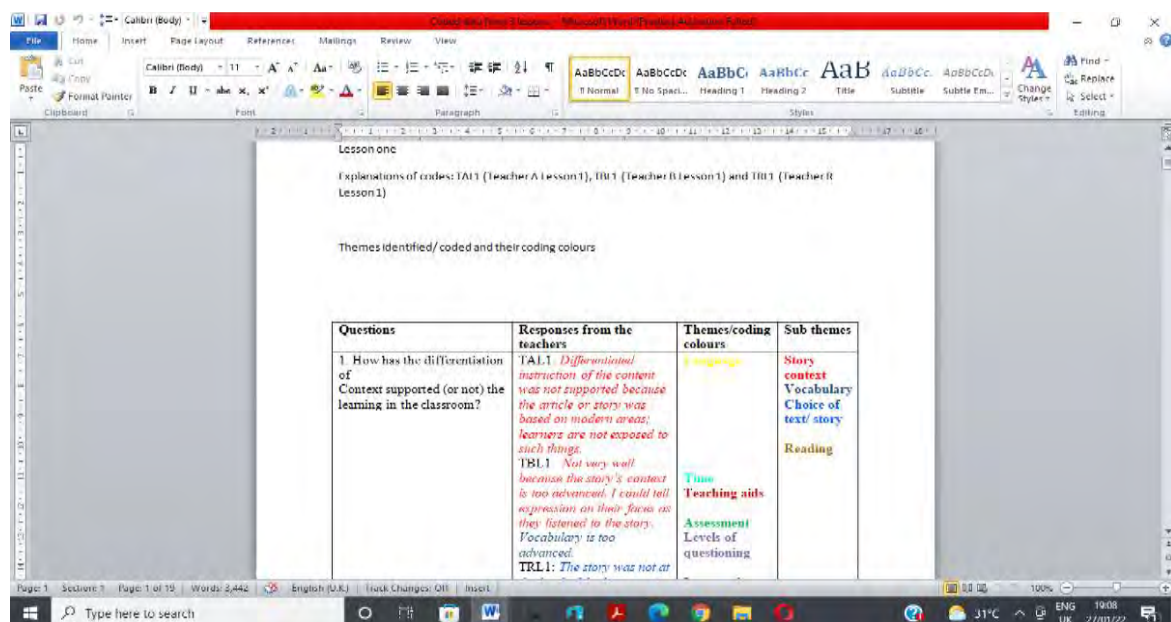


Figure 4. 4: An Example of my Inductive Coding

After coding the data inductively, I used the Theory of Practice Architectures as my lens to analyse the data. Here the focus was on the 'sayings', 'doings' and 'relatings' and the three practice arrangements, namely the cultural-discursive, material-economic and social-political arrangements (Kemmis et al., 2014a, 2014b, 2014c). I made use of the Theory of Practice Architectures in my honours research when I had a challenge separating the practices which are 'sayings' from the 'doings'. I now understand that the 'sayings' refer specifically to the medium of instruction and the *content* of the practice (e.g., terminology used). In analysing the 'doings', I looked for the instructions given by the teacher, the nature of the questions

asked, the physical set-up in the classroom etc. I also looked at the actions of the practice that informed the teachers' actions during the reflection sessions.

Thereafter, I analysed the data by focusing on the three arrangements, that is, the cultural-discursive, material-economic and social-political arrangements. The individual interview was of particular use in understanding how these three arrangements act as enablement and/or constraints in the LS practice (Appendix 2).

I drew on the analytic tool in Table 4.4 to assist in analysing my data etically.

Table 4. 4: Using the Theory of Practice Architectures as an Analytic Tool (Kemmis et al., 2014d, pp.81-82).

Elements of practices	Practice architectures in the site
<p>Project</p> <p>What do participants – including myself and others – say they are doing, or intend to do, or have done? (Note: different participants and others may answer this question differently)</p>	<p>Practice Landscape</p> <p>How different participants and others involved or affected, inhabit the site in different ways, that is, interact with different people and objects, and occupy different places and spaces in the site as a whole.</p>
<p>'Sayings' (communication in semantic space)</p>	<p>Cultural-discursive arrangements (Note: one person's sayings are also practice architectures that enable or constrain others' sayings)</p>
<p>What do different participants say in the practice as they do it (what language is used; especially specialized language used in this practice)?</p> <p>What ideas are the most important to the different participants?</p> <p>What language ideas do different participants use about the practice (specifically to describe, explain and justify the practice before and after they do it)?</p> <p>How are different participants' language and ideas changing?</p>	<p>Where does this special language or discourse come from (e.g., texts, policies, professional communities, language communities)?</p> <p>Who speaks this language in the site? Who speaks it most/least fluently?</p> <p>Is there contestation among people involved or affected about the language, or key ideas or importance?</p>
<p>'Doings' (activities, often producing or achieving something, in physical space-time)</p>	<p>Material-economic arrangements</p>
<p>What are participants doing?</p> <p>Are there any consequences or connections between activities?</p> <p>Are ends or outcomes being achieved?</p>	<p>What physical spaces are being occupied over time?</p> <p>Are kinds of set-ups of objects involved?</p> <p>What material and financial resources are involved?</p> <p>Are the resources adequate?</p>
<p>'Relatings' (relationships in the social space, especially relationships of power and solidarity)</p>	<p>Social Political Arrangements</p>
<p>How do participants and others involved or affected relate to one another?</p> <p>Are there systems of positions, roles or functions?</p> <p>Are relationships of power involved?</p>	<p>What special and administrative systems of roles, responsibilities, functions, obligations and reporting relationships enable and constrain relationships in the site.</p>

<p>Are there relationships of solidarity and belonging (shared purposes)?</p>	<p>Do people collaborate or compete for resources (or regard)?</p> <p>Is there resistance, conflict or contestation?</p> <p>Is the communicative space a public sphere?</p>
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4.9. VALIDITY

Leedy and Ormrod (2005) stress that to warrant the legitimacy of the research, a diversity of data gathering means should be employed. I used observation schedules, reflection schedules, pre- and post-interviews to gather data. Drawing on three or more data producing techniques leads to the triangulation of the data. “Triangulation is a strategy that reduces the risk of chance and of systematic biases due to a specific method and allows a better assessment of the generality of the explanations that one develops” (Maxwell, 1996, p.93). I ensured that my personal reflections were as honest as possible by completing them soon after the lesson presentation, as I drew from Cohen and Manion (2000) who affirm that in qualitative research, data legitimacy might be addressed over the honesty of the researcher. I also guaranteed that the participants had a chance to ‘member check’ (Candela, 2019) the interview transcripts and, given that they participated on a LS (Action Research) project, the conclusions of the research. To ensure accurate data and advice on the data analysis I approached my supervisor. We each coded a section of my data to see if there is agreement to ensure inter-rater reliability (Cohen et al., 2018).

4.10. POSITIONALITY

As the Head of Department (HoD) for the Junior Primary section at my school, a position I have held for the past five years, I am aware of the power relations between the participants and me. My positionality as their ‘senior’ may influence their decision of whether to participate or not in this research. I thus made it clear (repeatedly) that their withdrawal from the research process will have no negative consequences. I know that my position as a participant researcher could have influenced the results. However, I strived to be honest by reflecting on my actions in a reflective journal and being explicit about the aims and focus of

the study. Throughout the research process, I reflected on my role as Head of Department, research participant and researcher. I explained that while I may be more familiar with the LS approach and DI, which is essential for the study, I am not sure how it could work in practice. One possible advantage I had is that these are the same teachers that I worked with during my honours research project. During my honours project we also engaged with LS, although the focus was different. The teachers were very positive with that experience. Nevertheless, I realised that I needed to continually reflect on my positionality.

4.11. ETHICS

Ethical concerns have to do with proper morals and correct manners (Schmuck, 2006) or with “behaviour that is considered right or wrong” (Bertram & Christiansen, 2014, p.65). It includes “privacy, anonymity and confidentiality guaranteed by informed consent” (Mutenda, 2008, p. 42). Before I conducted this study, the following was done to guarantee the privacy of the research participants and the site where this study was conducted.

4.11.1. Permission from Rhodes University

The first aspect of my ethics process was to obtain permission from Rhodes University’s Education Higher Degrees Committee to conduct my research. The ethics proposal is included in Appendix 3.

4.11.2. Seeking for permission to conduct the study

In this study, I sought the permission from Ohangwena Regional Council, through the Directorate of Education Arts and Culture in which the site of this study falls. I also requested additional permission from the office of the school principal. Permissions were requested in forms of official letters of consent (Appendix 4). I also requested the consent of the Grade 2 teachers to be part of my research project through formal consent letters. They granted me the permission by signing the consent letters (Appendix 5). My study’s focus was not on the learners; however, learners were involved because it was a classroom intervention. I invited parents to a parent meeting to inform them about my study. The agenda and minutes of the meeting, plus the consent letters that the parents signed are in Appendix 6.

Twenty-five of the thirty parents gave me permission to conduct the research. Five parents did not give me their consent. Three of these parents did not attend the meeting and two did attend but refused to give me consent to involve their children in my study. That being the case, these learners were part of the lesson presentations because they could not be excluded from the teaching and learning activities. None of their work was used during the reflection sessions as a means of data generating process, and none of them were referred to by the teachers in the reflection or planning sessions.

4.11.3. Participants' privacy

Further, to ensure privacy and confidentiality of the school, participants and all concerned parties; the name of the school and the names of the participants are kept anonymous and pseudonyms are used. I am aware that I cannot guarantee the utmost privacy and confidentiality in this research as the principal and other teachers in the school know who I am conducting my research with.

4.11.4. Respect and dignity

The rights of the participants were addressed and respected in this study. Their welfare, anonymity and privacy were protected. During the signing of the informed consent letters, I reminded the participants that their participation in the study was voluntary and thus they had the right to withdraw from it at any time. I was also mindful and respectful of the schedule of the participants and ensured that the research activities were done at convenient places (lessons were conducted in the classroom, reflection session and interviews were conducted in an office) and times. The participants were informed that the interviews would be audio-recorded and the lesson presentations video-recorded. I also highlighted that I would not share the information from this study with third parties without their permission.

4.12. CONCLUSION

In this chapter I described the research design and methodological orientations used in this study. Furthermore, the chapter outlined the research goals and questions of the study. The research site, research participants, sampling and positionality are further discussed in this

chapter. I elucidated how the data was gathered and analysed. The subject of validity and trustworthiness concerns were discussed and ethical concerns were reflected and discussed.

In the next chapter, I present, analyse and discuss the data generated from the pre-interviews, observation and reflection schedules, and post-interviews.

CHAPTER FIVE: DATA PRESENTATION

5.1. INTRODUCTION

This chapter discusses the data from the initial interview, three lessons linked to the LS and the post-interview with the teachers.

I begin this chapter with the presentation of teachers' profiles, that is their gender, teaching experience, qualifications and age group. The reason for this is to provide insight into the participants in my research.

As noted in Chapter 4, the two teachers participating in this study were interviewed individually for both the initial and post-interviews. These were audio-recorded with the teachers' permission. The names used in this thesis are pseudonyms. Participants were named Teacher A, Teacher B and Teacher R in the initial interview, observation schedule and post-interview.

5.2. THE RESEARCH PARTICIPANTS

The profiles of each of the teachers are listed in Table 5.1.

Table 5. 1: Teacher Profiles

Teacher's Name	Gender	Age group	Experience in Junior Primary	Years of experience in Grade 2	Teaching Qualification
Teacher A	Female	28-30	4	3	Diploma in JP
Teacher B	Female	28-30	6	4	Diploma in JP
Teacher R	Female	34-38	12	3	BEd (Honours)

5.3. TEACHERS' KNOWLEDGE AND USE OF DIFFERENTIATED INSTRUCTION

I categorised the data from the initial interview according to the questions asked (Appendix 7). The categories were teachers' understanding of the term DI and the implementation of DI in their classrooms.

5.3.1. Teachers' understanding of the term DI

The teachers who took part in this study tried to offer explanations of DI from different standpoints and the context in which they are teaching. Both participants understand DI as a teaching method used to cater to all the learners' learning needs. Teacher A maintained that DI is *"a teaching approach whereby a teacher includes all the learners in the lesson to cater for all their learning needs, looking at their interests and their preferred ways of learning"*. Teacher B explained that DI is a *"teaching approach whereby the teacher uses different strategies or teaching methods to cater for all learners' learning needs in class regardless of their learning abilities"*. While both teachers provided insight into their understanding of DI, Teacher B mentioned that *"DI is part of the Inclusive Education Policy"*. She further explained that *"this style or approach improves the performance of our learners in a way because all learners get to be included and benefit from the lesson"*.

5.3.2. Teachers' implementation of DI

Even though the research participants gave their views on what DI is, when asked if they implement DI in their classrooms during reading comprehension lessons, their responses have shown that they partially implement some DI aspects in their lessons. Their responses suggest their use of DI is limited to differentiating the levels of questions and activities. Teacher A's response suggests that she differentiates the content in her lesson. In her words, she explained, *"I differentiate the activities that I give to the learners. We can have the same story for all the learners in the class but the activities I will use to examine the learners, it will be differ depending on interests and their capabilities"*. Teacher B's explanation of how she implements DI when teaching reading comprehension implies that she focuses on the content, process and product in implementing DI. Teacher B responded that *"I firstly group learners into different groups, mix learners according to their levels of abilities and*

understanding. In this regard, I am relation to Bloom's Taxonomy whereby my questioning will be at different levels of the learners' understandings".

From the teachers' explanations of the lessons, they have taught using DI, Teacher A differentiated the content and product, while Teacher B differentiated the content and process.

Teacher A mentioned that she:

Used differentiated instruction ... in Mathematics lesson whereby the topic was doubling. I gave multiples ways on how learners can double numbers to get the correct answers. For example, by multiply a given number by two or adding the same number as the given number. When I gave the activity, I instructed each learner to answer depending on their preferred method that they think is easier for them to get the correct answer either by multiplying the number by two or adding the very same number as the given number.

The above explanation from Teacher A indicates that this teacher differentiates content and partially process. For example, her response has shown that she gives the learners the choice to select the methods they prefer to use when solving problems.

Teacher B elucidated:

In Environmental Studies, where I was teaching on the types of transport, I had to use pictures. We went outside to see the types of transport in our surrounding. Thereafter, we returned to class for a short video for learners who learn best when visualising pictures to learn. I gave activity with questions on different intervals.

The above explanations from the teachers indicate that they differentiate content and process in their classrooms. For example, Teacher B is differentiating her lesson because she is considering multiple ways to accommodate all the learners in her classroom. Teacher A's comment suggests that she differentiates the process by providing the learners with different strategies that they could use to calculate the product of a multiplication sum.

In this section, I presented the data generated from the initial interview. The initial interview aimed to assist me to answer the following research question of my study: *What are the Grade 2 teachers' understandings of Differentiated Instruction?* In the next section, I present the data from the lesson observation and reflection schedules.

5.4. PRESENTATION OF DATA FROM THE OBSERVATION AND REFLECTION SCHEDULES

As evident in Chapter 4, this action research project used LS to support the Grade 2 teachers in implementing DI to develop learners' reading comprehension in English Second Language lessons. The intervention consisted of three lessons taught over three days. The post-lesson reflections informed the planning of the next lesson. The first lesson for the LS served as a baseline to ascertain the learners' reading comprehension competence. As such, the lesson was not differentiated. During this research, my co-research participants and I planned, taught, observed and reflected on the three lessons at different time intervals. Each of us had an opportunity to teach one lesson while the others observed. Together we reflected on each of the lessons taught. Cognisant of the shortcomings in the previous lesson, we planned the subsequent lessons.

5.4.1. Summaries of the lessons

In this section, I provide a summary of all three lessons as implemented in the classroom. The summaries include the teachers' and learners' actions, activities and texts used in each of the stages of the LS process. The following are the learning and basic competency of all the three lessons from the MoEAC (2015) English Second Language syllabus.

Learning Objectives (Refer to syllabus): Learners will read words and phrases aloud with understanding.

Basic competencies (Refer to syllabus): "Learners should be able to show understanding of texts by correctly answering simple and higher order questions" (MoEAC, 2015 P.15).

5.4.2. Lesson One

The first lesson was taught by Teacher R.

Teacher R gave each learner a comprehension text. The comprehension text used in this lesson was titled 'David's story' (Appendix 8).

She introduced the lesson to the class by asking the learners to read silently through the text and elicit unfamiliar words. The learners read through the text and identified the following words: mosses, beach, stocking, waded, seaweeds, gathered and shore. Teacher R wrote all the unfamiliar words that the learners had identified on the chalkboard. She asked the learners to read the list of words. The learners volunteered

one by one to read the words aloud. Teacher R instructed the learners to read the words listed on the board with her. She helped the learners to read the most difficult words. The learners were asked if anyone knew the meaning of any of the words listed on the board. None of the learners volunteered to explain any of the words. Teacher R gave the meanings of words orally to the learners. The learners listened as each word was read and explained by Teacher R.

The teacher asked the learners to read the title of the story. The title of the story is 'David's story' (Appendix 8). The learners read the title of the story together. The teacher asked two of the learners to volunteer and read the text to the class. The two volunteers read the text to the class one after the other.

The learners were given a worksheet with a comprehension activity to complete individually. They were required to read the same text individually and answer a set of comprehension questions. The learners read the text individually and answered the comprehension questions on the worksheet. The purpose of this activity was to assess the learners' reading comprehension competencies. Once the learners had completed the comprehension, the teacher collected the learners' work, discussed the comprehension questions with them and gave them the answers to the comprehension questions (Appendix 9).

After this lesson, we realised that the text we gave the learners was too complicated and far removed from their experiences. We thus decided to use a simpler text in the second lesson, that is, one where the context was more familiar to the learners.

5.4.3. Lesson Two

Lesson 2 was taught by Teacher A. In this lesson the learners all read the same story, but the questions given to the learners to answer were at different levels.

The comprehension text used in this lesson was titled 'The new mobile' (Appendix 10).

Teacher A instructed the learners to sound the alphabetical letters A-Z phonetically in unison. The learners sounded the letters in unison as instructed by the teacher.

Teacher A gave each learner the text to read. She told them to elicit difficult words from the text. After reading the text, the learners identified the unfamiliar words, which they wrote on the chalkboard. The words that the learners identified were unwilling, complicated, features, co-worker, fiftieth, messages and husband. The teacher asked if there are learners who are familiar with any of the listed words. She instructed those familiar with some of the words to take the 'pointing ruler' and read the word they were familiar with aloud to the rest of the class. The learners who were familiar with some of the words raised their hands, approached the board when invited, and read the words aloud to the class. After that, Teacher A read all

the words that the learners had identified. As she read, she emphasised the letter sounds for each word. The learners listened attentively as the teacher emphasised the sound of each letter.

Teacher A walked from table to table and asked each learner to read the story's title, 'The new mobile'. The learners read the title of the text in unison to their teacher. The teacher said the title of the text and instructed the learners to read the text silently. She then asked the learners to briefly tell her what the text was about. Teacher A commented on the learners' verbal descriptions of the text and asked questions and to ensure they understood the text.

Teacher A gave the learners different comprehension questions at two different levels (knowledge and evaluation levels) (Appendix 11). She then read the questions to the learners before the learners worked on the comprehension activity individually. The learners wrote the answers to the comprehension questions on the worksheet.

Once the learners had completed the comprehension activity, Teacher A gave the learners feedback by going through the answers with them.

She then gave the learners a different text with comprehension questions for homework. The story was titled 'Animals' (Appendix 12). Teacher A requested that the learners bring their homework to class the next day.

5.4.4. Lesson Three

The third lesson was taught by Teacher B. In this lesson two different comprehension texts were used.

The comprehension texts used in this lesson were titled 'Special visitor' and 'Lost in the bush' (Appendix 13).

Teacher B walked around the tables and checked how each learner read and answered the homework on reading comprehension from the previous lesson. This was a different text given to them from the previous lesson. She then gave the learners quick feedback on the reading comprehension activity given to them for homework.

For the third lesson, the class was divided into two groups depending on the learners' reading comprehension level (as determined in the first and second lessons). Teacher B explained to the learners that they would work on different texts. She gave the text titled 'Special visitor' to the learners who were 'struggling' with reading comprehension and 'Lost in the bush' to the learners deemed more 'competent' readers. She asked the learners to scan through their stories and identify the unfamiliar words.

Teacher B listed all the unfamiliar words that the learners had identified from each of the texts on the chalkboard. These were, barks, shelter, cave, stream and shiver (from the text titled 'Lost in the bush') famous and tidied (from the text titled 'Special visitor'). The teacher read the words to the class and gave the meanings of the unfamiliar words. She started with the two words identified from the story 'Special visitor' and ended by reading the words identified from the text titled 'Lost in the bush'. Most of the words identified by the learners were written on flash cards as the teachers assumed which words would not be familiar to the learners.

Teacher B displayed different pictures from each of the texts (Appendix 14) and asked the learners to put them in the correct sequence. She started with the text titled 'Special visitor' before moving to the story, 'Lost in the bush'. While the learners who were reading 'Special Visitor' were sequencing the pictures, those reading 'Lost in the bush' read their text silently. Teacher B swapped the activity so that those reading 'Lost in the bush' silently had their turn ordering the pictures related to their story. Teacher B applauded the learners for arranging the pictures in the correct order and she started to explain the events of each story using the pictures arranged by the learners. The learners listened as the teacher narrated the stories one at a time using the pictures and highlighting the series of events in the texts. She started with the text titled 'Special visitor' and ended her discussions with 'Lost in the bush'. She had one group listening to their text while she was narrating the story given to them while the other group were reading their story silently. She then did the same with the other group.

Each learner received one set of comprehension questions based on the text they read (Appendix 15). The learners answered the questions individually on a worksheet.

Teacher B concluded the lesson by giving feedback on the comprehension questions for both texts with the learners. She started with 'Special visitor' and then proceeded to 'Lost in the bush'.

Having provided a quick synopsis of the three lessons showing how we implemented DI, and how our use of DI in the classroom developed, I now focus on the themes that emerged during our LS reflection and planning sessions.

5.5. DEVELOPMENT OF THEMES

In this section, I present the themes generated from the three lessons. Data generated from observation schedules were categorised using emic coding. The themes emerged from the discussions held by the teachers during the reflection sessions. Concerns raised in the

reflection session included: (1) **language**; (2) **time**; (3) **teaching aids**; (4) **assessment/activities** (5) **questioning** (6) **learners' participation/engagement**; (7) **learners' learning pace and readiness**; (8) **group/pair work**; (9) **teachers' reflection**; and (10) **differentiation of process, content and product**.

5.5.1. Language

Five codes related to language emerged from the data. These are the complexity of the text, story context, vocabulary, choice of the text and poor reading skill.

5.5.2. Complexity of the language

Castle et al. (2018) stated that reading comprehension depends on the learners' reading, language complexity, the genre of the text and the reason for reading (e.g., skimming a text, studying or reading for pleasure).

The first lesson served as a baseline for this intervention. The learners found the text difficult to comprehend. After the first lesson, TAL1 remarked that the language in the text was a "*high barrier to communication*". TBL1 concurred and remarked that "*the text was too difficult for the learners to comprehend*". She further suggested that the "*language used was too advanced*".

Having realised that the language used in the first text was too difficult for the learners, we focused our attention on finding a comprehension text from the Platinum English Second Language book for Grade 2 that was seemingly more appropriate to the learners' language competence (Appendix 10).

In the second lesson, TRL2 revealed that the text's language was "*appropriate for the learners*". TAL3 expressed agreement, but in relation to the third lesson. She commented that "*simple language was used*". Over the three lessons, we developed a greater awareness of the learners' English knowledge, which influenced our choice of comprehension text.

5.5.3. Story Context

We chose the first reading comprehension text during the first lesson planning session without paying close attention to the learners' home background and the classroom

environment. As such, the learners found it hard to comprehend the first text. The context of the story was unfamiliar to the learners. The story was about a family that went to the beach, which is contrary to the learners' home background and the learning environment because most of these learners live in the rural areas and do not know what a 'beach' is. The learners could not relate because the text did not reflect their real-life experiences. Subsequently, in the first lesson, TAL1 indicated that *"the article or story was not inclusive because it is based on 'modern life' and the assessed learners that are living in rural areas, most of them are not exposed to the things mentioned in the story"*. TBL1 agreed and suggested that there is a need to *"choose context-based story"*.

After the first lesson, we tried to find a story that the learners could relate to. The text we used for this second lesson was titled 'The new mobile' (Appendix 10). It is about the new cell phone. Most of the learners are familiar with cell phones. After the second lesson, TAL2 claimed that the *"text was context-based"*. She further emphasised that the *"language was well simplified"*, making it more suited to the learners' language competence. TBL2 maintained that the story's context was well-considered, and she remarked that *"the story used was enjoyable and learners were familiar with it"*.

5.5.4. Vocabulary

During the first lesson, the learners struggled with the vocabulary used in the text we chose. This could also have accounted for the difficulty the learners experienced with the text. After the first lesson observation, we indicated that the vocabulary demands were seemingly too difficult for the learners. TRL1 commented that the *"vocabulary was too advanced for the learners"*. TAL1 echoed this sentiment and said that Teacher R did not explain the vocabulary to the learners. She suggested that *"many terms used in the story are not clear to the learners, and they were supposed to explain them"*.

As we observed and reflected on the first lesson, we agreed to start paying attention to the vocabulary in the text that we chose for lesson two. This was very useful because it appeared to make it easier for the learners to comprehend the text. The learners were given the opportunity to identify and read the new words, thus enriching their reading skills and pronunciation. Based on the reflection of the second and third lessons, TRL3 claimed that the learners read the unfamiliar words, and this assisted the learners in understanding the text.

She stated, *“since the meanings of difficult and new words were given, it gave learners a good sense of comprehending the text”*. TAL2 agreed that the unfamiliar words were *“difficult words [and] were read and explained. The teacher read the vocabulary with the learners and gave the meaning”*. In the light of vocabulary development for reading comprehension, Nelson and Van Meter (2007) and Acosta (2019) suggest that learners need to be exposed to new vocabulary as they learn to read because this will offer them an opportunity to develop their understanding of written texts. In support of that, Beck et al. (2008) and The National Reading Panel (2000) recommend that teachers should use direct instruction to develop learners’ vocabulary as this will assist them to comprehend the given reading text.

5.5.5. Choice of text

Regarding the choice of the text used for the first lesson, we did not consider the suitability thereof in terms of the learners’ levels of reading competence. As we reflected on the first lesson, TBL1 claimed that the learners' text could not address all the learners’ learning needs. She then suggested that the *“choice of the text needs to be at the level of the learners”*. TRL1 concurred, *“the story was not at the level of the learners; it was hard to comprehend”*. TRL1 and TBL2 both suggested that there should be more than one story to accommodate the different reading levels. TBL2 remarked that *“the teacher needs to use different stories”*.

As the LS sessions continued, during the reflection of the first and second lessons, we changed our choice of texts to differentiate and accommodate all the learners in the reading lesson. For example, in the third lesson, we had two different texts, one for the competent readers and a different one for learners who were still struggling to read in English. We differentiated the texts according to context and level of vocabulary.

In the last lesson, we used two different texts and two different sets of comprehension questions depending on the learners’ competence to comprehend the texts. The aim was to accommodate all the learners. This is clarified by Broach (2012), who explains DI as a teaching strategy that enables teachers to adjust their teaching to address the strengths and needs of the diverse learners in their classrooms. They maintained that DI permits all learners to access the same curriculum by providing entry points, learning tasks and outcomes tailored to their different learning needs. At the end of the lesson, TBL3 commented that the texts used were appropriate for the learners in terms of their learning needs and remarked that *“the use of*

different stories helped the learners understand the stories depending on their levels of readiness”.

5.5.6. Learners with poor reading skills

During our planning sessions, we agreed that the learners who were not yet competent readers made the implementation of DI difficult in all three lessons challenging. We further concluded that, even though we tried to support all the learners, the learners who have ‘reading challenges’ found it hard to comprehend the texts. As much as we differentiated the texts for lessons 2 and 3, these learners could not read and comprehend the texts. In all the three lesson reflections, we agreed that the level of the learners’ reading was the constraining factor for implementing DI in all three lessons. TAL2 noted and concluded that *“some learners cannot read so it was not easy for them to understand the story”*. TRL2 added that *“learners who have general difficulties in reading made it hard for the successful implementation of DI”*.

5.5.7. Time

The teachers’ responses have revealed that time was one of the major constraining factors for implementing DI in all three lessons. TAL3 remarked that *“it takes time”*. In the same vein, TRL3 agreed that time was a challenge during the implementation of DI. She stated that *“it was time consuming”*. The teachers suggested that the effective implementation of DI required more time to explain the texts and read through different comprehension questions. We agreed and suggested that it could be fruitful during the observation and reflection sessions if we had enough time to implement DI. TAL3 suggested extending time by noting that *“maybe the teacher needs to extend time for successful implementation”*. TRL3 agreed stating that *“differentiated instruction needs to be implemented in lessons when there is enough time”*. Tomlinson et al. (1998) conducted a study to ascertain how teachers respond to academic diversity by means of differentiating their instruction. The research findings indicated that although some of the educators who employed diverse instructional policies have managed to partly develop more flexible classrooms, most educators voiced frustration about stressed to deal with learner variance because of insufficient time.

5.5.8. Teaching aids

The use of different teaching aids is important in the implementation of DI. Tomlinson and Imbeau (2010) maintain that “the teacher can demonstrate using teaching aids to illustrate the concepts as a first step in teaching the concept or learning goal” (p. 56). During the DI implementation, TRL1 was concerned that the learners’ learning was not sufficiently supported as no teaching aids were used. As we progressed to the next two lessons, we agreed to develop teaching aids to support the learners’ comprehension of the texts (Appendix 16). We developed flashcards based on the words that we assumed the learners would have difficulty with. After reflecting on the second lesson, TAL3 agreed and remarked that “*well-designed learning materials ... supported learning*” After using the teaching aids (flashcards and sequencing cards), we also agreed that the sequencing pictures supported the learners in making meaning of the texts. TRL3 commented that the “*teaching aids helped the learners.*” TAL3 echoed this statement and remarked that “*learning aids have assisted the reading comprehension*”.

5.5.9. Assessment activities

In the second reflection session, we agreed that we needed to design appropriate activities to assess the learners’ reading comprehension. We also agreed to have different activities to take the learners through different steps and prepare them for the comprehension questions. For example, TRL1 noted that “*not enough pre-activity was given to prepare the learners for the post-stage activities*”. Based on the literature reviewed, Anderson (2007) emphasised that a mix of formative and summative assessment types should be given to the learners to assess whether the learning outcomes have been achieved. It allows the teacher to determine the levels of learners’ understanding.

As much as the teachers’ observations and reflection sessions continued, we agreed to increase the number of activities in the third lesson to assess the learners’ reading competence. For example, we had two reading texts and two different comprehension activities. Mills et al. (2014) argued that DI could be seen when the teacher divides the class into smaller groups, according to the learners’ capabilities, giving them individually modified curriculum materials. We differentiated the assessment in terms of complexity, readiness and the learners’ pace to suit their learning needs (Appendices). As we progressed with the LS

cycles. TRL3 stated that *“assessment was well set, and learners were taken through different steps to get prepared for the actual final stage assessment”*. We also concluded that the activities were suitable and enough for the learners in the last two lessons. TAL2 remarked that the *“learners were given plenty of activities”* to support them in answering the questions.

Additionally, after the last two lessons, we agreed that the assessment was valid and relevant because it was related to the basic competencies in all the lessons and assessment *“should be able to show understanding of texts by correctly answering lower- and higher-order questions”* (MoEAC, 2015, p.15). TRL3 claimed and confirmed that *“learning activities and assessments were up to standard and they matched basic competency and valid because it was based on the story”*. TAL2 echoed and concluded that *“the basic competency was well achieved because the assessment showed improvement from the reflection of the previous lesson”*.

According to the reviewed literature, assessment is vital because wide-ranging demonstrations of learning permit the teacher to decide which learners have mastered the material and those who may need more time and continuous learning support (Tomlinson, 1999). For that reason, we tried to use the assessment to inform the necessary decisions that we needed to assist and accommodate the learners.

5.5.10. Questioning

During our reflections after the first LS cycle, we agreed that the questions were too complicated for the learners and were not well designed (Appendix 9). TBL1 expressed concern at the level of questions regarding the differentiation of the content in her comment. She erroneously used the term product instead of content. She stated that *“the product has not supported the differentiation based on the levels of questioning; some learners were left out as only a few were able to answer the questions”*. In addition to that, TRL1 noted the *“questions were not well structured.”* The questions relating to the first story, ‘David story’, were mainly questions that required the learners to remember what they had read in the story or locate the answer in the text. In other words, they were all knowledge questions:

- What is the title of the story? (knowledge question)
- Where did father, Charles and Lucy go? (knowledge question)

- What did they take before they went? (knowledge question)
- What did they see at the beach? (knowledge question)
- What happened to Lucy? (knowledge question)

Such questions are lower-order questions that are at Level 1 of Bloom's Taxonomy. TRL1 concurred and remarked that the *"levels of questioning hindered the learners to comprehend the text"*. Drawing on this comment, it appears that this lesson did not accommodate all the learners because competent learners needed challenging comprehension questions. As noted in Chapter 2, English Second Language learners should be given both lower-order and higher-order questions depending on their levels of competence.

During our reflection sessions for lessons one and two, we started setting questions for different levels of reading competence. We also agreed to design and give the learners differentiated questions based on Bloom's Taxonomy (1956). In lessons two and three, questions were set at different levels to cater to individual learners' needs. These lessons included both the 'competent readers' and learners who are 'struggling' to comprehend the text. The questions used for the second reading comprehension lesson are listed below. These questions were differentiated based on Bloom's Taxonomy's (1956).

- What is the title of the story? (knowledge question)
- What was Merry given on her birthday? (knowledge question)
- How old is Merry? (knowledge question)
- What was Merry's problem with regards her iPhone? (knowledge question)
- Did the instruction help her? (knowledge question)
- Do you think Merry will ask for help? Explain your answer. (evaluation question)

These questions were structured in a way to stimulate the learners' different levels of thinking. For example, the structure of questions could allow the learners to answer the level 1 questions, that is, the knowledge questions, before completing the single higher-order evaluative question.

Kanzo (2011) suggested that teachers should set questions at different understanding levels of understanding at different and cognitive processes. He further noted that there must be a place for lower-order questions that teach basic factual material. Furthermore, Kanzo (2011) suggests teachers should set the questions to test reading comprehension based on Bloom's Taxonomy (1956). For that reason, we set questions depending on the learners' different levels of understanding and interpreting texts. After lesson 2, TAL2 maintained that *"different questions were given and Bloom's Taxonomy levels of questioning were used"*. TRL2 commented that *"different questions were set to accommodate all the learners and levels of questioning was utilised during the setting of activities and it catered for all the learners learning needs"*.

During the third LS cycle reflections, the teachers' comments shifted in terms of the texts and comprehension activities. During the last lesson, the two groups of learners received different questions based on their reading and comprehension levels. We differentiated the questions following Bloom's Taxonomy (1956). The learners who 'struggled' responded to knowledge questions, that is, level 1 questions (Bloom, 1956).

The following questions were for learners who find it hard to comprehend the texts.

- What is the title of the story? (knowledge question)
- Who visited the school? (knowledge question)
- From which region is Ms Simasiku? (knowledge question)
- Where did Ms Simasiku grow up? (knowledge question)
- Which song did the learners sing? (knowledge question)
- What does Ms Simasiku do for a living? (knowledge question)
- What do you want to be when you grow up and why? (knowledge question)

The 'competent readers' were also given knowledge questions but were also required to respond to an application question (levels on Bloom's taxonomy). These were:

- What is the title of the story? (knowledge question)

- What were Mpho and Palesa doing in the bush? (knowledge question)
- What is the name of Mpho and Palesa's dog? (knowledge question)
- Where did Mpho and Palesa sleep? (knowledge question)
- What happened to Mpho and Palesa? (knowledge question)
- Who came to look for Mpho and Palesa in the bush? (knowledge question)
- Identify three proper nouns from the story. (knowledge question)
- If you were Mpho or Palesa what would you have done? (application question)

5.5.11. Learners' participation/engagement

Tomlinson and Imbeau (2010) stated that their motivation to learn increases when learners are interested in something. They posit that learners interested in their work are more likely to achieve the desired learning outcomes. As we observed and reflected during the first LS cycle, we agreed to use the outcomes of the baseline (lesson 1) to ascertain the learners' readiness before the introduction of DI, as this could assist us to engage all the learners in the lesson. TAL1 reflected on the first lesson and said that *"some of the learners participated in the class discussion although there are some learners who did not participate"*. TBL1 echoed this statement and remarked that learners were *"partially engaged as most learners sat and daydreamed while the teacher asked questions"*. She further noted that *"only a few learners were responding, some learners were left out as only a few were able to answer the questions, most did not understand"*.

According to Tomlinson and Imbeau (2010), taking learner readiness into account means that the teachers should make the work simpler or more complex depending on where the learners are, at any given point, in their academic growth and provide the learners with the necessary learning support. As noted earlier in this chapter, most of the learners could not read the text, explain the vocabulary and answer the comprehension questions. This significantly limited their chance to engage and participate in the lesson. Furthermore, the learners did not participate in the lesson. To remedy the lack of comprehension (due to the difficulty of the reading task) of the learners during the first lesson, the teachers decided to

read the questions to the learners and explain each question clearly in lessons 2 and 3. The teachers developed pre-activities, that is flashcards (lesson 2) and sequencing cards (lesson 3), to support the learners in making sense of the lessons, and different types of questions to accommodate all the learners in the class.

The goal of differentiating according to learners' interests is to help learners engage with new information (Tomlinson & Imbeau, 2010). TBL1 suggested that they need to *"include all the learners in the lesson and invite learners for participation"*. As the LS continued for lessons two and three, we agreed to differentiate both the texts and activities to accommodate and invite all the learners in all the activities. The learners were actively engaged in all the learning activities during the last two lessons. All three teachers remarked that *"the learners were fully and actively engaged in the [second] lesson"*. We made a shift by differentiating content (the comprehension questions) to accommodate all the learners.

The learners' interests are generally connected to their strengths, cultural context, personal experiences, questions, or sense of need (Tomlinson & Imbeau, 2010). After reading the story's title, *The New Mobile*, it appeared that the learners' attention and interests were captured because the story was about a cell phone. As the text used for the second lesson based on a context with which they were familiar, it appealed to them. After the reflections of lessons two and three, the teachers noted and reflected that the learners' participation improved. TBL2 confirmed this by stating that the *"learners enjoyed the lesson"*. Additionally, TBL3 indicated that *"learners were included in the lesson, maximum participation was observed"*.

5.5.12. Learners' learning pace and readiness

Pace is a subjective judgment, connected with how it feels for the learner to go through the sequence of activities in a class (Tomlinson & Imbeau, 2010). TAL1 remarked that *"I find differentiated instruction very useful when teaching reading comprehension because different learners have different levels and ways of understanding. A classroom consists of all learners, fast and slow learners and each and every one of them learn at their own pace."* Since the first lesson was a baseline for the LS and DI intervention, our planning did not consider the pace at which the learners learn nor the speed at which the learners can read and comprehend the texts. Moreover, we did not think about the learners' readiness with regards to the text and

comprehension questions we set for them. Tomlinson and Imbeau (2010) refer to readiness as “the learners’ current proximity to specified knowledge, understanding, and skills” (p. 16). As we observed and reflected on the lesson in cycle 1 of the LS, we agreed that there was a need to consider the individual learner’s learning pace and readiness.

After the first LS cycle, we concluded that the lesson was not successful because the LS cycle was not inclusive as it was not aimed to be differentiated to suit the learning pace and readiness of the learners. MoEAC (2015) highlighted that learning pace is one thing to consider when differentiating learning activities. TBL1 echoed and noted that the *“learners’ paces were not considered”*. She elaborated, suggesting that *“learning preferences and pace need to be considered”*. TAL1 highlighted why it is imperative to consider the learners’ learning paces and readiness. She commented that *“a classroom consists of all learners, fast and slow learners and every one of them learn at their own pace”*.

Even though all the teachers recognised and acknowledged that DI is important, it appeared that the implementation was a challenge to them. TAL2 agreed suggesting that, *“maybe the learners need to be given stories depending on their levels of readiness in terms of reading comprehension”*.

As the intervention progressed, we agreed to consider the pace at which individual learners learn and their readiness during our planning. To do this, we decided to plan differentiated activities. The learners’ readiness was considered in the LS cycle two and three reading comprehension activities. Both TBL2 and TRL2 emphasised that the activities in the second lesson were at the levels and pace of the learners. The teachers suggested that the use of different texts and questions related to the learners’ reading competence led to the seemingly more successful implementation of the lesson. TBL2 commented that the *“pace of the learners, readiness and clear assessment, product, content and process were differentiated, and it made the lesson to be successful”*. TRL2 agreed the *“activities were at learners’ level and learning pace thus, it made it possible for the learning goal to be achieved”*.

The careful consideration of the learners’ pace and reading competence continued into the 3rd lesson. In her reflection on the lesson, TBL3 commented that the learning was *“well supported because the learners were given multiple stories depending on their levels of readiness and [their] learning paces”*. TBL3 concurred that the use of different stories

promoted differentiation and that the process of *“differentiation has supported the learning because the pace and readiness [of the learners] were well considered”*. TRL3 agreed. She mentioned that *“the stories used were well differentiated to match the reading paces of all the learners and different texts were used to cater for different learners at different learning paces and different readiness of comprehending the text”*.

5.5.13. Group/pair work

Reflecting on the second lesson, TBL2 remarked that the *“Covid-19 situation hindered successful implementation of DI, because we could not put learners to work in groups”*. For her, allowing the learners to work in collaborative groups was necessary in a classroom that foregrounded DI. Tomlinson (2001) supports this view and attests to the ‘fact’ that teaching should be delivered in several approaches such as whole groups, small groups, and whole class teaching and individual work were the formats used across all three lessons. There was no opportunity for collaborative learning. As we reflected, TBL2 raised the concern of group work as one of the hindering factors that made the implementation of DI difficult. In her comment, she remarked that *“group work is needed [for DI] but it is not possible because of Covid -19”*.

5.5.14. Teachers’ reflection

During this intervention, we reflected on each lesson to inform the planning of the next lesson. We agreed that our reflections and discussions were useful throughout the reflections because we could identify areas that needed improvement and address any shortcomings in the next lesson. TBL2 stated that *“reflection of the lesson which was taught previously, and teachers’ discussion was helpful because the weakness and mistakes from the other lesson helped us to improve for this lesson”*. In the same vein, TRL2 concurred and mentioned that *“the reflection of the previous lesson it helped us [teachers] to identify weaknesses and address them in this lesson”*. TAL3 added that *“teachers’ reflections were useful because we managed to maintain our strengths and improve the weaknesses”*. She further indicated that *“the support from my colleagues helped with the successful implementation of DI”*. In addition to that, TBL3 agreed and revealed that, *“weakness identified from the last reading lesson helped the teachers to improve the lesson and that teachers’ discussion was helpful for the*

successful implementation of DI". TRL3 concluded and highlighted that *"reflection of the previous lesson was useful"*.

5.5.15. Differentiation of DI aspects

Initially, the content, process and product were not addressed in the first lesson because the first lesson served as a baseline for the implementation of DI. In the planning session of lesson two, we agreed that there was a need to differentiate content, process and product. TBL1 added *"there is a need of differentiating the content, process and product; this will help the teacher to achieve the learning goal of the lesson"*. TRL1 concluded that *"the teacher did not pay attention to the aspects of Differentiated Instruction. In other words, the lesson was not well differentiated"*.

In the above section, I presented the data generated from the observation schedules. Data generated from the observation schedules were presented under the following themes, which emerged from the reflections: (1) **language** (complexity of the text/story, story context, vocabulary, choice of text, reading); (2) **time**; (3) **teaching aids**; (4) **assessment**; (5) **questioning**; (6) **learners' participation/engagement**; (7) **learners' learning pace and readiness**; (8) **group/pair work**; (9) **teachers' reflection**; and (10) **differentiation of process, content and product**.

In the next section, I will present and discuss the data generated from the post-interview.

5.6. DATA FROM POST-INTERVIEW

The data generated from the post-interview (Appendix 17) was categorised according to the questions asked. The following categories were used: teachers' understanding of DI, the effectiveness of DI, enabling and constraining factors when using DI, teachers' understanding of LS, effectiveness of LS, enabling and constraining factors of LS. The data generated from the post-interview are presented in this unit under each of the themes.

5.6.1. Teachers' understanding of DI

At the end of the intervention, the teachers again gave their views on their understanding of DI. Teacher A and Teacher B expressed a common understanding of DI as an approach to teaching that teachers employ to respond to different learners' needs. Teacher A explained that *"DI is a teaching strategy that the teachers use to address and cater for all the learners' learning needs"*. Likewise, Teacher B explained that *"DI is method to teaching that includes many ways that the teacher can use to accommodate all the learners in the classroom regardless of their abilities"*.

5.6.2. Effectiveness of DI

The teachers maintained that the implementation of DI was effective for the teaching of reading comprehension. The teachers' answers revealed that some actions helped the successful implementation of DI during these literacy lessons. Teacher A claimed that *"DI is helped because learners' understanding was reflected in the activities and their learning needs were identified and addressed"*. In addition, Teacher B suggested that DI was partially helpful for the development of reading comprehension. In her response, she stressed that *"DI was somehow helpful because all the mistakes were picked (up) and the teachers discussed them and corrected them"*.

5.6.3. Enabling and constraining factors when using DI

During the implementation of DI, the teachers identified several constraining factors that hindered the successful implementation of DI in developing the learners' reading comprehension. Both teachers argued that the limited time available and the 'struggling learners' made it hard to implement DI in all three lessons effectively. Regarding the observation schedules, the same aspect was also highlighted in the teachers' responses to the challenges faced during DI implementation. Teacher A explained that *"the time and learners who were struggling with reading made it hard for the implementation of DI"*. Similarly, Teacher B stated that *"the challenges that I picked were time management and the learners who cannot read even simple words made the lesson complicated"*.

The teachers also revealed the enabling factors that made the implementation of DI successful during the lessons. The teachers' responses indicated that the lesson reflections,

vocabulary and simple language are some aspects that assisted the fruitful implementation of DI. Teacher A explained that *“lesson reflections and the last two lessons assisted in the use of DI in reading comprehension”*. Besides that, Teacher B highlighted that, *“vocabulary and simple language which were used and the mistakes which were identified by the teachers and attended too, made the reading comprehension lesson very successful”*.

5.6.4. Teachers’ understanding of LS

Regarding the question on the teachers’ understanding of LS, both teachers who took part in this interview had a shared understanding of the nature of LS. Teacher A explained that *“Lesson Study is a process whereby the teachers plan together, teach, observe and focus on that one lesson to try to improve learners’ performance or teaching and learning”*. Similarly, Teacher B explained that *“lesson study is when a group of teachers come together, plan a lesson, teach it together, observe it and collect all the mistakes and make the correction by teaching it over again until the basic competence is achieved”*.

5.6.5. Effectiveness of LS

According to the teachers’ responses, they found the LS was successful in developing their practice in using DI to develop learners’ reading comprehension in English Second Language during this intervention. They claimed that LS is one of the practices for assisting the teachers in improving their instructional knowledge of DI. Teacher A remarked that *“it was a good practice because we supported each other”* while Teacher B stated that *“it was very interesting because I learned from my colleagues”*.

5.6.6. Enabling factors for LS

During this intervention, the teachers also mentioned factors that enabled LS to support the implementation of DI to develop the learners’ reading comprehension. The teachers explained that they gained insightful knowledge on how to teach reading comprehension through the LS approach. Teacher A made a statement that, *“what enabled the lessons were discussions, the discussions were helpful”*. She extended her statement by noting that, *“since my fellow teachers have massive experience, it made it possible to assist me to improve my way of teaching reading”*. Teacher B concurred stressing that, *“the good thing is that I learned from my colleagues ... I feel confident about teaching reading through DI after this exercise”*.

5.6.7. Constraining factors for LS

Despite the enabling factors mentioned above, there were also a number of constraining factors, misunderstandings of the DI and contradictions among the teachers who took part in this LS process. Teachers have shown that time spent on reflection was a constraining factor they said there were too many debates during the reflection sessions. At some points it was hard to compromise because the teachers have different views. Thus, it was a challenge. Teacher A remarked that *“it was time consuming and too many debates” [disagreements and discussions during the reflection sessions]*. Likewise, Teacher A commented that *“I found the discussions too long”*. According to the studies done using LS by Fernandez (2002) and Ogegbo et al. (2019) time was one of the constraining factors because it was difficult for the teachers to meet for planning and reflection sessions.

In the next section, I discuss the data that emerged from the study during the use of LS in supporting the Grade 2 teachers in implementing DI to develop the Grade 2 learners’ reading comprehension. Therefore, I will start this section by looking at the data in relation to the TOPA theory that underpinned my study.

5.7. ANALYSING MY DATA USING THE THEORY OF PRACTICE ARCHITECTURES

In this unit, I discuss and analyse the data drawing on the theoretical framework, that is, the ToPA. The ToPA was used as a lens to analyse and interpret my data. The specific project in my research was the use of LS to support teachers in implementing DI to develop learners’ reading comprehension.

The practice landscape or site of the practice was a Grade 2 classroom in a public school in the Endola Circuit, Ohangwena Regional Directorate of Education. This is a rural school on the border of Namibia and Angola. The school consists of classes ranging from Grades 0-9. There is a principal, 27 teachers and 3 institutional workers. The school has 750 learners and most of them are from poor backgrounds. Oshikwanyama is the mother tongue of most, if not all, the teachers and learners and is also the medium of instruction in the Junior Primary Phase. The lesson took place in the Grade 2 classroom. The class has 35 learners but not all the

learners had the opportunity to participate in the activities before completing the comprehension. All lessons were 40 minutes as per the timetable.

It is a well-furnished classroom with a chalkboard, tables, chairs, cupboard and display board. The tables and chairs are at the correct height for the learners. The space is not sufficient for the learners to move freely when carrying out group work activities. The classroom is well ventilated with windows and with light and it is conducive for learning. The walls have colourful learning aids, for example, sight words, alphabet/phonetic charts, weather chart, days of the week and the months of the year.

As noted in Chapter 3, Kemmis et al. (2014a) explained practice as a form of:

socially established cooperative human activity in which characteristic arrangements of actions and activities involving utterances and forms of understanding (*sayings*), modes of action (*doings*), and customs in which people relate to one another and the world (*relatings*) that 'hang together' in characteristic ways in distinctive 'projects' (p.27).

I explained in Chapter 3 that the framework provided by the ToPA attends to both the individual and the social aspects of practice. The theory describes practices as being made up of 'sayings', 'doings' and 'relatings', which, broadly speaking, relate to the language, actions and ways of relating in a practice. On the side of the social (Figure 3.2), Kemmis et al. (2014a) describe practice arrangements as the elements that anticipate, support and restrain practices, that is, the cultural-discursive, material-economic and social-political arrangements of the site in which the practice takes place.

As I began to analyse my data, I realised that identifying the 'sayings', 'doings' and 'relatings' was easier than identifying the arrangements that condition the practice of LS and the use of DI to support learners' reading comprehension. I also realised that the practice arrangements interact across the 'sayings', 'doings' and 'relatings'. For example, the material-economic resource of the Platinum textbook enabled and constrained, the learners understanding of the vocabulary in the text ('sayings') and the extent to which the learners relate to context of the text ('relatings'). For this analysis, I have identified the 'sayings', 'doings' and 'relatings' and considered how the different practice arrangements condition each of the elements of a practice.

5.7.1. Lesson One

Our 'sayings' revolved around words, such as, DI, LS and reading comprehension. This was influenced by the teachers' understanding of DI and LS which formed part of my Honours project with the teachers who participated in my Honours research project. Our understanding of DI was also informed by the MoEAC inclusion policy (2013). The requirements for reading comprehension in a second language were conditioned by the syllabus.

Together, we decided that our first lesson would be a baseline assessment to determine the learners' level of reading comprehension. Our intention in the first lesson was not to split the class into two groups depending on the learners' level of competence in reading comprehension. A 'one-size-fits-all' approach was used as every child received the same reading and comprehension questions. The teacher focused on the words in the comprehension that the learners were not familiar with. The learners understanding of the 'sayings' of the practice, that is the words used in the comprehension, was constrained by various cultural-discourse arrangements, including their language competence and the fact that they were learning a language that is not their home language. During the reflection sessions, the teachers focused their discussions on the complexity of the language, the participation of the learners and their concern that the context of the story was unfamiliar to the learners.

The 'doings' of the practice included the LS process where the teachers were required to plan a lesson, teach and observe the lesson, and reflect on the lesson. The reflections of the lesson assisted the teachers in identifying the learners that were to be allocated to the two groups and to plan the next lesson. The 'doings' in the classroom entailed reading the story silently, eliciting unfamiliar words, reading and explaining the unfamiliar words, re-reading the story and answering the comprehension questions individually. The material-economic constraints that constrained the 'doings' of the practice included, for example, the textbook. The comprehension exercise was taken from the Platinum text for English as Second Language in Grade 2.

We worked collaboratively during the LS process. I was their 'senior' in the sense that I was their HoD, the researcher and more knowledgeable about LS and DI. The teachers were in

control of the class. Teacher-learner interaction was influenced by the socio-political arrangements, such as, the hierarchical relationship between the teachers and the learners, classroom rules and school code of conduct. The teacher asked the questions and told the learners what to do. There was no interaction between the learners. The Covid-19 protocols constrained the opportunity for learners to work together in small groups and interact with each other.

5.7.2. Lesson Two

During the debriefing session of Cycle 1, we planned our second lesson based on our discussions during the reflection session. We divided the learners into two groups depending on their performance in the first lesson. Our 'sayings' were informed by DI and reading comprehension. We chose a single text but decided to differentiate the questions based on Bloom's Taxonomy. The 'sayings' of the practice was constrained by various cultural-discourse arrangements. As with the first lesson, these included the language requirements of the syllabus and Platinum textbook. The learners were learning to read in English which is their second language. The words that the learners' identified in the text that were necessary for the learners to make sense of the text were difficult and impacted on the sense-making process.

The material-economic arrangements that enabled the 'doings' of the practice included the chalkboard, worksheets with the story and comprehension questions. There were insufficient textbooks, so the story had to be photocopied so that all the learners had their own copy.

The teacher used the teacher-centred approach. She asked the questions and the learners answered. No learners asked the teacher questions. In teacher-centred classrooms, compliance is honoured over creativity and inactive learners over enthusiastic learners (Freiberg, 1999). The school's code of conduct and classroom rules indicate how the learners should behave in their classroom and this arrangement enabled the 'relatings'. There was no interaction between the learners. The Covid-19 protocols constrained the opportunity for learners to work together in small groups and interact with each other.

5.7.3. Lesson Three

Our third lesson was informed by lesson two which was differentiated based on the outcomes of the reflection session of the second lesson. We discussed the previous lesson focusing on the specialised language of DI and reading comprehension, specifically Bloom's Taxonomy. We chose two texts, one for each group, and developed comprehension questions for each. Possible learners' understanding of the 'sayings' of the text and comprehension questions were identified by the teachers prior to the lesson. The choice and decision of the types of text and comprehension questions that each child got was constrained by the language which is not the same as the learners' home language. The 'doings' of the practice involved a number of activities, such as, silent reading to identify unfamiliar words, reading the text and explaining the comprehension questions for the learners. The material-economic arrangements that constrained the 'doings' of the practice included, insufficient textbooks.

The social-political arrangement that constrained 'relatings' of the practice included, lack of teacher-learner interaction, and protocols of Covid-19 hindered the opportunity for learners to work together in small groups and interact with each other.

5.7.4. Cultural-discursive arrangements

One of the major constraints related to the 'sayings' of the practice in this study was language. For example, the language of the text used in the first lesson was difficult for the learners. It constrained the learners from comprehending the text because the vocabulary was complex. The learners were learning a subject that is their second language making it challenging to comprehend the text.

In a very short period, a new discourse emerged as we started with the LS reflection sessions. As we interacted with others, our language about DI shaped and influenced what we were able to think and know during the reflection sessions. In other words, "it shaped our thoughts, ideas, beliefs, identities and the way we interacted with others" (Cole, 2019, p.7). This explanation of discourse is used as a way of explaining the cultural-discursive arrangements in my research. Our practice had been influenced by a discourse of teacher-centred education. Teacher-centred education is an approach to teaching where learning activities in the classroom are centred on the teacher. The teacher leads the activities and provides

necessary information. The teachers were in control of the learners' learning. We asked the questions and the learners responded. 'Barking at text' and individual reading were promoted. When the new educational policy for independent Namibia was formulated after March 1990, learner-centred education was chosen as a basis for the reform. According to the Namibian Ministry of Basic Education and Culture (1998), teacher-centred instruction was inefficient and frustrating to most learners, and not consistent with the ideal of 'education for all'.

While the teachers were competent in English and communicated in English with each other during the LS process and during the interviews, the learners were not. The learners were being introduced to learning English so that they could learn in English in the higher grades. The texts provided in the Grade 2 textbook were too advanced for the learners' level of competence. Despite the baseline assessment of the learners reading comprehension, we were not sufficiently knowledgeable of the learners reading and reading comprehension competence.

One of the cultural discursive arrangements that conditioned the extent to which the learners comprehended the text, was the teachers' own knowledge of DI. DI has only recently been introduced through the MoEAC (2015) curriculum policy, and all three of the teachers participating in this study completed their teacher education qualifications prior to the implementation of a learner-centred curriculum that emphasised inclusion of all learners. I (the researcher) was only introduced to DI during my BEd (Honours) degree.

The findings of this study have revealed that teachers know the language of DI, but do not necessarily implement it. The struggle was how to put DI into practice, and it appears that we do not really have thorough knowledge of how to implement DI. In addition to that, our practices are differing from our understanding of DI which influenced and conditioned the 'sayings', 'doings' and 'relatings' of the practice during the LS cycle. This influenced and shaped our actions during the LS process and in the classroom.

5.7.5. Material-economic arrangements

"The material-economic arrangements include all activities that make possible or shape the 'doings' of a practice by affecting what, when, how, and by whom something can be done"

(Mahon et al., 2017, p. 8). For example, the classroom interactions shape both the teachers' and learners' actions, as well as the physical environment in which the doings take place. This includes the classroom furniture and layout, visual equipment, time spent on teaching and learning activities, teaching aids displayed on the wall, timetable, teacher-learner ratios, and teachers' working experience etc.

This study has revealed a number of material-economic features which constrained and enabled the 'doings' of the classroom practice during the implementation of DI. These included the time required to engage in the LS process, the type of teaching material available and the number thereof.

Time was a constraint because the teachers required extra time for the LS process and to differentiate the readings and comprehension activities in the class.

The teaching aids (flash cards written vocabulary and pictures of series of events in the texts) influenced and shaped the teachers' actions. For example, in the first lesson, the teachers did not use teaching aids and this constrained the 'doings' of the teachers' practice. After the reflection sessions the teachers decided to use teaching aids for the next lessons (lesson two and three), and their actions to change their practice enabled some of the learners to comprehend the texts and answer the comprehension questions. In the other words, the actions of the teachers have shaped their 'doings' of the classroom practice and this has in turn shaped the actions and the 'doings' of the learners. One of the factors that influenced the 'doings' in a negative way was the teachers' expectation, it appeared that the teachers were expecting that all the learners finish the comprehension questions at the same time because they had differentiated the activities.

5.7.6. Social-political arrangements

The complexity of the vocabulary and the unfamiliar context in the first lesson constrained the teaching of reading comprehension and hindered the learners' ability to comprehend the text. This limited learner participation and engagement; especially the learners who were struggling with reading comprehension. They were thus excluded from developing an understanding of the text. This conditioned and influenced the relationship of the learners with the texts used in the lesson and it shaped both the learners' and the teachers' actions.

As the teachers reflected on their practice through LS sessions, the teachers became more mindful of the choice of texts. The focus in all the lessons was still teacher-centred classrooms. In teacher-centred classrooms “control is of primary importance and authority is transmitted hierarchically” (Dollard et al., 1996, p. 3), meaning that the teacher takes control of the learners and their learning. This is in many respects, contrary to the principles of DI.

Group work might have been possible in the LS process because we were a small team of participants. However, this was not possible because of Covid-19 and this constrained the social interaction within the learning space.

During the LS cycle, the teachers indicated that the support from fellow teachers was helpful and so one can conclude that the discussions and lesson reflections were enablement factors in this study. In addition, the lesson plans, discussions and reflections about the lessons were also enabling factors.

I summarise the ‘sayings’, ‘doings’ and ‘relatings’, and the practice arrangements that conditioned the LS process and the implementation of reading comprehension using DI.

Table 5. 2: Theory of Practice Architectures summary

‘Sayings’	Cultural-discursive arrangements
<p>We spoke about Lesson Study, Differentiated Instruction (process, product, content, readiness, interest, pace) and Reading Comprehension (Bloom’s taxonomy) in the practice.</p> <p>At the beginning of the LS process, the teachers’ described DI as a teaching strategy that caters for all learners’ learning and provides an opportunity for all learners to benefit</p> <p>At the end of the LS process, the participants described DI as a teaching strategy that caters for all learners’ learning needs by providing numerous ways to include all learners regardless of their abilities.</p>	<p>The teachers’ understanding of the discourse of DI is informed by the</p> <ul style="list-style-type: none"> • MoEAC inclusion policy <p><i>Lesson study process</i> (professional community)</p>
<p>The texts that the teachers chose, and the vocabulary in the texts, were too advanced for the learners. For</p>	<p>The medium of instruction at the school is the same as the learners’ home language (Oshikwanyama).</p>

<p>example, the vocabulary in the text for Lesson 2 included: unwilling, complicated, features, co-worker, fiftieth, messages and husband. These are terms that the learners need to understand in order to participate in the lesson and complete the comprehension exercise. In Lesson 3, we took note of the challenges with the vocabulary and used an easier text.</p>	<p>Learners are required to learn English as a Second Language in the Junior Primary. This subject is taught in English while the rest of the subjects are taught in the learners' home language.</p> <p>The choice of text was influenced by the</p> <ul style="list-style-type: none"> • The learning objectives and basic competencies in the MoEAC English Second Language <i>syllabus</i>. • Platinum Grade 2 English Second Language <i>textbook</i>. <p>English Second Language literature emphasises the importance of vocabulary development in learning to read (Chapter 2).</p> <p>The teachers speak English more fluently than the learners.</p> <p>The learners 'readiness' constrained their ability to interact with the text. <i>Struggling readers</i> were not able to engage with the text.</p>
<p>The language that the teachers used to describe and explain the DI practice used to develop learners' reading comprehension focused on:</p> <ul style="list-style-type: none"> • the complexity of the language in the text, • the time taken to implement DI, • the use of various teaching aids, • assessing learners' progress, • the kinds of questions that should be asked, • the extent to which learners participated, • learner pace and readiness, • organising the learners, • reflections about the lessons • the extent of differentiation in relation to content, process and product 	

<p>The reference to struggling learners not being able to read.</p>	<p>This discourse emerges from the view that teaching leads to learning.</p>
<p>'Doings'</p>	<p>Material-economic arrangements</p>
<p>The teachers engaged in a LS process. We met to plan the lessons, teach and observe the lessons and reflect on the lesson.</p> <p>The LS process assisted the teachers in the process of engaging with using DI to support learners' reading comprehension.</p>	<p>Time is required to implement the LS process as planning and reflecting have to take place 'outside' of the normal school day.</p>
<p>Reflections on lessons assisted in planning the next lesson. Weaknesses in lessons 1 and 2 were addressed in each of the reflection sessions.</p> <p>The readiness and pace of the learners was considered in differentiating the readings and questions.</p>	<p>The lesson study process requires that teachers' reflections after each lesson should be used to improve the next lesson or refine the original lesson.</p>
<p>The teachers collectively made decisions about which stories the learners should read. The first story, Lesson 1 (L1) did not take the learners' context into account. The learners are from a rural, low socio-economic community.</p>	<p>The lesson took place in the Grade 2 classroom. The class has 35 learners but not all the learners had the opportunity to participate in the activities due to the rotational system brought on by Covid-19.</p> <p>It is a well-furnished classroom with a chalkboard, tables, chairs, cupboard and display board. The space is not sufficient for the learners to move freely when carrying out various activities.</p> <p>The walls have colourful learning aids, for example, sight words and alphabet/phonetic charts.</p> <p>The teachers chose to use the board (L1) and flashcards (L2), and story sequencing cards (L3) were used to assist learners with the vocabulary.</p>

<p>The teachers collectively planned the lesson in each cycle based on their reflections of the previous lesson.</p>	
<p>The teachers chose to use different teaching aids to support the learners' understanding of the texts.</p>	
<p>The first lesson was not differentiated</p> <p>Learners were put into groups according to reading competence.</p>	<p>The focus for L1 was a <i>baseline assessment</i> to later split the class into two 'ability' groups. To differentiate learning the teachers needed to understand the 'readiness' of each learner to engage with the materials.</p> <p>The texts that the teachers chose, and the vocabulary in the texts, were too advanced for the learners.</p>
<p>The teachers asked the learners to read the text and identify words that were unfamiliar to them. The learners read the words in unison the teacher asked for volunteers to read the words one-by-one. The teacher told the learners what each word means.</p>	
<p>The teacher and learners read the title of the story together.</p> <p>L1 – two learners were chosen to read the text</p> <p>L2 – learners read the text silently</p> <p>L3 – teacher read the two stories and the learners read them silently thereafter</p>	
<p>Learners sequenced the pictures</p>	
<p>The teachers realised that they should use different texts for the different groups of learners.</p>	
<p>Over the course of the LS, the teachers were able to identify the appropriate level text for the learners.</p>	<p>The choice of text was influenced by the</p> <ul style="list-style-type: none"> • The learning objectives and basic competencies in the MoEAC English Second Language <i>syllabus</i>.

	Platinum Grade 2 English Second Language <i>textbook</i> . There were insufficient textbooks for the class. The teachers photocopied the stories for the learners.
The questions in lesson 1 were too complicated for the learners. Different questions were planned for the learners in lessons 2 and 3. These were influenced by <i>Bloom's Taxonomy</i> . The teachers added an evaluative question in lesson 2 and an application question in lesson 3 for the group that demonstrated more reading competence.	
Teachers found the LS process positive, reflection on the activities in relation to the learners' needs and learner mistakes were identified and strategies of how to support them were discussed.	
Teachers differentiated according to content, process and product.	
'Relatings'	Social-discursive arrangements
The teachers worked collaboratively during the LS process. They shared their ideas with regards to planning the lessons and during the reflection sessions. The teachers were also required to observe each other teaching.	The LS process encouraged collaboration between the participants. The participants are all class teachers which means that they teach all of the subjects. Any opportunities to work together, such as the LS, have to take place after hours.
The researcher is an HoD at the school with a significant number of years more experience in the classroom. She has also been teaching in the same grade as the participants. The participants participated in her Honours research project in 2019.	The Covid-19 protocols meant that only half of the learners attended each day, and that no group and peer work were allowed to take place.
The learners were distracted with the additional teachers in the class. The learners began to enjoy the lessons.	Historical teaching practices

<p>The teachers were in control of the class. All interaction was between the teacher and learners. The teacher decided who got to participate in the lesson based on which learners had their hands up. This meant that only a few learners participated and that most of the learners were passive.</p>	<p>The school's code of conduct and classroom rules indicate how learners are required to behave.</p> <p>The <i>readings</i> provided, the <i>questions</i> asked, and the <i>context</i> of the story promoted improved participation.</p>
	<p>The <i>pace</i> related more closely to the learners' levels of reading competence as the LS unfolded.</p>

5.8. CONCLUSION

This chapter discusses the data from the initial interview, the three lessons linked to the LS and the post-interview with the teachers. I begin this chapter with the presentation of teachers' profiles to provide insight into the participants in my research. Then follows an analysis of the initial interviews and the three lessons. I then present the development and discussion of the emerging themes. Followed by a discussion of the data from the post-interviews and the enabling and constraining factors for DI observed in the LS process. Then finally the data are analysed using the theory underpinning my study, that is, the Theory of Practice Architectures.

CHAPTER SIX: CONCLUSION

6.1. INTRODUCTION

In **Chapter 1**, I presented a rationale for the study. I drew on the learners' results in the SACMEQ and UNESCO studies, which show that Namibian learners are underachieving in reading. One of the reasons for this is that teachers lack the required content and pedagogical knowledge to teach reading.

Inclusive education is foregrounded in Namibia and this is translated into curriculum policy as differentiated learning. Teachers are required to differentiate their practice to meet the needs of all learners. The little training that has taken place on this has been in the form of 'one-size-fits-all' workshops that are removed from the context in which teachers teach. In this chapter, I argued and suggested that LS may provide teachers with an opportunity for professional development in their own context. It is for that reason, that the research focused on the use of LS to support teachers in implementing DI to develop learners' reading comprehension.

Chapter 2 focused on the conceptual framework of the research. I provided an overview of the literature relevant to the key concepts in the study, that is, LS, DI and reading comprehension. I argued that the continuous professional development model might assist teachers in using DI to develop learners' reading comprehension.

Chapter 3 presented the theoretical framework for my research. In this chapter, I presented the Theory of Practice Architectures as analytic and explanatory tools for my research. The Theory of Practice Architectures includes practice which consists of 'sayings', 'doings' and 'relatings', and practice arrangements, that is, cultural-discourse, material-economic and social political arrangements. The practice arrangements shape the 'sayings', 'doings' and 'relatings' of the practice, and are in turn shaped by them.

In **Chapter 4**, I focused on the research methodology of my study. The research is an action research underpinned by an interpretivist orientation. The participants in the research consisted of 3 Grade 2 teachers, that is, the researcher and two other teachers in the school where I teach. The teachers planned, implemented, and reflected on their lessons over 3

cycles. Data was collected in the form of interviews, observation schedules and document analysis. Data was first analysed using an emic approach to identify key themes emerging from the data. Thereafter, I drew on the ToPA to analyse my data.

In **Chapter 5**, I present and analyse the data generated during the research. This includes the interview data prior to and after the LS process, the lesson plans, observation schedules and reflections on the lessons. I first coded the data inductively to identify key themes. Thereafter, I analysed the data by drawing on the ToPA.

6.2. SUMMARY OF FINDINGS

I present the summary of the discoveries in connection with each research question.

6.2.1. Understandings of DI

The study revealed that the teachers began the study with knowing the goal and basic language of DI. That is, the teachers viewed DI as a teaching strategy that caters for the needs of all learners; and they were familiar with the terminology of DI (e.g., content, process and product), but they lacked the practices and skills to implement it.

While we engaged in three LS cycles with a view to implement DI to develop learners' reading comprehension, their basic explanation of DI in the interviews prior to and after the LS process remained primarily the same, but they had advanced in their understanding of how to design, redesign and implement a set of limited and focused but appropriate features of DI in a set of reading lessons for young learners.

This facilitated experience with the use of LS applied to the goals of DI, even though limited in the number of lesson cycles and time between lessons, demonstrated the potential of the approach to produce immediate innovations in lesson designs and selected teaching practices.

6.2.2. The use of Lesson Study to support teachers' implementation of Differentiated Instruction to develop all learners' reading comprehensions

Teachers found the opportunity to work collaboratively beneficial. The LS process enhanced teamwork among the educators as they planned, taught, observed each other, and reflected on the lessons taught during the intervention. As teachers, we shared diverse insights and their experiences as they were engaged in LS as a Continuous Professional Development process. In the process, they were able to develop our planning and reflection skills. We found LS enabled us to support each other and also learn from our colleagues. The teachers felt that they had gained a lot of valuable experience through this LS project.

On the negative side, the teachers found that the LS process required a lot of time in planning and reflecting on the lessons after hours. Finding time out-of-school to meet with each other proved to be a challenge. They said that the process encouraged too much debate as they all had different opinions on how to use DI to develop learners' reading comprehension.

The changes in our practices brought on by the 3 LS cycles were modest but educationally very appropriate 'small steps' for first timers working on redesigning lessons to become more DI in intention. These included identifying more appropriate texts, differentiating the texts and the questions given to the learners based on their reading comprehension competence, differentiating learners to have different texts, and adding visual teaching aids.

6.2.3. The enabling and constraining factors of the Lesson Study process

While the focus of this research was not to test the learners' reading comprehension, it became clear that the use of DI did not have the impact that we had hoped it would have. This is a result of several constraining factors.

- Our relative newness to DI was a reason for the limited impact. The teachers and I were aware of the MoEAC inclusion policy and the importance of DI in the classroom, however, our practices were constrained by our understanding of DI and the enactment thereof in the classroom.
- While the teachers were competent in speaking English (their second language) and able to use it in the LS process, the learners struggled to understand the texts and

comprehension questions. Through the LS process, we realised that the vocabulary was difficult for the learners and that the texts used in the Platinum textbook were not appropriate for the reading competence of our learners. The LS process also assisted us in realising that the context of the story had to be familiar to the learners should we wish them to comprehend the texts. The use of a text that the learners could not relate to, hindered their participation. As a result, they were not all included in the lesson.

- There were a number of learners in the class who could hardly read at all and our reading lesson changes and differentiation in the three lessons we delivered did not address their needs at all. But our LS and DI did have the benefit of clearly drawing our attention to their presence and how they were being left behind. More time and analysis of their reading status and appropriate teaching would be needed to support them. With greater experience of the need for different and quality reading diagnosis tools, we would be better equipped to identify and understand the different needs of the learners in our classes. Similarly, with more experience we would develop a range of pedagogical practices to use and this would hopefully make a difference in the outcomes. This I think is attainable by anyone committed to becoming competent in DI.
- Our reflections on the lessons and planning of new lessons were limited by our knowledge of DI and the choice of suitable texts and comprehension questions. In other words, we did not match the texts sufficiently to the learners' reading competence.
- To assist the learners in reading and comprehending the texts, we developed different teaching aids (flash cards written vocabulary and pictures of series of events in the texts). These influenced and shaped the 'doings' of our practice.
- As teachers in this study, we observed early on and throughout the project some of our teaching practices did not materially change. We noted that our teacher-centred methods, which tended to dominate our pedagogical practices appeared not to have changed much. We concluded this because we observed that we dominated the talk and conversations. We were in control of the learning in the classroom. Our relationships with

the learners were hierarchical in that we told the learners what to do and we asked the questions. The learners responded passively to instructions and answered the questions asked. The prohibition on small group work by learners because of the Covid restrictions was seen as a factor, but not the main explanation. We acknowledged that teacher-centred practices are deeply imbedded in our pedagogical practices and seem hard to change. But I believe that the evidence supports a view that if one chose to examine any teacher-centred practice that for some valid reason needed to be changed then the LS process should be able to assist in doing so. That being said, teacher-centred teaching does still have a place and I suggest that a more balanced position is necessary.

These limitations or constraints, described above, on achieving changes in these learners' reading performance are not really a criticism of the efficacy of using LS as a vehicle for introducing DI into classrooms and into teacher professional development. First, it is unrealistic to expect a big change in both teacher skills and especially learner reading skills in just 3 lessons. Second, these obstacles to success are also all insights into the learning challenges of these students that emerged from the LS and DI process itself. They are the insights that we seek to improve our pedagogical practices and improve how we enact DI better. They could guide some of the next steps in lesson design. As we know, teaching effective reading is not a one-week task, but requires sustained teaching and practices over some years.

6.3. RECOMMENDATIONS

Based on the findings, I recommend that teachers be trained on how to use LS to improve their knowledge, understanding and implementation of DI. This will assist in finding solutions to the limited reading comprehension competence of learners. I would recommend that Senior Education Officials familiarise themselves with the LS process and take a lead by in offering teachers the necessary training and support on how to utilise LS to promote DI in the classroom. Once acquired at the school level the prospect is of a huge load of CPD being conducted within schools on a self-sustaining basis with much less needed from above.

Furthermore, Junior Primary teachers should consider making use of DI in their teaching in order to assist and accommodate all the learners in all the learning activities and address the learners' individual needs. As highlighted in Chapter 1, CPD programmes are vital for teachers to advance their content and pedagogical knowledge for teaching reading (MoEAC, 2017). However, these programmes are far too infrequent and, there is a lack of support. It is for this reason that I suggest that the MoEAC, Inspectors of Education, district officials, principals and teachers support teachers to develop and improve their teaching practices, as well as their pedagogic knowledge through the use of LS.

6.4. AREAS FOR FUTURE RESEARCH

I suggest that further research on the use of LS to support the Grade 2 teachers in implementing DI would be of great benefit if the research explores the use of DI in different subjects in Junior Primary. Also what might be the curriculum and method of delivery of LS and DI workshops and support for teachers that would provide teachers with sufficient skill and confidence to go it alone in their schools?

I also suggest that research should be done on how the district officials can use LS to promote teachers' CPD and knowledge and implementation of DI.

It would also be valuable to research the optimal length of time that a group of teachers need to engage with LS processes and DI to become sufficiently confident to be able to go it alone with LS processes in a school. But also, it would be valuable to look into what is already known or needs to be known about the conditions that are most favourable for LS being adopted in a whole school use of LS. LS is now becoming more widely used outside Japan including in other parts of Africa, so there is much we can learn about conditions for success from them.

6.5. LIMITATIONS TO THE STUDY

This action research was designed to use LS to support the Grade 2 teachers in implementing DI to develop learners' reading comprehension in Endola circuit, Ohangwena region. Since the sample was small, the study cannot be generalised to represent all Grade 2 teachers in

Endola circuit. This study was carried during the critical stage of Covid -19 pandemic. The continual closure and re-opening of schools meant that the study was implemented in a very short period and with so many restrictions and new school and classroom protocols for teachers and learners (e.g., the rotational teaching system).

6.6. A SHORT REFLECTION

This research has benefited me in many phases. Firstly, it assisted me to rethink my pedagogical practices. Secondly, it served as an eye opener for me as a Head of Department and a Junior Primary facilitator at the circuit level. It gave me the opportunity to move from traditional ways of using a 'one- size- fits-all' approach to my teaching, whereby I can begin to focus my attention on the learning needs of all the learners in the class. It has made me to believe that practice makes perfect and teachers in the profession need to be upgraded continuously. With the experience gained through LS I would like to carry my next project in academic space in my circuit to introduce LS to my fellow educators because I believe that LS is one of the vehicles that we all need to deliver and promote quality education.

REFERENCES

- Acosta, K. (2019). The reading comprehension strategies of second language learners: A Spanish-English study. *Dimension*, 57, 58 - 85.
- Ahmed, R. A. I., & Rajab, H. (2015). Enhancing elementary level EFL students' reading comprehension and writing skills through extensive reading enrichment program. *International Journal of English Language Education*, 3(2), 28-42.
- Alavinia, P., & Farhady, S. (2012). Teaching vocabulary through differentiated instruction: Insights from multiple intelligences and learning styles. *Modern Journal of Language Teaching Methods*, 2(4), 35-73.
- Anderson, T. R., & Schönborn, K. J. (2008). Bridging the educational research-teaching practice gap: Conceptual understanding, part 1: The multifaceted nature of expert knowledge. *Biochemistry and Molecular Biology Education*, 36(4), 309-315.
- Anderson, K. M. (2007). Tips for teaching: Differentiating instruction to include all students. *Preventing School Failure*, 51(3), 49-53.
- Anfara Jr, V. A., Lenski, S. J., & Caskey, M. M. (2009). *Using the lesson study approach to plan for student learning*. *Middle School Journal*, 40(3), 50-57.
- Annala, J., Lindén, J., Nokelainen, P., Skaniakos, T., & Kukkonen, H. (2019). Professional Development in Higher Education (Finland). In W. J. Jacob, & X. Weiyan (Eds.), *Bloomsbury Education and Childhood Studies*. <https://doi.org/10.5040/9781350996298.0029>
- Almutairi, N. R. (2018). *Effective Reading Strategies for Increasing the Reading Comprehension Level of Third-Grade Students with Learning Disabilities* [Unpublished Doctoral thesis]. Western Michigan University
- Alvermann, D.E., & Mallozzi, C. A. (2010). *Interpretive research*. In A. McGill- Franzen & R.L. Allington (Eds.). *Handbook of Reading Disability Research* (pp.488-498). New York: Routledge
- Armbruster, B.B. (2003). *A child becomes a reader: birth through preschool* (2nd ed.). Portsmouth: National Institute for Literacy
- August, D., & Shanahan, T. (Eds.). (2007). *Developing Reading and Writing in Second-Language Learners: Lessons from the Report of the National Literacy Panel on Language-Minority Children and Youth*. London: Routledge
- Baba, T., & Kojima, M. (2003). Lesson Study, In Japan International Cooperation Agency. Japan: Japanese Educational Experiences.

- Beck, I. L., McKeown, M. G., & Kucan, L. (2008). *Creating robust vocabulary: Frequently asked questions and extended examples* (Vol. 10). Guilford Press, New York
- Bertram, C., & Christiansen, I. (2014). *Understanding research: An introduction to reading research*. Pretoria: Van Schaik Publisher
- Bertram, C., & Christiansen, I. (2016). *Understanding research: An introduction to reading research* (5th ed.). Pretoria: Van Schaik Publisher
- Bhatt, D., & Lilian, L. (2016). An analysis of receptive and productive skills of English language with special reference to indigenous people in Odisha. *International Journal of English Language, Literature and Translation Studies*, 3(3), 633-639.
- Burney D 2004. Craft knowledge: The road to transforming schools. *Phi Delta Kappan*, 85(7), 526-31.
- Candela, A. G. (2019). Exploring the function of member checking. *The Qualitative Report*, 24(3), 619-628.
- Castles, A., Rastle, K. & Nation, K. (2018). Ending the reading wars: Reading acquisition from novice to expert. *Psychological Science in the Public Interest*, 19(1), 5-51.
- Cerbin, W., & Kopp, B. (2006). Lesson study as a model for building pedagogical knowledge and improving teaching. *International Journal of Teaching and Learning in Higher Education*, 18(3), 250-257.
- Chhabra, V., & McCardle, P. (2004). Contributions to evidence-based research. In J. T Guthrie & N. M Humenick (Eds.), *The voice of evidence in reading research* (pp. 3–11). Baltimore: Paul. H. Brookes
- Chokshi, S., & Fernandez, C. (2004). Challenges to importing Japanese lesson study: Concerns, misconceptions, and nuances. *Phi Delta Kappan*, 85(7), 520-525.
- Coenders, F. G. M., & Verhoef, N. C. (2019). Lesson Study: professional development (PD) for beginning and experienced teachers. *Professional development in education*, 45(2), 217-230.
- Coghlan, D., & Brannick, T. (2001). *Doing action research in your own organisation*. London: SAGE
- Cohen, L & Manion, L. (2000). *Research methods in education* (5th ed.). London: Routledge
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). London: Routledge
- Collin, K. van der Heijden B., Lewis P. (2012). Continuing professional development. *International Journal of Training and Development*, 16, 155-163.

- Coşkun, A. (2017). The application of lesson study in teaching English as a foreign language. *İnönü Üniversitesi Eğitim Fakültesi Dergisi*, 18(1), 151-162.
- Cooper, H. (2007). *The battle over homework: Common ground for administrators, teachers, and parents*. Thousand Oaks, CA: Corwin Press
- Dollard, N., Christensen, L., Colucci, K., & Epanchin, B. (1996). Constructive classroom management. *Focus on Exceptional Children*, 29(2), 1-12.
- Dudley, P. (2013). *Lesson Study Handbook*. Cambridge: Cambridge University Press
- Duke, N. K., & Pearson, P. D. (2008). *Effective practices for developing reading comprehension*. Retrieved December 3, 2020, from http://www.ctap4.org/infolit/trainers/comprehe_strategies.pdf
- Edwards-Groves, C. (2018). The Practice Architectures of Pedagogy: Conceptualising the Convergences between Sociality, Dialogue, Ontology and Temporality in Teaching Practices. In O. B. Cavero and N. Llevot-Calvet (Eds.), *New Pedagogical Challenges in the 21st Century - Contributions of Research in Education* (pp.129-139). London: IntechOpen
- Edwards-Groves, C., & Grootenboer, P. (2015). Praxis and the theory of practice architectures: resources for -re-envisioning English Education. *Australian Journal of Language and Literacy*, 38(3), 150-161.
- Ergen, Y., & Batmaz, O. (2017). Primary school teachers' viewpoints on reading comprehension difficulties of 3rd and 4th Grade primary school students. *European Journal of Education Studies*, 3(11), 542-562.
- Fernandez, C. (2002). Learning from Japanese approaches to professional development: The case of lesson study. *Journal of Teacher Education*, 53(5), 393-405.
- Fernandez, C., Cannon, J., & Chokshi, S. (2003). A US-Japan lesson study collaboration reveals critical lenses for examining practice. *Teaching and Teacher Education*, 19(2), 171-185.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. NYC: Basic Books
- Gay, L. R., Mills, G. E. & Airasian, P. W. (2012). *Educational research: competencies for analysis and applications (10th ed.)*. Boston: Pearson
- Giddens, A. (1984). *Action Research for Educational Change*. Milton Keynes: Open University Press
- Glasson, S. (2005). *Hooked on questioning: How the teacher-librarian can change questioning practices in their schools*. [Paper presentation]. *ASL Annual Conference Proceedings: Informational Leadership in a Culture of Change*, Cranbrook School, Australia.

- Goodnough, K. (2003). Facilitating action research in the context of science education: Reflections of a university researcher. *Educational Action Research*, 11(1), 41-64.
- Grootenboer, P. (2013). The praxis of mathematics teaching: Developing mathematical identities. *Pedagogy, Culture and Society*, 21(2), 321-342.
- Grootenboer, P., Edwards-Groves, C. (2019). Learning mathematics as being stirred into mathematical practices: an alternative perspective on identity formation. *ZDM Mathematics Education* 51, 433–444
- Grootenboer, P., Edwards-Groves, C., & Rönnerman, K. (2020). *Middle leadership in schools: A practical guide for leading learning*. England: Routledge
- Hall, B., Strangman, N. & Meyer A. (2003). *Differentiated instruction and implication for UDL implementation*. Wakefield, MA: National Centre on Accessing the General Curriculum. Retrieved October 11, 2019, from http://www.cast.org/publications/ncac_diffinstructudl.Html
- Hall, B. (2009). *Differentiated instruction: Reaching all students*. Pearson's Research into Practice. Retrieved October 11, 2019, from https://www.wilsonsd.org/77032081816511420/lib/77032081816511420/DI_Reaching_All_Students.pdf
- Harrison, R. L., Reilly, T. M., & Creswell, J. W. (2020). Methodological rigor in mixed methods: An application in management studies. *Journal of Mixed Methods Research*, 14(4), 473-495.
- Harding, K. (2009). CPD. *Modern English Teacher*, 18(3), 1-8.
- Hargreaves, A., & Fink, D. (2006). Redistributed leadership for sustainable professional learning communities. *Journal of School Leadership*, 16(5), 550-565.
- Hartney, R. N. (2011). *Investigating reading difficulties in English Second Language of Grade 3 learners in one primary school in the Khomas Education Region of Namibia* [Unpublished Master's thesis]. University of Namibia.
- Hemmings, B., Kemmis, S., & Reupert, A. (2013). Practice architectures of university inclusive education teaching in Australia. *Professional Development in Education*, 39(4), 470-487.
- Hendayana, S. (2010). *Development of Lesson Study in Indonesia: Prospect and its challenges*. In E. Sujarwanto & I. Sanjaya (Eds.), *Theory, paradigm, principle and approach of mathematics and science learning in Indonesian context* (pp. 11-40). Bandung: FPMIPA UPI.
- Hengari, J. (2008). *Reading among grade six learners in Namibia: An investigation of reading habits and the attitudes of learners in the Khomas and Oshana regions of Namibia*. [Unpublished Doctoral thesis]. University of Namibia.

- Ismajli, H., & Imami-Morina, I. (2018). Differentiated instruction: Understanding and applying interactive strategies to meet the needs of all students. *International Journal of Instructional*, 11(3), 207-218.
- Jefferson, E.R., Grant, C.E. Sander, J. B. (2017). Effects of tier I differentiation and reading intervention on reading fluency, comprehension, and high-stake measures. *Reading Psychology*, 38(1), 97-124.
- Joseph, S., Thomas, M., Simonette, G., & Ramsook, L. (2013). The Impact of Differentiated Instruction in a Teacher Education Setting: Successes and Challenges. *International Journal of Higher Education*, 2(3), 28-40.
- Kemmis, S. (2007). Action research as a practice-changing practice. In *Spanish Collaborative Action Research Network (CARN) Conference* (pp. 18-20).
- Kemmis, S. (2010). What is to be done? The place of action research. *Educational Action Research*, 18(4), 417-427.
- Kemmis, S., & Grootenboer, P. (2008). Situating praxis in practice: Practice architectures and the cultural, social and material conditions for practice. In S. Kemmis & T. J. Smith (Eds.), *Enabling praxis: Challenges for Education* (pp. 37-62). Rotterdam: Sense Publishers
- Kemmis, S., & McTaggart, R. (2008). *The action research planner* (3rd ed.) Geelong: Deakin University Press
- Kemmis, S., McTaggart, R., & Nixon, R. (2014b). *The Action Research Planner: Doing Critical Participatory Action Research*. Singapore: Springer.
- Kemmis, S., & Smith, T. J. (2008). Praxis and praxis development: About this book. In I. Hardy (Ed.), *Enabling praxis* (pp. 149-170). Singapore: Brill Sense
- Kemmis, S. & Heikkinen, H. (2012). Future perspectives: Peer-group mentoring and international practices for teacher development. In H. Heikkinen, H. Jokinen & P. Tynjälä (Eds.) *Peer-group mentoring for teacher development* (pp.144–170). Milton Park: Routledge.
- Kemmis, S., Heikkinen, H. L., Fransson, G., Aspfors, J., & Edwards-Groves, C. (2014c). Mentoring of new teachers as a contested practice: Supervision, support and collaborative self-development. *Teaching and Teacher Education*, 43, 154-164.
- Kemmis, S., Wilkinson, J., Edwards-Groves, C., Hardy, I., Grootenboer, P., & Bristol, L. (Eds.) (2014a). *Changing practices, changing education*. Singapore: Springer
- Kemmis, S., & Edwards-Groves, C. (2018). *Understanding education: History, politics and practice*. Singapore: Springer

- Kirby, J. R. (2007). Reading comprehension: Its nature and development. *Encyclopaedia of Language and Literacy Development*, 1, 4–8.
- Konza, D. (2011). *Research into practice. Understanding the reading process*. Retrieved October 19, 2021, from https://www.ecu.edu.au/_data/assets/pdf_file/0009/663696/SA-DECS_-_Understanding-the-Reading-Process.pdf
- Koshy, V. (2005). *Action research for improving practice: A practical guide*. London: Paul Chapman.
- Leedy, P. D., & Ormrod, J. E. (2005). *Qualitative research methodologies: Practical research planning and design* (8th ed.). New Jersey: Pearson
- Levy, H. M. (2008). Meeting the needs of all students through differentiated instruction: Helping every child reaches and exceeds standards. *The Clearing House*, 81(4), 161-164.
- Lewis, C., Perry, R., Foster, D., Hurd, J., & Fisher, L. (2011). Lesson study: Beyond coaching. *Educational Leadership*, 69(2), 64-68.
- Lewis, J. D., Fane, K. E., Ingraham, A. M., Khan, A., Mills, A. M., Pitt, S. C., ... & Pollart, S. M. (2018). Expanding opportunities for professional development: utilization of Twitter by early career women in academic medicine and science. *JMIR Medical Education*, 4(2), 1-6.
- Lewis, C., Friedkin, S., Emerson, K., Henn, L., & Goldsmith, L. (2019). How does lesson study work? Toward a theory of lesson study process and impact. In R. Huang, A. Takahashi & J.P Ponte (Eds.), *Theory and practice of lesson study in mathematics* (pp. 13-37). Switzerland: Springer
- Mahon, K. A., Kemmis, S., Francisco, S., & Lloyd, A. (2017). Introduction: Practice theory and the theory of practice architectures. In K. A. Mahon, S. Francisco & S. Kemmis (Eds.), *Exploring education and professional practice through the lens of practice architectures* (pp. 1-30). Singapore: Springer
- Marble, S. T. (2006). Learning to teach through lesson study. *Action in Teacher Education*, 28(3), 86-96.
- Marsigit, D. B., & Rosnawati, R. (2012). Developing mathematical problem solving to prepare the implementation of lesson study of mathematics teaching in Indonesian schools of disaster area. In APEC-Tsukuba International (Ed.), *Innovation of Mathematics Education through Lesson Study Challenges to Emergency Preparedness for Mathematics* (pp. 14-18). Tsukuba-Tokyo, Japan.
- Maxwell, J.A. (1996). *Qualitative research design: an interactive approach*. Thousand Oaks, CA: SAGE

- Mancilla-Martinez, J., Hwang, J. K., Oh, M. H., & McClain, J. B. (2019, August 1). Early elementary grade dual language learners from Spanish-speaking homes struggling with English reading comprehension: The dormant role of language skills. *Journal of Educational Psychology*. <http://dx.doi.org/10.1037/edu0000402>
- Melby-Lervåg, M., & Hulme, C. (2013). Is working memory training effective? A meta-analytic review. *Developmental Psychology*, 49(2), 150-270.
- Mills, M., Amanda, K., & David, G. (2014). Differentiated learning: from policy to classroom. *Oxford Review of Education*, 40(3), 331-348.
- Mintre, R., & Lie, A. (2020). Higher Order Thinking Questions in Teaching Reading in a Private Primary School. *Beyond Words*, 8(1), 36-46.
- Mbelani, M. (2007). *Making visual literacy meaningful in a rural context: An action research case study* [Unpublished Master's thesis]. Rhodes University.
- Mutenda, J. (2008). *Teaching Reading in Grade Four Namibian Classes* [Unpublished Master's thesis]. Rhodes University.
- Murata, A. & Takahashi, A. (2002). Vehicle to connect theory, research, and practice: How teacher thinking changes in district-level lesson study in Japan. In D.S. Mewborn, P. Sztajn, D.Y. White, H.G. Wiegel, R.L. Bryant, K, & Nooney, (Eds.). *Proceedings of the Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp.1879-1888.) Eric Clearinghouse.
- Namibia. Ministry of Basic Education and Culture. (1998). *Curriculum for basic education*. Okahandja: NIED
- Namibia. Ministry of Education, Arts and Culture. (2003). *Language Policy for Namibian schools*. Okahandja: NIED
- Namibia. Ministry of Education, Arts and Culture. (2013). *Sector Policy on Inclusive Education*. Okahandja: NIED
- Namibia. Ministry of Education, Arts and Culture. (2015). *National Policy Guide for Junior Primary Subjects Grade 1-3*. Okahandja: NIED
- Namibia. Ministry of Education, Arts and Culture. (2016). *The National Curriculum for Basic Education and Culture*. Okahandja: NIED
- Namibia. Ministry of Education Arts and Culture. (2017). *A study of the conditions of schooling and the quality of primary education in Namibia*. Namibia working report SACMEQ Policy Research: Report No.4. Windhoek, Namibia.
- National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction:*

Reports of the subgroups. Washington, DC: National Institute of Child Health and Human Development

Nekondo, L.V. (2017). *Exploring genre- based pedagogy in the teaching of writing explanation texts in a Grade 11 ESL classroom* [Unpublished Master's thesis]. Rhodes University.

Nelson, N. W., & Van Meter, A. M. (2007). Measuring written language ability in narrative samples. *Reading and Writing Quarterly*, 23(3), 287-309.

Nkhahle, L.J. (2021). *A case study of Fundisa for Change continuing teacher professional development programme* [Unpublished Doctoral thesis]. Rhodes University.

Oaksford, L. and L. Jones. (2001). *Differentiated Instruction abstract*. Leon County Schools: Tallahassee, Florida.

Ogegbo, A. A., Gaigher, E., & Salagaram, T. (2019). Benefits and challenges of lesson study: a case of teaching physical sciences in South Africa. *South African Journal of Education*, 39(1), 1-9.

Ono Y & Ferreira J. (2010). A case study of continuing teacher professional development through lesson study in South Africa. *South African Journal of Education*, 30(1), 59–74.

Pang, M. F., & Ling, L. M. (2012). Learning study: Helping teachers to use theory, develop professionally, and produce new knowledge to be shared. *Instructional science*, 40(3), 589-606.

Pearson, A. J. (2015). *A mixed methods exploration of reading intervention, reading motivation and school engagement with high school learners* [Unpublished Doctoral thesis]. University of Oregon.

Qrqez, M., & Ab Rashid. R. (2017). Reading Comprehension Difficulties among EFL Learners: The Case of First and Second -Year Students at Yarmouk University in Jordan. *Arab World English Journal*, 8(3). <https://dx.doi.org/10.24093/awej/vol8no3.27>

Regan, K. S., Evmenova, A. S., Kurz, L. A., Hughes, M. D., Sacco, D., Ahn, S. Y., ... & Chirinos, D. S. (2016). Researchers apply lesson study: A cycle of lesson planning, implementation, and revision. *Learning Disabilities Research and Practice*, 31(2), 113-122.

Reynolds, M. S. J. (2016). *Mathematics teachers' reflection in the context of lesson study and the development of their knowledge for teaching* [Unpublished Doctoral thesis]. University of Pretoria.

Roback, P., Chance, B., Legler, J., & Moore. T. (2006) Applying Japanese Lesson Study Principles to an Upper-level Undergraduate Statistics Course, *Journal of Statistics Education*, 14(2), 1-21.

- Rock, T. C., & Wilson, C. (2005). Improving teaching through lesson study. *Teacher Education Quarterly*, 32(1), 77-92.
- Rosenshine, B., & Meister, C. (1997). Cognitive strategy instruction in reading. In S. Stahl & D. Hayes (Eds.), *Instructional models in reading* (pp. 85-107). Mahwah, NJ: Lawrence Erlbaum Associates
- Rosenshine, B. (2008). Five meanings of direct instruction. Centre on Innovation & Improvement. Retrieved on April, 30, 2020 from <http://www.centerii.org/search/Resources%5CFiveDirectInstruct.pdf>
- Rupley, W. H. (2009). Introduction to direct/explicit instruction in reading for the struggling reader: Phonemic awareness, phonics, fluency, vocabulary, and comprehension. *Reading & Writing Quarterly*, 25(2-3), 119-124.
- Saito, E. (2012). Key issues of Lesson Study in Japan and the United States: a literature review. *Professional Development in Education*, 38(5), 777–789.
- Salamon, A., Sumsion, J., Press, F., & Harrison, L. (2016). Implicit theories and naïve beliefs: Using the theory of practice architectures to deconstruct the practices of early childhood educators. *Journal of Early Childhood Research*, 14(4), 431-443.
- Schmuck, R. A. (2006). *Practical action research for change*. Thousand Oaks, CA: Corwin Press
- Schatzki, T. R. (2002). *The site of the social: A philosophical account of the constitution of social life and change*. Pennsylvania: Pennsylvania State University Press
- Schatzki, T. (2010). Materiality and social life. *Nature and Culture*, 5(2), 123-149.
- Shapaka, H. (2015). *An investigation of factors hampering grade 5 learners' reading with comprehension in English second language in the Oshana region* [Unpublished Doctoral thesis]. University of Namibia.
- Sternberg, R. J., & Gardner, M. K. (1983). Unities in inductive reasoning. *Journal of Experimental Psychology*, 112(1), 80-116.
- Stigler, J., & Hiebert, J. (1999). *The teaching gap: Best ideas from the world's teachers for improving education in the classroom*. New York: Free Press
- Stols G & Ono Y. (2016). *Lesson study: An implementation manual*. Retrieved on 25 March 2020, from https://schoolmaths.com/documents/Lesson%20Study%20Manual_Eng_Stols_Ono_25Dec2016.pdf.
- Suratno, T., & Cock, K. (2009). A school-university partnership in Indonesia: Lessons learnt from lesson study. In C. P. Lim, K. Cock, G. Lock, & C. Brook (Eds.), *Innovative practices in*

- pre-service teacher education: An Asia-Pacific perspective* (pp.69-90). Rotterdam: Sense Publishers
- Tomlinson, C. A. (1999). Mapping a route toward differentiated instruction. *Educational Leadership*, 57, 12-17.
- Tomlinson, C. A. (2000a). Differentiated instruction in the regular classroom. *Understanding Our Gifted*, 14(1), 3-6.
- Tomlinson, C. A. (2000b). Reconcilable differences. *Educational Leadership*, 58(1), 6-11.
- Tomlinson, C. A. (2000c). *Differentiation of Instruction in the Elementary Grades*. ERIC Digest.
- Tomlinson, C. A. (2001). *How to differentiate instruction in mixed ability classrooms*. Alexandria, VA: ASCD
- Tomlinson, C. A. (2008). Differentiated instruction. In J. A. Plucker & C. M. Callahan (Eds.), *Critical issues and practices in gifted education: What the research says* (pp. 167–179). Waco, TX: Prufrock Press
- Tomlinson, C. A., & Jarvis, J. (2009). Differentiation: Making curriculum work for all students through responsive planning and instruction. In J. S. Renzulli, E. J. Gubbins, K. S. McMillen, R. D. Eckert, & C. A. Little. (Eds.), *Systems and model for developing programs for the gifted and talented* (pp.599-628). Waco, TX: Prufrock
- Tomlinson, C., & McTighe, J. (2006). *Integrating differentiated instruction and understanding by design: Connecting content and kids*. Alexandria, VA: ASCD
- Tomlinson, C. A., & Imbeau, M. B. (2010). *Leading and managing a differentiated classroom*. Virginia: ASCD
- Tomlinson, C. A., Moon, T. R., & Callahan, C. M. (1998). How well are we addressing academic diversity in the middle school? *Middle School Journal*, 29(3), 3-11.
- Torres, N. G., & Constain, J. J. Á. (2009). Improving Reading Comprehension Skills through Reading Strategies Used by a Group of Foreign Language Learners. *HOW Journal*, 16(1), 55-70.
- UNESCO, Education Sector. (2017). *Reading the past, writing the future: Fifty years of promoting Literacy*. Paris: UNESCO. Retrieved June, 13, 2021 from <https://unesdoc.unesco.org/ark:/48223/pf0000247563>
- Van den Broek, P., & Espin, C. A. (2012). Connecting cognitive theory and assessment: Measuring individual differences in reading comprehension. *School Psychology Review*, 41(3), 315-325.

- Villegas-Reimers, E. (2003). *Teacher professional development: an international review of the literature*. Paris: International Institute for Educational Planning
- Watts-Taffe, S., Laster, B. P., Broach, L., Marinak, B. A., McDonald Connor, C., & Walker-Dalhouse, D. (2012). Differentiated instruction: Making informed teacher decisions. *The Reading Teacher*, 66(4), 303-314.
- Watanabe, T. (2002). Learning from Japanese lesson study. *Educational Leadership*, 59(6), 36-39.
- Wayse, E. (2011). *What is the Difference between Qualitative Research and Quantitative Research?* Retrieved June, 2020, from <https://www.snapsurveys.com/blog/what-is-the-difference-between-qualitative-research-andquantitative-research/>.
- Weselby, C. (2017) What is Differentiated Instruction? Examples of How to Differentiate Instruction in the Classroom. Retrieved on April, 30, 2020 from <http://education.cu-portland.edu/blog/teaching-strategies/examples-of-differentiated-instruction/>
- Whipple, K. A. (2012). *Differentiated instruction: A survey study of teacher understanding and implementation in a southeast Massachusetts school district* [Unpublished Doctoral thesis]. North-eastern University.
- Zuber-Skerrit, O. (2009). *Action learning and action research: Song lines through interviews*. Rotterdam: Sense Publishers

APPENDICES

APPENDIX 1: OBSERVATION SCHEDULES

Teacher A

Date: 28.07.2020

Teachers name (pseudonym):

Section A: To be completed during lesson presentation in the classroom.

Question	Description
How has the differentiation of content supported (or not) the learning in the classroom?	Differentiated instruction with the content was not supported because the work given was hard for weaker learners.
How has the differentiation of the process of learning supported (or not) the learning in the classroom?	Many terms used in the story were not clear to the learners and explained to them in their vernacular language by the learners to understand the story better.
How has the differentiation of the product supported (or not) the learning in the classroom?	The activity was the learners made by the learners in the classroom based on the given activity.
To what extent are the learners engaged in the lesson	Some of the learners participated in the class discussion although there are some learners who did not participate.
Any further observations / points to note	The teacher was supposed to cater for all the learners instead of focusing on the strong learners only.

Section B: To be completed during the reflection session.

1. What aspects of DI were successful in assisting the learners to comprehend the texts?

Choral reading of vocabulary.

2. What aspects of the use of DI did not go well in terms of assisting the learners in comprehending the text?

The article is better was 2nd inclusive because it is based on modern life and the advanced learners are living in rural areas, most of them are not exposed to the things contained in the story.

High barrier to communication

3. What needs to be improved with regards to the implementation of the lesson?

The issue of language barrier needs to be addressed because the level of English used by the teacher is way too far from the learner's English understanding.

In response to question 3 (above) what do we need to do to improve the implementation of DI to support learners' reading comprehension?

- I would suggest the teacher to explain complex terms used in the article to the learners in their mother tongue for the learners to have an understanding of the context before trying to make any attempt to the given activities.

4. Did you find differentiated instruction useful for teaching reading comprehension skill during this interaction? Explain your answer.

I find differentiated instruction very useful when teaching reading comprehension because different learners have different levels and ways of understanding, a classroom consist of all learners (fast and slow learning) and each and every one of them learn at their own pace.

5. What supported the use of Differentiated Instruction in the lesson? Explain your answer.

Levels of questioning

6. What hindered the use of Differentiated Instruction in the lesson? Explain your answer.

The teacher's fairness hindered the use of DI when giving activities for assessment because one might think it will not be fair if some activity given are too simple compared to others, although all the learners in the classroom need to be catered for.

Teacher B

Date: 08.07.2020

Teachers name (pseudonym):

Section A: To be completed during lesson presentation in the classroom.

Question	Description
How has the differentiation of context supported (or not) the learning in the classroom?	Not that well, because the story's context is too advanced, I could tell the expressions on their faces as they listened to the story. <i>too advanced</i>
How has the differentiation of the process of learning supported (or not) the learning in the classroom?	I think the teacher was being too fast, not considering the slow learners. I think she needed to use a slower pace and simplify the language, since it is second language in this case.
How has the differentiation of the product supported (or not) the learning in the classroom?	The product has not supported the differentiation based on the levels of questioning. Some learners were left out as only a few were able to answer the questions correctly. <i>most did not understand questions correctly.</i>
To what extent are the learners engaged in the lesson	partly engaged as most sat and daydreamed while the teacher asked questions, only a few were responding.
Any further observations / points to note	- The story was too advanced for the learners. - Reading was taught in isolation. - Numeracy was not promoted.

Section B: To be completed during the reflection session.

1. What aspects of DI were successful in assisting the learners to comprehend the texts?

- Vocabulary was elicited and the learners were given opportunity to read the new words.
- The teacher gave meanings to the new words.

2. What aspects of the use of DI did not go well in terms of assisting the learners in comprehending the text?

- Language used was too advanced.
- The text was too difficult for the learners to comprehend.
- Learners' learning paces were not considered.
- Content was not differentiated.
- The lesson did not cater for the needs of all the learners.
- Not all the learners were engaged in the lesson.

3. What needs to be improved with regards to the implementation of the lesson?

- Choice of the text needs to be at the level of the learners.
- There is a need of differentiating the content, process and product, this will help the teacher to achieve the learning goal of the lesson.
- Include all the learners in the lesson.
- Engage all the learners in the lesson.
- Invite learners for participation.
- Only few learners answered comprehension questions.

In response to question 3 (above) what do we need to do to improve the implementation of DI to support learners' reading comprehension?

- Choose appropriate texts for reading.
- Reading comprehension lessons needs to be differentiated in terms of content, process and product.
- Learners should be engaged in all the reading activities.
- Lesson should be differentiated in a way that it can promote reading comprehension.

- Language used was too advanced.
- The text was too difficult for the learners to comprehend.
- Learners' learning paces were not considered.
- Content was not differentiated.
- The lesson did not cater for the needs of all the learners.
- Not all the learners were engaged in the lesson.

3. What needs to be improved with regards to the implementation of the lesson?

- Choice of the text needs to be at the level of the learners.
- There is a need of differentiating the content, process and product, this will help the teacher to achieve the learning goal of the lesson.
- Include all the learners in the lesson.
- Engage all the learners in the lesson.
- Invite learners for participation.
- Only few learners answered comprehension questions.

In response to question 3 (above) what do we need to do to improve the implementation of DI to support learners' reading comprehension?

- Choose appropriate texts for reading.
- Reading comprehension lessons needs to be differentiated in terms of content, process and product.
- Learners should be engaged in all the reading activities.
- Lesson should be differentiated in a way that it can promote reading comprehension.

4. Did you find differentiated instruction useful for teaching reading comprehension skill during this interaction? Explain your answer.

No, learners were not fully engaged.
- The lesson did not cater for all the learners' learning needs.
- Lesson introduction was not well thought to engage the interests of the learners.
- Content, process and products were not differentiated.
- Language was too advanced for the learners, since English second language is not a medium of learning.

5. What supported the use of Differentiated Instruction in the lesson? Explain your answer.

- Use of vocabularies which were elicited from the texts read and explained to the learners.

6. What hindered the use of Differentiated Instruction in the lesson? Explain your answer.

- Choice of the text.
- Content
- Process
- Product
- Questions were not set in the way that learners could answer them.
- Learners were not fully engaged in the lesson.
- Lesson was more of teacher centred.

Teacher R

Date: 28.07.2020

Teachers name (pseudonym):

Section A: To be completed during lesson presentation in the classroom.

Question	Description
How has the differentiation of context supported (or not) the learning in the classroom?	The story was not at the level of the learners, it was hard to comprehend
How has the differentiation of the process of learning supported (or not) the learning in the classroom?	- The learning was not well supported because, there were no teaching aids used.
How has the differentiation of the product supported (or not) the learning in the classroom?	Questions were not well structured. - No pre activity was given.
To what extent are the learners engaged in the lesson	- The lesson was more on teacher centred. Learners were not engaged.
Any further observations / points to note	- Language was taught in isolation. There is no activity that is addressing grammar.

Section B: To be completed during the reflection session.

1. What aspects of DI were successful in assisting the learners to comprehend the texts?

- Vocabulary were written on the chalkboard, and the teacher read them with the learners and exp they were given meanings.

2. What aspects of the use of DI did not go well in terms of assisting the learners in comprehending the text?

- Not all the learners' needs were catered for.
- Vocabulary was too advanced for the learners.
- The teacher did not differentiate the text.
- No pre activity was given to prepare the learners for the post stage activities.
- Learning preferences and pace was not considered.

3. What needs to be improved with regards to the implementation of the lesson?

- Simplify the language.
- Consider learners' needs.
- Choose based context story.
- Engage all the learners in the lesson.
- Learning preferences and pace need to be considered.

In response to question 3 (above) what do we need to do to improve the implementation of DI to support learners' reading comprehension?

- Story needs to be at the level of the learners.
- Learners need to be given pre tests for comprehension before they work on post comprehension activity.
- The activity need to be differentiated.

4. Did you find differentiated instruction useful for teaching reading comprehension skill during this interaction? Explain your answer.

No, the teacher did not pay attention to the aspects of differentiated instruction. In other words the lesson was not well differentiated. Activities were not well set and learners were not well engaged in the lesson.

5. What supported the use of Differentiated Instruction in the lesson? Explain your answer.

The teacher wrote vocabulary on the chalkboard, they read the words with the learners and meanings were given.

6. What hindered the use of Differentiated Instruction in the lesson? Explain your answer.

- The text appeared to be complex. It was hard to differentiate because it was not well chosen for English Second language learners.
- These learners' medium of instruction is mother tongue and they are not well exposed to English. Learners were also not comfortable seeing 3 teachers in their class.

Date: 29.07.2020

Teachers name (pseudonym): Teacher A

Section A: To be completed during lesson presentation in the classroom.

Question	Description
How has the differentiation of context supported (or not) the learning in the classroom?	- It was supported because the text was context based - language was well simplified.
How has the differentiation of the process of learning supported (or not) the learning in the classroom?	- learners were fully engaged. - learners were given plenty of activities. - Difficult words were read and explained.
How has the differentiation of the product supported (or not) the learning in the classroom?	- Different questions were given and Bloom's Taxonomy levels of questioning was used. - learners performed well in the assessment.
To what extent are the learners engaged in the lesson	- learners were fully and actively engaged in the lesson.
Any further observations / points to note	- learners have enjoyed the lesson compared to the previous lesson.

Section B: To be completed during the reflection session.

1. What aspects of DI were successful in assisting the learners to comprehend the texts?

- The teacher read the vocabulary with the learners and ~~gives~~ gave the meaning.
- The lesson introduction was good, it aroused the interest of the learner.
- Assessment was well set.
- The story which the teacher used was simple and interesting, that is why learners found it easy to comprehend it and answer questions.

2. What aspects of the use of DI did not go well in terms of assisting the learners in comprehending the text?

- Some learners cannot read, so it was not easy for them to understand the story.

3. What needs to be improved with regards to the implementation of the lesson?

- Learners who can not read need to be given the story as a homework to read it at home and given comprehension question as a homework.

In response to question 3 (above) what do we need to do to improve the implementation of DI to support learners' reading comprehension?

- Maybe the learners need to be given different stories depending on their levels of readiness in terms of reading comprehension.
- The learners also need different questions for comprehension.

4. Did you find differentiated instruction useful for teaching reading comprehension skill during this interaction? Explain your answer.

Yes learners enjoyed the lesson. It was also useful because the story which the teacher choose was at the level of most learners.

- Language which the teacher used assisted the learners to comprehend the story and answered most questions well.

- The basic competency was well achieved because the assessment has show an improvement from the reflection of the previous lesson.

5. What supported the use of Differentiated Instruction in the lesson? Explain your answer.

- Simple language usage.

- Selection of teaching aids and simple story were appropriate.

- The assessment was valid because it was based on the story and the levels of learners.

- The steps of the lesson helped learners to understand the story because they were taken from one stage to another.

6. What hindered the use of Differentiated Instruction in the lesson? Explain your answer.

- Few learners do not know how to read. It was difficult to differentiate ^{reading} comprehension activities for a learner who doesn't know how to read at all.
- I think that the teacher was supposed to differentiate activities in different forms of language skills, e.g. learners demonstrating their understanding on speaking not only writing because some learners prefer to speak rather than writing.

Date: 29.07.2020

Teachers name (pseudonym): Teacher B

Section A: To be completed during lesson presentation in the classroom.

Question	Description
How has the differentiation of context supported (or not) the learning in the classroom?	- It supported the lesson well because the choice of the story is at the level of learners
How has the differentiation of the process of learning supported (or not) the learning in the classroom?	- Teacher included all the learners in the lesson - Support was given to the learners - Multiple activities given
How has the differentiation of the product supported (or not) the learning in the classroom?	- Questions were read to the learners and they were well explained to them. - Learners were involved in the lesson
To what extent are the learners engaged in the lesson	- Well engaged
Any further observations / points to note	- Numeracy and literacy were promoted in this interaction.

Section B: To be completed during the reflection session.

1. What aspects of DI were successful in assisting the learners to comprehend the texts?

Content - The story used was enjoyable and learners were familiar with it.

Process - Learners were given enough activities to try them before the main assessment.

Product: Good assessment with different questions at different levels.

Learning pace was considered by the teacher because she supported all the learners and catered for all their learning needs.

2. What aspects of the use of DI did not go well in terms of assisting the learners in comprehending the text?

Nothing, the teacher supported all the learners.

3. What needs to be improved with regards to the implementation of the lesson?

- The teacher needs to use different stories because some learners are likely to be struggling with reading, and they fail to comprehend some questions.

- If it wasn't for Covid-19 I would suggest group work.

In response to question 3 (above) what do we need to do to improve the implementation of DI to support learners' reading comprehension?

- Have many stories depending on the learners' ability to comprehend the story.

- Group work is needed but it is not possible because of Covid-19.

4. Did you find differentiated instruction useful for teaching reading comprehension skill during this interaction? Explain your answer.

- Yes
- Learners were supported and engaged
- All learners were included in the lesson.
- Many activities were given to the learners.
- Questions were well explained
- Learners enjoyed the lesson.
- Well presented teaching aids
- Pace of the learners.
- Readiness and clear assessment
- product, content and process were differentiated and it made the lesson to be successful.

5. What supported the use of Differentiated Instruction in the lesson? Explain your answer.

- Teacher engaged learners in the lesson.
- Reflection of the lesson which was taught previously and teachers' discussion was helpful because the weaknesses and mistakes from the other lesson help us to improve for this lesson.

6. What hindered the use of Differentiated Instruction in the lesson? Explain your answer.

- Some learners do not know how to read.
- Time was too little for DI lesson.

- Covid-19 situation because we could not put learners to work in groups.

Date: 21 of 2020

Teachers name (pseudonym): Teacher K

Section A: To be completed during lesson presentation in the classroom.

Question	Description
How has the differentiation of context supported (or not) the learning in the classroom?	- It has supported the learning as the context that the language use was easier to comprehend. - Learning style was considered.
How has the differentiation of the process of learning supported (or not) the learning in the classroom?	- Learners were taken through different steps that helped them to master the concept. - Varied learning support materials were used.
How has the differentiation of the product supported (or not) the learning in the classroom?	- Different questions were set to accommodate all the learners. - Pic activities were given before the post activities to prepare the learners.
To what extent are the learners engaged in the lesson	- Learners were fully engaged in all the activities and they were supported.
Any further observations / points to note	- Learners were active. - Language was intergraded in the lesson.

Section B: To be completed during the reflection session.

1. What aspects of DI were successful in assisting the learners to comprehend the texts?

- The texts used for reading lesson was well differentiated and it help the learners to comprehend the text.
- Language used was appropriate for the learners.
- Vocabulary were picked from the text and they were read and given meanings.
- Flashcards with vocabulary were used for reading.

2. What aspects of the use of DI did not go well in terms of assisting the learners in comprehending the text?

Date: 29.07.2020

Teachers name (pseudonym): Teacher R

Section A: To be completed during lesson presentation in the classroom.

Question	Description
How has the differentiation of context supported (or not) the learning in the classroom?	- It has supported the learning in the sense that the language use was easier to comprehend. - Learning pace was controlled.
How has the differentiation of the process of learning supported (or not) the learning in the classroom?	- Learners were taken through different steps that helped them to master the concept. - Varied learning support materials were used.
How has the differentiation of the product supported (or not) the learning in the classroom?	- Different questions were set to accommodate all the learners. - Pre-activities were given before the post activities to prepare the learners.
To what extent are the learners engaged in the lesson	- Learners were fully engaged in all the activities and they were supported.
Any further observations / points to note	- Learners were active. - Language was intergraded in the lesson.

Section B: To be completed during the reflection session.

1. What aspects of DI were successful in assisting the learners to comprehend the texts?

- The texts used for reading lesson was well differentiated and it help the learners to comprehend the text.
- Language used was appropriate for the learners.
- Vocabulary were picked from the text and they were read and given meanings.
- Flashcards with vocabulary were used for reading.

2. What aspects of the use of DI did not go well in terms of assisting the learners in comprehending the text?

- Even though learners were taken through all the stages of the lesson, some learners were still finding it hard to comprehend the text.
- Learners who have general difficulties in reading made it hard for the successful implementation of DI.

3. What needs to be improved with regards to the implementation of the lesson?

- Learners who have reading problem needs enough time to comprehend the text.
- The same learners need to read the text as many times as possible to be able to understand it and answer the questions for both pre, while and post stages.

In response to question 3 (above) what do we need to do to improve the implementation of DI to support learners' reading comprehension?

- Pay attention to vocabulary.
- Learners who are struggling to comprehend the lesson story need to be given more time to read the text over and over to be able to answer the comprehension questions.

4. Did you find differentiated instruction useful for teaching reading comprehension skill during this interaction? Explain your answer.

Yes, because the learners were fully engaged.

- Learners were supported throughout the lesson.
- Content, process and product were differentiated.
- The text used was easy to comprehend.
- Questions and language used were at the learners' level and learning pace, thus, it made it possible for the learning goal to be achieved.

5. What supported the use of Differentiated Instruction in the lesson? Explain your answer.

- Choice of the text used for the interaction because it was at the appropriate level.
- The reflection of the previous lesson because it helped us/teachers to identify weaknesses and address them in this lesson.
- Levels of questioning was utilised during the setting of activities.

6. What hindered the use of Differentiated Instruction in the lesson? Explain your answer.

- Learners who have reading problem simply because they were finding it hard to read and comprehend the text.

Date: 30-07-2020

Teachers name (pseudonym): Teacher A

Section A: To be completed during lesson presentation in the classroom.

Question	Description
How has the differentiation of context supported (or not) the learning in the classroom?	- Good and easy texts were used. - Well simple language used.
How has the differentiation of the process of learning supported (or not) the learning in the classroom?	- Good activities and steps were utilised to assist the learners to learn. - Explanations were given.
How has the differentiation of the product supported (or not) the learning in the classroom?	- Well designed learning materials that supported learning - Assessments were good and catered for all the learners.
To what extent are the learners engaged in the lesson	- Learners were fully engaged - Maximum participation was observed
Any further observations / points to note	- Teacher assisted learners who are struggling to read and understand the text.

Section B: To be completed during the reflection session.

1. What aspects of DI were successful in assisting the learners to comprehend the texts?

New words were identified, read and well explained.

- The learners were fully supported.

2. What aspects of the use of DI did not go well in terms of assisting the learners in comprehending the text?

Lesson was successful, but some learners who can not read were struggling even though they were given simple stories to read that match their levels.

3. What needs to be improved with regards to the implementation of the lesson?

DI is good but it takes time. Maybe the teacher needs to extend time for successful implementation.

In response to question 3 (above) what do we need to do to improve the implementation of DI to support learners' reading comprehension?

- Attention of time needs to be considered.
- Learners who find it hard to read need to be given homeworks on reading.

4. Did you find differentiated instruction useful for teaching reading comprehension skill during this instruction? Explain your answer.

- Yes. Because everything was simplified and well differentiated.
- This was the successful lesson in which implementation of DI was well used.

5. What supported the use of Differentiated Instruction in the lesson? Explain your answer.

- Teachers' reflections were useful because we managed to maintain our strengths and improve the weaknesses.
- The support from my colleagues.

6. What hindered the use of Differentiated Instruction in the lesson? Explain your answer.

— Time was limited.

Date: 30.07.2020

Teachers name (pseudonym): Teacher B

Section A: To be completed during lesson presentation in the classroom.

Question	Description
How has the differentiation of context supported (or not) the learning in the classroom?	- Well supported because the learners were given multiple stories depending on their levels of readiness and learning paces.
How has the differentiation of the process of learning supported (or not) the learning in the classroom?	- Learners were included in the lesson. - Learners were supported and taken through different steps. - Teacher used simple language. - Teaching aids were used.
How has the differentiation of the product supported (or not) the learning in the classroom?	- Activities supported learning. - Teaching aids helped the learners.
To what extent are the learners engaged in the lesson	- Learners were engaged.
Any further observations / points to note	- The teacher was confident. - This was the most successful lesson.

Section B: To be completed during the reflection session.

1. What aspects of DI were successful in assisting the learners to comprehend the texts?

- Product, Content and Process were well differentiated.
- The use of different stories helped the learners to understand diff. def. the stories depending on their level of readiness.
- Use of learning materials.

2. What aspects of the use of DI did not go well in terms of assisting the learners in comprehending the text?

- It was a bit difficult to differentiate due to the learners who can not read and comprehend the text.

3. What needs to be improved with regards to the implementation of the lesson?

- Differentiated instruction needs to be implemented in lessons which when there is enough time.

In response to question 3 (above) what do we need to do to improve the implementation of DI to support learners' reading comprehension?

- Time was the challenge.

4. Did you find differentiated instruction useful for teaching reading comprehension skill during this interaction? Explain your answer.

Yes, Differentiation of product, content and process assisted.

- Learning aids were assisted the reading comprehension lesson.
- Texts which were used helped the learners to comprehend the texts.
- Questions were on Bloom's Taxonomy and it catered for all the learners' learning needs.

5. What supported the use of Differentiated Instruction in the lesson? Explain your answer.

- Differentiation of product, process and content.
- Weakness identified from the last ~~lesson~~ reading lesson helped the teacher to improve the lesson.
- Activities were well self designed and they assisted the learners.
- Teachers' discussion was helpful for the successful implementation of DI.

6. What hindered the use of Differentiated Instruction in the lesson? Explain your answer.

4. Did you find differentiated instruction useful for teaching reading comprehension skill during this interaction? Explain your answer.

Yes, Differentiation of product, content and process assisted.

- Learning aids were assisted the reading comprehension lesson.
- Texts which were used helped the learners to comprehend the texts.
- Questions were on Bloom's Taxonomy and it catered for all the learners' learning needs.

5. What supported the use of Differentiated Instruction in the lesson? Explain your answer.

- Differentiation of product, process and content.
- Weakness identified from the last ~~lesson~~ reading lesson helped the teacher to improve the lesson.
- Activities were well set designed and they assisted the learners.
- Teachers' discussion was helpful for the successful implementation of DI.

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- Differentiation of product, process and content.
- Weakness identified from the last ~~lesson~~ reading lesson helped the teacher to improve the lesson.
- Activities were well self designed and they assisted the learners.
- Teachers' discussion was helpful for the successful implementation of DI.

6. What hindered the use of Differentiated Instruction in the lesson? Explain your answer.

- Time was not enough.
- Learners who have reading problem made the lesson challenging.

Date: 30.07. 2020

Teachers name (pseudonym): Teacher R

Section A: To be completed during lesson presentation in the classroom.

Question	Description
How has the differentiation of context supported (or not) the learning in the classroom?	- Differentiation has supported the learning because the pace & readiness of the learners were well considered.
How has the differentiation of the process of learning supported (or not) the learning in the classroom?	- Learners were taken through different steps to help them to comprehend the text.
How has the differentiation of the product supported (or not) the learning in the classroom?	- Learning activities and assessments were up to standard and they matched to basic competency.
To what extent are the learners engaged in the lesson	- Learners were engaged throughout the lesson.
Any further observations / points to note	- Numeracy and other language skills well integrated in this literacy lesson.

Section B: To be completed during the reflection session.

1. What aspects of DI were successful in assisting the learners to comprehend the texts?

- Vocabulary were given meanings right from the start.
- Product, process and content were well differentiated.
- The stories used were well differentiated to match the reading paces of all the learners.
- Introduction was well thought and it helped the successful implementation of DI.

2. What aspects of the use of DI did not go well in terms of assisting the learners in comprehending the text?

- It was hard and time consuming because it was not easy to differentiate the texts for learners depending on their learning paces and readiness to comprehend the texts.

3. What needs to be improved with regards to the implementation of the lesson?

The lesson was successful, however learners who needed more support needed more time.

In response to question 3 (above) what do we need to do to improve the implementation of DI to support learners' reading comprehension?

- We need to use double lessons in future.

4. Did you find differentiated instruction useful for teaching reading comprehension skill during this interaction? Explain your answer.

Yes, Because vocabulary were read and given meanings. Since the meanings of difficult and new words were given. It gave learners good sense of comprehending the text.

- Different text were used to cater for different learners at different learning paces and different readiness of comprehending the text.

5. What supported the use of Differentiated Instruction in the lesson? Explain your answer.

- Explanation of Vocabulary.
- Differentiated process.
- Learning materials used were helpful to support learning.
- Assessment was well set and learners were taken through different steps to get prepared for the actual final stage assessment.
- Reflection of the previous lesson was useful.

What hindered the use of Differentiated Instruction in the lesson? Explain your answer.

- Learners who find it hard to comprehend the text due to reading problem.
- Time was not enough to support all the learners.

APPENDIX 2: ANALYTIC FRAMEWORK

Elements of practices	Practice architectures in the site
<p>Project What do participants – including myself and others – say they are doing, or intend to do, or have done? (Note: different participants and others may answer this question differently)</p>	<p>Practice Landscape How different participants and others involved or affected, inhabit the site in different ways, that is, interact with different people and objects, and occupy different places and spaces in the site as a whole.</p>
<p>‘Sayings’ (communication in semantic space)</p>	<p>Cultural-discursive arrangements (Note: one person’s sayings are also practice architectures that enable or constrain others’ sayings)</p>
<p>What do different participants say in the practice as they do it (what language is used; especially specialized language used in this practice)? What ideas are the most important to the different participants? What language ideas do different participants use about the practice (specifically to describe, explain and justify the practice before and after they do it)? How are different participants’ language and ideas changing?</p>	<p>Where does this special language or discourse come from (e.g., texts, policies, professional communities, language communities)? Who speaks this language in the site? Who speaks it most/least fluently? Is there contestation among people involved or affected about the language, or key ideas or importance?</p>
<p>‘Doings’ (activities, often producing or achieving something, in physical space-time)</p>	<p>Material-economic arrangements</p>
<p>What are participants doing? Are there any consequences or connections between activities? Are ends or outcomes being achieved?</p>	<p>What physical spaces are being occupied over time? Are kinds of set-ups of objects involved? What material and financial resources are involved? Are the resources adequate?</p>
<p>‘Relatings’ (relationships in the social space, especially relationships of power and solidarity)</p>	<p>Social Political Arrangements</p>
<p>How do participants and others involved or affected relate to one another? Are there systems of positions, roles or functions? Are relationships of power involved? Are there relationships of solidarity and belonging (shared purposes)?</p>	<p>What special and administrative systems of roles, responsibilities, functions, obligations and reporting relationships enable and constrain relationships in the site. Do people collaborate or compete for resources (or regard)? Is there resistance, conflict or contestation? Is the communicative space a public sphere?</p>

Using the Theory of Practice Architectures as an analytic tool (Kemmis, et al., 2014d, pp.81-82)

APPENDIX 3: RHODES UNIVERSITY ETHICS APPROVAL



Dr Lise Westaway
Faculty of Education
Rhodes University

20 March 2020

Dear Dr Westaway,

RE: Research Ethics Approval Ms Elizabeth Magano Shipanga (17S8150)

I hereby grant provisional ethical approval for the study proposed by Ms Elizabeth M. Shipanga, M.Ed candidate in the Department of Education (Full thesis), provisionally titled "The use of lesson study to support Grade Two teachers in implementing differentiated instruction to develop learners' reading comprehension skills"

I have noted changes made in relation to comments from reviewers, in particular that the candidate has indicated she has no Conflict of Interest in the study. She has also taken advice to hold a meeting with parents rather than to only send out consent letters, and has refined her Permission and Consent letters.

Approval will only be finalised once the Education Ethics Chair (E.Rosenberg@ru.ac.za) and Education Ethics Manager (chakonagamu@gmail.com) receive and acknowledge the valid, signed permission letter from:

- the Namibian Ministry of Education Arts and Culture (Director of Education)
- the school principal

Approval has been granted for 1 year. An annual progress report will be required in order to renew approval. An e-mail reminder will be sent in this regard. Please notify the Education Ethics Chair should any substantive change that deviates from this application, be made during the research process. Please also submit a brief report upon the completion of the research. The purpose of this report is to indicate whether the research was conducted successfully, or if any problems arose of which the Education Ethics Committee should be aware.

If a thesis or dissertation arising from this research is submitted to the library's electronic theses and dissertations (ETD) repository, please notify the Chair of the date of submission and/or any reference or cataloging number.

The Provisional Ethics Clearance Number for this study is 2020-03/4.

Yours faithfully,

Prof Eureka Rosenberg
Education Ethics Chair

Copied to:
Dr Gamuchirai Chakona
Mr Siyanda Manqele

APPENDIX 4: REGIONAL DIRECTORATE OF EDUCATION ARTS AND CULTURE CONSENT LETTER



REPUBLIC OF NAMIBIA
OHANGWENA REGIONAL COUNCIL
DIRECTORATE OF EDUCATION, ARTS AND CULTURE

Seibers' Office of the Director
Tel: (+264) 65 290200
Fax: (+264) 65 290224
E-mail: Magano.Gaases
Our Ref: 123/10/1

Harobecke Street, Greenwell Complex
Private Bdg. 88005
Eenhana

26 May 2020

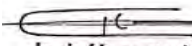
To: Elizabeth M Shipanga
P.O Box 1049
Ondangwa

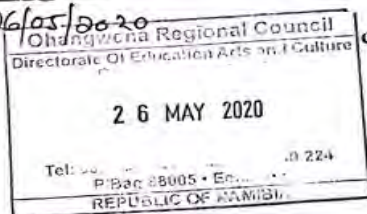
Dear Mrs. Shipanga

**SUBJECT: PERMISSION TO UNDERTAKE A RESEARCH STUDY AT OSHALI
WEST COMBINED SCHOOL IN ENDOLA CIRCUIT**

1. Receipt of your letter on the above stated subject is hereby acknowledged.
2. The request has been evaluated and found to have merit.
3. Kindly be informed that permission to conduct research titled: *"the use of lesson study to support the grade two teachers in implementing differentiated instruction to develop learners' reading and comprehension"* at Oshali West Combined School has been granted under the following conditions and requests:
 - The information to be collected should only be used for the completion of your studies.
 - Kindly liaise with the concerned School Principal so that you make prior arrangements before the date of the data collection.
 - You should share the final report of your study with the directorate.
4. It is trusted that you will find this arrangement in order while wishing you all the best with your studies.

Yours Sincerely,


Isak Hamatwi
Director



cc: Principal-Oshali West CS

APPENDIX 5: TEACHERS' CONSENT FORMS

Letter of informed consent: Participants- Teachers



RHODES UNIVERSITY

Where leaders learn

The research title is: The use of lesson study to support teachers in implementing differentiated instruction to develop learners' reading comprehension skill.

The research questions are:

- What are the Grade 2 teachers' understandings of differentiated instruction?
- How can differentiated instruction be used to develop Grade 2 learners' reading comprehension skills?
- What are the factors constraining or enabling the use of differentiated instruction when teaching reading comprehension skills in Grade two classroom?

Researcher: Elizabeth M Shipanga

This consent form, a copy of which will be left with you for the records and reference is only part of the process of informed consent. This form explains the basic ideas of the research process and your involvement in the research. Enquiries are welcome on the given contact details in this letter if more clarity is needed.

This communicate serves as an invitation to participate in the master's thesis research I am planning to conduct in order to complete my Master's in Primary Education with the faculty of Education at the University of Rhodes (Grahamstown, South Africa). My thesis advisor is Dr. Lize Westaway. I would like to provide you with more information about my research and what your involvement would entail, if you decide to take part.

Participation in this research is voluntary. It will involve you and the group of participants and I the researcher to take part in a Lesson Study process which will involve collaborative, planning sessions, lesson presentations, reflection sessions and focus group interviews. It will also involve me and one of the grade two teachers to be part of your classroom space for 3 days during the research for the purpose of data collection.

You will also be interviewed once by me for approximately 40 minutes after the research. The interviews will take place in mutual agreed upon location, time and after your work hours. You are allowed to answer or decline any question you wish. With your permission video recordings of the interviews, lesson presentations and planning and reflection sessions will be done to facilitate the collection of accurate data to transcribe for data analyses.

All the information provided is considered confidential. Your name or other personal information identifying you will not be used in the thesis paper resulting from this study, or any presentation that I may give at the completion of my thesis. However, with your permission quotations may be used along with pseudonyms to protect your identity. Transcriptions and videos collected during the research will be retained until my research is completed and will be stored in a lockable cupboard where I am the only one who have access to the key.


I do not foresee any risks to you as a participant to take part in this research, but you may benefit from the professional dialogue and reading the final results of my research which will be available to you. No financial gain is provided for taking part in this research.

This research has been approved by the ethics committee of the University. I look forward to working with you and thanking you in advance for the part you will play in this research.

Yours in education



E. Shipanga (researcher)



Dr. L. Westway (Thesis advisor)

(Rhodes University Post Graduate Student) Mobile: 0813621891 e-mail shipangae@gmail.com

Your signature on this form will be an indication that you understood the information regarding your participation in this research and agree to take part in this research. If you agree to the following information, feel free to sign at the bottom of the page.

- I understand the purpose of the research and my involvement in it.
- I may freely to withdraw from the study at any time/ and or refrain from answering questions I prefer to omit.
- I am informed that I can ask for clarity or any new information throughout the research.
- I will receive no financial compensation for taking part in this research.
- I agree to video recordings of lesson presentations and interviews.
- I agree that the information gained may be published and that I will remain anonymous and no reference will be made to me by name or other personal information.

- I understand that there may be possible risk as well as benefits for taking part in this research.
- I declare that the above information was explained to me by Ms. E M Shipanga in English and I have good command of this language.

I am agreeing to:

Allow the researcher (E M Shipanga) to access my class for 3 days in a week during the research. Also, to be interviewed after the lesson study for more than 40 minutes, allow my comments to be used in the reporting of the data collected. I hereby agree that video recording will be done during lesson presentations, planning sessions, reflection sessions and interviews.

APPENDIX 6: AGENDA FOR THE PARENTS' MEETING, MINUTES OF THE PARENTS' MEETING AND CONSENT LETTERS.



RHODES UNIVERSITY

Where leaders learn

Letter of informed consent: Parents (for learner's participation)

Dear Parents

I am a teacher and a registered Master in Primary Education student at the Rhodes University in Grahamstown, South Africa. As part of my coursework I am required to conduct a research project. I have decided to choose a topic that will focus on improving teaching and learning in your child's school. My research is based on Lesson Study which is a professional development tool for teachers. I want to use Lesson Study to support teachers in implementing differentiated instruction to develop learners' reading comprehension.

Together with two Grade Two teachers, we will plan a series of lessons to develop the learners' reading comprehension in English. The research will require us to observe each other teaching in the Grade Two class during the school day. I would like to request your permission to observe in your child's class for 3 days.

The lessons will be video-recorded. While the focus is on the teacher, it is likely that your child might be on the video. I would like to assure you that your child's anonymity will be a matter of priority in this study. All the information that we will collect during the research, for example, children's work, will be treated with the strictest confidentiality. Your child's name or other personal information that may identify them will not be used in the research report (thesis), or in any presentation that I may give on completion of my research. The only people who will see any of the video-recorded data and your child's work will be the other two Grade 2 teachers and I the researcher.

This research has been approved by the ethics committee of Rhodes University (number2020-03/4). The principal, Inspector and District Director have agreed that I may conduct my research. Your consent is also needed before I can embark on my research project. Your child

will not be discriminated in any way should you prefer him/her not to participate in the research.

Should you have any queries, please feel free to contact my supervisors, Dr Lise Westaway (+27 46 603 8383 or l.westaway@ru.ac.za) and Ms Bev Moore (+27 46 603 8383 or b.moore@ru.ac.za).

Should you have any ethical concerns during my research, please contact the Ethics Coordinator (ethics-committee@ru.ac.za), Research Office, Rhodes University, Makhanda/Grahamstown, 6140.

Yours in education

Ms Elizabeth Magano Shipanga 0813621891 shiangae@gmail.com

Please circle **Yes** or **No**

Yes, I am happy for the research to take place in my child's class.

No, I would not like my child to be involved in the research project in any way.

AGENDA FOR THE PARENTS' MEETING

Date: 21 July 2020

Time: 13h00

Venue: Grade 1 classroom

Chairperson: [REDACTED]

Secretary: [REDACTED]

1. National anthem
2. Prayer : [REDACTED]
3. Welcoming remarks: [REDACTED]
4. Aim of the meeting: Ms E M Shipanga
5. Signing of consent letters: Parents who are giving consent for their children to be involved in the research project

[REDACTED] Closure: [REDACTED]

MINUTES OF THE PARENTS' MEETING

Date: 21 July 2020

Time: 13h00

Venue: Grade 1 classroom

Chairperson: [REDACTED]

Secretary: [REDACTED]

The house sang the National anthem and [REDACTED] made a prayer. The Grade 2 teacher [REDACTED] welcomed all the parents present and encouraged them to come through with constructive ideas during the discussions and listen well to the explanations that will be given to them. She further thanked the parents for responding to the invitation to attend the crucial meeting.

Ms Shipanga greeted the parents and expressed her gratitude by thanking the parents for responding positively to the invitation to the meeting. She started explaining the aim of the meeting which she clearly stated to the parents that, she a masters' student at Rhodes university South Africa majoring in Primary Education. She further, explained to the parents that she needs to complete her masters through a research project which will involve the learners. She also explained to the parents that, since learners are minors, she needs consent from their parents or legal guardian to be able to involve the learners in this research project. She explained that it is also part of the requirement from the university ethical committee to obtain consent from all the people involved in the research before any data generating process has begun. She highlighted that; the research project will take 3 days during normal teaching hours during English Second Language. She took a consent form and give to each parents, they read together and explained every step of the consent letter. The consent letter was explained in mother tongue/ most spoken local language because most of the parents do not understand English. She gave the parents opportunity to ask questions if anything was not clear. Lastly, she explained that if the parents have agreed for their children to be part of the research project must sign the consent letters and return to them and for the parents

who do not want their children to be part of the research project they must not sign the consent letter. Out of 30 parents, only 25 have agreed to sign the consent whilst, the 5 did not sign and they were not forced to sign because it is against the research ethics.

██████████ closed the meeting by thanking the parents for devoting their time to attend the crucial meeting. She then made a prayer.

██████████ (chairperson)

██████████ (secretary)

APPENDIX 7: RESPONSE FROM INITIAL INTERVIEW

	Responses from the teachers	Themes/ coding colours
1. 1. How many years have you been teaching?	<p>TA: I have been teaching for five years.</p> <p>TB: I have taught for a total number of six years, of which my first year of teaching was at the private school and the rest were at the government school.</p>	<p>Teachers' experience and qualifications</p> <p>Teachers' understanding of the term DI</p> <p>Teachers' implementation of DI.</p>
2. How many years have you been teaching in the Junior Primary?	<p>TA: I started teaching in Junior Primary phase since 2017 up to date (2020) which makes a total of four years.</p> <p>TB: I have been a Junior Primary teacher for all my years of teaching, ever since I started teaching I taught in Junior Primary which is about six years now</p>	
3. How many years have you been teaching in Grade 2?	<p>TA: I have been teaching in grade two for three years because the first year that I taught in Junior Primary Phase I taught grade one.</p> <p>TB: My first year of teaching was pre grade at the private school as I have mentioned earlier, I taught at grade 3 and moved to grade 2 where I taught about 4 years.</p>	
4. What is your highest professional qualification?	<p>TA: I obtained my teaching diploma in Junior Primary at University of Namibia last year (2019).</p>	

	TB: I obtained my teaching diploma in Junior Primary.	
5. Have you heard of the term ‘differentiated instruction’? What, in your opinion, does it mean?	<p>TA: Differentiated instruction, to my understanding is, is a teaching approach whereby a teacher includes all the learners in the lesson to cater for all their learning needs, looking at their interests, and their preferred ways of learning.</p> <p>TB: I understand that differentiated instruction is a teaching approach whereby the teacher uses different strategies or let me say teaching methods to cater for all learners’ learning needs in class regardless of their learning abilities I also think that it is part of the Inclusive Education. I believe that this style or approach improves the performance of our learners in a way because all learners get to be included and benefit from the lesson.</p>	
6. Can you give me an example (or examples) of times when you have differentiated the instruction in your own class?	<p>TA: When I teach reading comprehension in my class, I use the same story but I differentiate the activities that I give to the learners, we can have the same story for all the learners in the class but the activities I will use to examine the learners it will be differ depending on interests and their capabilities.</p> <p>TB: In my class, I had a lesson on story reading, I firstly group learners into different groups, mix learners according to their levels of abilities and understanding, in</p>	

	<p>this regard I am relation to Blooms Taxonomy whereby my questioning will be at different levels of the learners' understandings.</p>	
<p>7. Describe a lesson were you have taught in which you used DI?</p>	<p>TA: One of the lessons that I can remember that I used differentiated instruction it was in Mathematics lesson whereby; the topic was doubling. I gave multiples ways on how learners can double numbers to get the correct answers. For example, by multiply a given number by two or adding the same number as the given number, when I gave the activity I instructed each learner to answer depending on their preferred method that they think is easier for them to get the correct answer either by multiplying the number by two or adding the very same number as the given number.</p> <p>TB: I had a lesson in Environmental Studies where I was teaching on the types of transport , I had to use pictures , we went outside to see the types of transport in our surrounding thereafter we returned to class for a short video for learners who learn best when visualising pictures to learn. I gave activity with questions on different intervals.</p>	

APPENDIX 8: DAVID'S STORY

Father, Charles, Lucy and I went to the beach yesterday. We took our dinner and stayed all day. Father and Charles went out a little way from the shore in a boat and fished while Lucy and I gathered sea mosses. We took off our shoes and stockings and waded into the shallow water. We found such beautiful seaweeds. Some were purple, some pink and some brown. When they were spread out in the water the purple one looked like plumes and the brown ones like little trees.

Such a funny thing happened to Lucy. She slipped on a stone and down she went into the water. How we both laughed! But the wind and sun soon dried Lucy's dress.

APPENDIX 9: COMPREHENSION QUESTIONS FOR LESSON 1

28 July 2020

Learner's name:

Grade 2

English Second Language

Reading comprehension activity: read the story provided and answer the following questions.

1. What is the title of the story?

..... (1mark)

2. Where did father, Charles and Lucy go?

..... (1 mark)

3. What did they take before they go?

..... (1 mark)

4. What did they see at the beach?

..... (4 marks)

5. What happened to Lucy?

.....
.....
..... (2 marks)

6. Identify ant 2 proper nouns from the story.

..... (2 marks)

7. In which season did this event happen? (1 mark)

..... (1 mark)

APPENDIX 10: THE NEW MOBILE TEXT

Merry's husband bought her a new iPhone for her fiftieth birthday, something that she has been unwilling to buy for years. She loved her old mobile because, it was not complicated to use. For the first time in her life, to get a mobile phone that can take pictures, record videos, access internet, download the map, play music and send and receive messages using the latest app like WhatsApp'. Sadly, Merry has no idea on how to use all the features on her new mobile phone. She decided to sit down and read all the instructions, but she found them too difficult, she did not understand them. She read the instructions for the second time, but as before, nothing was still making sense. Merry's husband told her to ask a friend at work to show her how to use her new iPhone, but Merry did not want to ask for help. She hates the idea that her co-worker will think that she is not good at technology.

APPENDIX 11: COMPREHENSION QUESTIONS FOR LESSON 2

29 July 2020

English second language

Skill: Reading comprehension

Grade 2

Name:

Read the story and answer all the questions on the space provided.

1. What is the title of the story?

.....

2. What was Merry given on her birthday?

.....

3. How old is Merry?

.....

4. What Merry's problem was, with regards her iPhone?

.....

5. Did the instruction help her?

.....

6. Do you think Merry will ask for help? Explain your answer.

.....

7. Do you think it is necessary to have a phone? Why? Write a paragraph of 3 sentences.

.....

.....

.....

.....

.....

.....

.....

.....

8. Identify any 3 nouns from the story.

.....

.....

.....

29 July 2020

Animal

I am an animal. I bark when I see strange and dangerous things. I am a human's best friend, but I can bite them when they provoke me. I like milk, fresh meat and bones. I make cute little puppies. Sometimes I run around chasing cats and people who provoke me.

Read the short story and answer the following questions;

1. Which animal do you think is this?.....
2. What does the animal mentioned in the text like?.....
3. What baby animal is mentioned in the text?.....
4. What is your favourite animal and why?.....

APPENDIX 13: SPECIAL VISITOR AND LOST IN THE BUSH TEXTS FOR LESSON 3

Special visitor

One day Ms Simasiku came to visit our school. She is famous. We see her on television. We had to prepare for Ms Simasiku's visit. We tidied the school. We dressed smartly. We greeted Ms Simasiku politely. We sang a song for her. Ms Simasiku told us that she was in the Caprivi Region. She grew up on the farm, just like us. After school she helped her mom fetch water and feed the chickens. She always listened to the radio. Now she has her own programme on the radio. She also works for One Africa Television. She told us that we must study hard and try to do work that we love when are older. We sang the national anthem together. Then we said goodbye to Ms Simasiku.

Lost in the bush

Read the title of the story . Can you guess what the story is about?

Now read the story.

Mpho and Palesa are looking for firewood. Gift, their dog, sees something moving in the bush. Gift barks and runs towards it. Mpho and Palesa run after him. They run and run. Now they are lost and it is getting dark. It is going to rain. What are they going to do? They are looking for shelter. They see a cave across the stream .They have to cross the stream. Palesa crosses the stream. She walks on the flat stones. Then, Mpho crosses the stream. The rocks are wet and slippery. Oh no! He falls in. Mpho can't swim. Palesa runs to him. She holds out a branch. Mpho grabs the big branch. Palesa pulls him onto the land. Gift barks

and barks. A storm starts. There is thunder and lightning. They run to the cave. Mpho, Palesa and Gift entered the cave. It is dark and cold. They shiver with cold. They heard scary noises. They are frightened. Then they see torch lights. They hear voices that they know. It is their mom and dad and some friends. They have come to find Palesa, Mpho and Gift. Palesa and Mpho are very happy.

APPENDIX 14: SEQUENCE OF EVENTS TEXTS TITLED SPECIAL VISITOR AND LOST IN THE BUSH





Now they are lost. It is getting dark. It is going to rain. What are they going to do?



Mpho and Palesa are looking for firewood. Gift their dog, sees something move in the bush.



Palesa crosses the stream. She walks on flat stones.



Then Mpho crosses the stream. The rocks are slippery.



Mpho falls in. Mpho can't swim. Palesa helps him. She holds out a branch. Mpho grabs the big branch. Palesa pulls him onto the bank. The dog barks and barks.

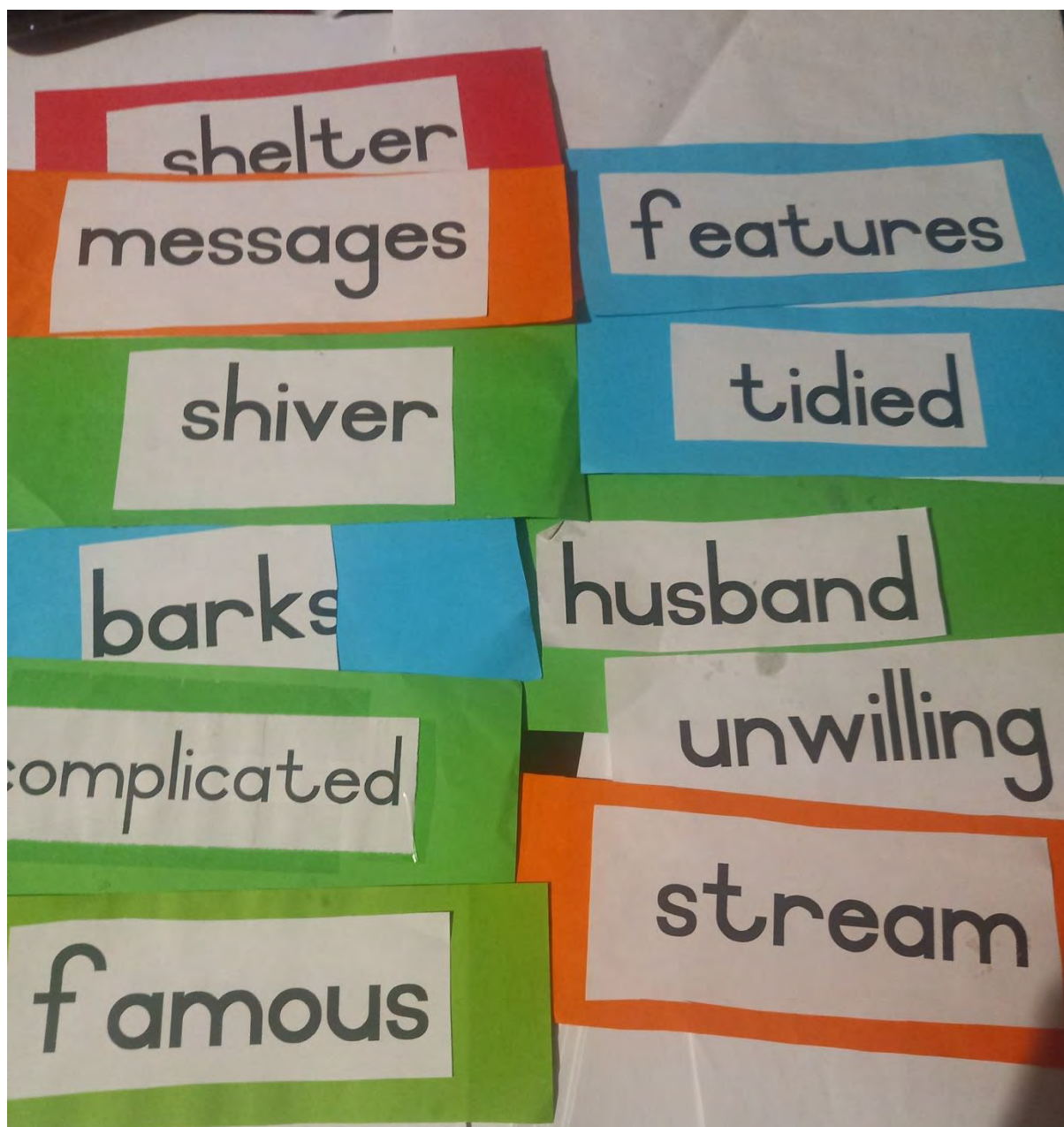


They hear scary noises. They are scared.

APPENDIX 15: THE NEW MOBILE

Merry's husband bought her a new iPhone for her fiftieth birthday, something that she has been unwilling to buy for years. She loved her old mobile because, it was not complicated to use. For the first time in her life, to get a mobile phone that can take pictures, record videos, access internet, download the map, play music and send and receive messages using the latest app like WhatsApp'. Sadly, Merry has no idea on how to use all the features on her new mobile phone. She decided to sit down and read all the instructions, but she found them too difficult, she did not understand them. She read the instructions for the second time, but as before, nothing was still making sense. Merry's husband told her to ask a friend at work to show her how to use her new iPhone, but Merry did not want to ask for help. She hates the idea that her co-worker will think that she is not good at technology.

APPENDIX 16: FLASHCARDS FOR READING THE VOCABULARY



APPENDIX 17: COMPREHENSION QUESTIONS FOR LESSON 1

28 July 2020

Learner's name:

Grade 2

English Second Language

Reading comprehension activity: read the story provided and answer the following questions.

1. What is the title of the story?

.....
..... (1mark)

2. Where did father, Charles and Lucy go?

..... (1 mark)

3. What did they take before they go?

.....(1mark)

4. What did they see at the beach?

.....
.....
.....(4 marks)

5. What happened to Lucy?

.....
.....
..... (2 marks)

6. Identify ant 2 proper nouns from the story.2 marks

.....
..... (2 marks)

7. In which season did this event happen? (1 mark)

..... (1 mark)

APPENDIX 18: RESPONSES FROM THE POST INTERVIEW

Questions	Response	Themes
<p>1. Now that the lesson study is complete and we have developed a variety of lessons that focus on differentiated instruction to teach reading comprehension, what is your understanding of differentiated instruction now?</p>	<p><i>Teacher A: the way I understand DI is a teaching strategy that the teachers to use to address and cater for all the learners' learning needs.</i></p> <p><i>Teacher B: My understanding on DI is method to teaching that includes many ways that the teacher can use to accommodate all the learners in the classroom regardless of their abilities and it is part of inclusive policy.</i></p>	<p>Teachers' understanding of DI</p> <ul style="list-style-type: none"> • Teaching strategy
<p>2. In your opinion, how do you think differentiated instruction could assist in developing learners' reading comprehension during reading lessons Second Language? Explain your answer.</p>	<p><i>Teacher A: Yes, I think it helped because learners' understanding of DI was reflected in the activities and their learning needs were identified and addressed.</i></p> <p><i>Teacher B: it was somehow helpful because all the mistakes were picked, and the teacher discussed them and corrected them.</i></p>	<p>Effectiveness of DI</p> <ul style="list-style-type: none"> • Activities addressed learning needs • Helpful in identifying mistakes
<p>3. What are the enabling and constraining factors you experience when using differentiated instruction to develop learners' reading skills in your class?</p>	<p><i>Teacher A: I will start off with the enabling factors; lesson reflections and the last two lessons assisted in the use of DI in reading comprehension.</i></p> <p><i>However, the time and learners who were struggling with reading and the difficult story which was used during the first lesson made it hard for the implementation to DI.</i></p>	<p>Enabling and constraining factors when using DI</p> <ul style="list-style-type: none"> • Lesson reflections • Use of simple language • Time • 'Struggling learners'

	<p><i>It was difficult because DI has so many things to consider.</i></p> <p><i>Teacher B: Vocabulary and simple language which were use and the mistakes which were identified by the teachers and attended too made the reading comprehension lesson very successful.</i></p> <p><i>The challenges that I picked were time management and the learners who cannot read even simple words made the lesson complicated.</i></p>	
4. What is your understanding of LS?	<p><i>Teacher A: Lesson Study is a process whereby the teachers plan together, teach, observe and focus on that one lesson to try to improve learners ' performance or teaching and learning.</i></p> <p><i>Teacher B; Lesson study is when a group of teacher come together, plan a lesson, teach it together, observe it and collect all the mistakes and make the correction by teaching it over again until the basic competence is achieved.</i></p>	<p>Teachers' understanding of LS</p> <ul style="list-style-type: none"> • Planning together to improve teaching and learning • Collaboration • Plan, act, reflect • Identify mistakes and replan
5. How did you find the LS process?	<p><i>Teacher A: It was good practice because we supported each other but it is time consuming.</i></p> <p><i>Teacher B: it was very interesting because I learned from my colleagues.</i></p>	<p>Effectiveness of LS</p> <ul style="list-style-type: none"> • Support each other • Learned from colleagues • Time consuming

<p>6. What are the enabling and constraining factors related to LS?</p>	<p><i>Teacher A: It was time consuming and too many debates.</i></p> <p><i>What enabled the lesson were discussions, the discussion were helpful and since my fellow teachers have massive experience it made it possible to assist me to improve my way of teaching reading.</i></p> <p><i>Teacher B: I found the discussion were too long. The good thing is that I learned from my colleagues and I feel confident about teaching reading through DI after this exercise.</i></p>	<p>Enabling and constraining factors for LS</p> <ul style="list-style-type: none"> • Discussions with colleagues • Learned from my colleagues • Confidence • Time consuming • Discussions were long
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