

**GROUP INVESTIGATION:
A TEACHING APPROACH FOR LIFE ORIENTATION IN SELECTED
NORTHERN CAPE SECONDARY SCHOOLS**

by

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UITGESOEKTE SEKONDÊRE SKOLE IN DIE NOORD-KAAP**

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Group Investigation: A Teaching Approach for Life Orientation in selected Northern Cape Secondary Schools.

I declare that the above dissertation is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I have submitted the dissertation to originality checking software and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at UNISA for another qualification or at any other higher education institution.



Signature of candidate

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SUPERVISOR'S STATEMENT

This dissertation was submitted with my approval.



Dr A.S. Mawela

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Date

DEDICATION

This study is dedicated to my late parents,

Joseph Lie Seherrie and Sophie Seherrie,

for the values they have instilled in me

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ABSTRACT

The main aim of this study was to explore the extent to which teachers use group investigation as a teaching approach for Life Orientation in selected secondary schools in the Northern Cape Province in South Africa. Group investigation (GI) as a cooperative learning teaching approach is based on the philosophical principles of John Dewey who believed that schools had the responsibility of capturing learners' interests, to expand and develop their horizons and to assist them in responding appropriately to new ideas and influences. Group investigation, a particular cooperative learning strategy, is based on the pragmatic paradigm that suggests that learners construct and apply knowledge as they interact with one another in a teacher-learner environment.

This study was adopted in a concurrent triangulation mixed methods research design to be conducted concurrently. Quantitative and qualitative data were collected and analysed separately but simultaneously, the findings converged in the conclusion in order to respond to the research question. Convenient and purposive sampling was employed to select teachers and learners as participants in this study. Data were collected in the social setting where teachers employed group investigation as a teaching strategy with learners in cooperative working groups participating in learner-centred activities. The researcher used face-to-face interviews, focus group interviews, classroom observations as well as document analysis to collect data. The findings of this study revealed that teachers tend to display adequate content and pedagogical knowledge for the teaching of Life Orientation. However, the findings established that there is a need for novice teacher development in the interpretation and application of the content. Furthermore, group investigation has indicated that learners developed group skills easily, learn to work cooperatively in groups and that learners can depend on each other for the groups' success. This study recommends that group investigation as a teaching approach be incorporated in the Life Orientation curriculum and that this needs to be shown in the lesson planning of teachers. The importance in the body of knowledge regarding teaching approaches and the academic value of the subject, Life Orientation as a fundamental subject, is indispensable within the FET curriculum.

Key words: Life Orientation, teaching and learning, learner-centred approach, cooperative learning, group investigation, benefits, challenges

OPSOMMING

Die hoofdoel van hierdie studie was om te bepaal in watter mate onderwysers groeponderszoek as 'n onderrigbenadering vir Lewensoriëntering in uitgesoekte sekondêre skole in die Noord-Kaapprovinsie gebruik. Groeponderszoek as 'n koöperatiewe leer- en onderrigbenadering is gegrond op die filosofiese beginsels van John Dewey, wat geglo het dat skole die verantwoordelikheid het om leerders se belange te akkommodeer, om hul horisonne te verbreed en te ontwikkel en om hulle by te staan om gepas op nuwe idees en invloede te reageer. Groeponderszoek, 'n spesifieke koöperatieweleerstrategie, is gegrond op die sosiaal-interpretivistiese-konstruktivistiese paradigma wat suggereer dat leerders kennis konstrueer en toepas wanneer hulle met mekaar interaksie het in 'n onderwyser-leerder-omgewing.

Hierdie studie is in 'n konkurrente triangulerings- gemengdemetodenavorsingsontwerp aangepak – om samelopend maar afsonderlik uitgevoer te word. Kwantitatiewe en kwalitatiewe data is afsonderlik ingesamel en ontleed, maar terselfdertyd is die resultate gekonvergeer in die gevolgtrekking om die navorsingsvraag te beantwoord. Gerieflikheid- en doelbewuste steekproefneming is gebruik om onderwysers en leerders te kies om aan die navorsing deel te neem. Data is ingesamel in die sosiale situasie waar onderwysers groeponderszoeke as 'n onderrigstrategie aangewend het, met leerders wat in koöperatiewe werkgroepe aan leergesentreerde aktiwiteite deelneem. Die navorser het persoonlike onderhoude, fokusgroeponderhoude, klaskamerwaarnemings sowel as dokumentontleding gebruik om data in te samel. Die bevindings van die studie het getoon dat onderwysers geneig is om voldoende inhoud en pedagogiese kennis vir die onderrig van Lewensoriëntering te toon, terwyl daar 'n behoefte aan die ontwikkeling van nuweling-onderwysers se interpretasie en toepassing van die inhoud is. Daarbenewens het die groeponderszoeke ook gewys dat leerders maklik groepvaardighede ontwikkel, leer om koöperatief in groepe te werk, en dat hulle op mekaar kan staatmaak vir die sukses van die groep. Hierdie studie beveel aan dat groeponderszoeke as 'n onderrigstrategie in die Lewensorientering kurrikulum geïnkorporeer moet word en dat dit in die lesbeplanning van die onderwysers aangedui moet word. Die belangrikheid van kennis met verwysing na die onderrigstrategieë en die akademiese waarde van die vak, is Lewensorientering as 'n fundamentele vak onvervangbaar binne die VOO kurrikulum.

Sleutelwoorde: Lewensoriëntering, onderrig en leer, leergesentreerde, koöperatiewe leer, groeponderzoek, voordele, uitdagings

ISISHWANKATHELO

Injongo ephambili yesi sifundo kukuqwalasela ukuba ootitshala bayisebenzisa kangakanani indlela yokufundisa yophando lweqela kwizifundo ngobomi ekuthiwa yi *Life Orientation* kwizikolo zesekondari ezikhethiweyo kwiPhondo loMntla Koloni. Uphando lweqela, njengecebo lokufunda nokufundisa ngokubambisana lusekelwe kwiinqobo zefilosofi kaJohn Dewey, owayekhohlelwa ekubeni izikolo zinoxanduva lokudlwengula umdla wabafundi, zinabise amathuba olwazi, zibancedise ekusabeleni ngokufanelekileyo kwizimvo neempembelelo ezintsha. Uphando lweqela, nolulicebo lobulumko lokusebenza ngokubambisana, lusekelwe kwiingcinga zokwakha intsingiselo ngokusebenzisana, le nto kuthiwa yi *social interpretivist-constructivist paradigm* ngolwimi lwesiNgesi. Ezi nginga zithi abafundi bazakhela ulwazi, balusebenzise xa besebenzisana kuloo ndawo bafundela kuyo.

Esi sifundo siqhutywe ngokusebenzisa iindlela zophando ezixubeneyo neziqhutywa ngaxeshanye lo gama zahlukene. Kuqokelelwe, kwaphengululwa idatha ngokwahlukeneyo ngokobuninzi bayo ngaxeshanye nangokokucinga nzulu ngayo, okufunyanisiweyo kwadityaniswa esiphelweni ngenjongo yokuphendula umbuzo wophando. Isampulu yophando yakhethwa ngononophelo nangendlela enokusebenza lula xa kwakukhethwa ootitshala nabafundi abaza kuba ngabathathi nxaxheba kwesi sifundo. Idatha yaqokelelwa kwimeko yezentlalo apho ootitshala babesebenzisa uphando lweqela njengecebo lokufundisa, apho abafundi babesebenza ngokwamaqela ancedisanayo kwimisebenzi yezifundo zabo. Umphandi waqhuba udliwano ndlebe nomntu ngamnye, udliwano ndlebe namaqela achaphazelekayo, waqwalasela okwenzeka eklasini, waphengulula nemibhalo ekhoyo xa wayeqokelela idatha. Okufunyaniswe kwesi sifundo kwadiza ukuba ootitshala babonisa ulwazi olwaneleyo ngeziqulatho neendlela zokufundisa izifundo ngobomi okanye i *Life Orientation*, lo gama sikho sona isidingo sokuphuhlisa izakhono zootitshala abatsha ekutolikeneni nasekusebenzeni ngeziqulatho zezi zifundo. Ngaphezu koko, uphando lweqela lubonise ukuba izakhono zabafundi zokusebenza ngamaqela ziphuhla lula, bafunda ukusebenzisana bengamaqela kwaye bafunda ukwazi ukuxhomekeka omnye komnye ukuze iqela liphumelele.

Amagama aphambili: Izifundo ngobomi/i*Life Orientation*, ukufundisa nokufunda, okujolise kumfundi, ukufunda ngokubambisana, uphando lweqela, uncedo, imingeni

ACRONYMS

ACE	Advanced Certificate in Education
ATP	Annual Teaching Plan
BEd.	Bachelor of Education
BSc.	Bachelor of Science
C2005	Curriculum 2005
CAPS	Curriculum and Assessment Policy Statement
CAT	Common Assessment Task
CIRC	Cooperative Integrated Reading and Composition
CL	Cooperative learning
CoP	Communities of Practice
DBE	Department of Basic Education
DoE	Department of Education
EMIS	Education Management Information System
FET	Further Education and Training
GI	Group Investigations
GT	Grounded Theory
GPK	General Pedagogical Knowledge
HEI	Higher Education Institution
HoD	Head of Departments
HEI	Higher Education Institution
INTO	Irish National Teachers Organisation
LO	Life Orientation
LT	Learning Together
LTSM	Learning and Teaching Support Material
NCDoe	Northern Cape Department of Education
NCS	National Curriculum Statement
NNSSF	National Norms and Standards for School Funding
NPA	National Protocol of Assessment
NPPPPR	National Policy Pertaining to the Programme and Promotion Requirements
NSC	National Senior Certificate
OBE	Outcomes-based Education

PBE	Placed-Based Education
PCK	Pedagogical Content Knowledge
PED	Provincial Education Department
PET	Physical Education Task
PoA	Programme of Assessment
RNCS	Revised National Curriculum Statement
SBA	School-Based Assessment
SCCTF	Social-Cultural Constructivist Theoretical Framework
SCK	Subject Content Knowledge
SGB	School Governing Body
SMK	Subject Matter Knowledge
SMT	School Management Team
SSCT	Socio-Cultural Constructivist Theory
STAD	Student Teams-Achievement Divisions
STL	Student Team Learning
TAI	Team Assisted Individualisation
TGT	Teams-Games-Tournaments
US	United States
ZPD	Zone of Proximal Development

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CHAPTER ONE

INTRODUCTION AND OVERVIEW

1.1 INTRODUCTION

The Department of Basic Education (DBE) in South Africa began the process of restructuring the entire education system. During 1994, a number of subjects were introduced into the curriculum. Life Orientation (LO) was included as one such subject, and introduced as a compulsory subject across the grades. The reason for this new subject was to change the mind-set of learners who were accustomed to rote learning during the traditional teaching approach and to introduce a skills-orientated curriculum whereby learners can learn independently and successfully instil values and attitudes (Rooth, 2005:10).

Prior to 1994, the subject Life Orientation was taught mainly as a way of giving learners family guidance, and health education since it was a non-examinable subject. The focus of Life Orientation was to alert learners about various careers, health and personal well-being to become a responsible citizen in the community and society at large; however, the performance of learners in further education and training phase was seen as satisfactorily equipping learners. Life Orientation was viewed as a subject that aimed at guiding and preparing learners to respond appropriately to life's responsibilities and opportunities and equipping learners to interact optimally on a personal, psychological, cognitive, motor, physical, moral, spiritual, cultural and socio-economic level (DBE, 2011a:8). However, the way in which it was to be taught, aimed at producing learners who could participate critically and creatively in problem solving scenarios, make informed decisions and were also expected to acquire knowledge and skills in organising, responsible in managing their activities, and could critically evaluate information (DBE, 2011a:5).

The above outlined expectations for learners, required rigorous teacher training on relevant teaching approaches and it is the researcher's view that most teachers were not sufficiently trained in teaching Life Orientation through a new approach, a view asserted by Mosia (2011:3) who confirms that Life Orientation teachers were lacking proper training. It is noteworthy that in this study for successful curriculum

implementation, teachers need to have a broad, an in-depth pedagogical content knowledge to equip themselves to deliver good teaching results. In order to achieving positive learning outcomes, it has become a pre-requisite for teachers to demonstrate their pedagogical subject knowledge successfully for effective teaching (Gama, 2015: Shulman, 1986:8).

This study is intended to explore the extent to which teachers use group investigation as a teaching approach for Life Orientation in secondary schools in the Pixley Ka Seme district of the Northern Cape Province of South Africa. In order to explore further on the group investigation as a teaching approach, the researcher conducted a review of the literature focusing on what constitutes the subject of Life Orientation, the benefits of group investigation as a cooperative teaching and learning approach to Life Orientation, challenges of group investigation as a cooperative teaching and learning approach of Life Orientation, teacher's pedagogical knowledge of group investigation as a cooperative teaching and learning approach of Life Orientation and strategies to enhance secondary teachers' proficiency regarding the use of group investigation as teaching approach to Life Orientation.

1.2 BACKGROUND TO THE STUDY

Since 2006 to 2008, the implementation of Life Orientation from Grades 10 to 12 was gradually introduced with the first Grade 10 group of learners in 2006 and also the first in Grade 12 level in 2008. The rationale for introducing Life Orientation as a fundamental subject focused on changing from a theory-driven approach to a skills-orientated approach to teaching the subject. With this in mind, was to change in the mind-set to develop the South African youth to become effective and productive citizens with strengthened values. Life Orientation, as a school subject, is not known abroad, although the term Life Skills is generally the term that is acknowledged internationally and is also commonly used in the South African Curriculum (DBE, 2014:87).

Life Orientation in the South African context, was supposed to address the backlog of skills, knowledge and attitudes in society. The core function of Life Orientation is to equip the South African youth with skills, knowledge and values aimed at creating

opportunities where learners can engage in problem-solving, make informed decisions and become meaningful and productive citizens in society. Learners were supposed to apply these skills and knowledge in their real daily-life experiences and thereby contribute to a just and social democratic South Africa within a global context (DBE, 2011a:8).

This study is intended to explore the extent to which teachers make use of group investigation as a teaching approach for Life Orientation in selected secondary schools in the Northern Cape Province South Africa. The South African Life Orientation Curriculum (DBE: 2011a:27) stipulates that approaches to teaching must be of such nature to address the particular construction of knowledge, because learners as unique human beings enter the learning environment with their own interests, set of beliefs, attitudes and values. Therefore, the teaching and learning of Life Orientation should include different teaching and learning approaches and a variety of forms of assessment where learners are challenged in their cognitive abilities. The Curriculum and Assessment Policy Statements (CAPS) (DBE, 2011a:27) indicate specific tasks to which learners should be exposed, with specific reference to Grades 10 to 12. Projects, viewed as out-of-class learner-centred activities, are implemented from Grades 4 to 12. Learners are faced with completing tasks related to real natural settings, a learning experience they experience in well-known familiar contexts. The Curriculum and Assessment Policy Statement alluded that these tasks must be completed across the curriculum and therefore, a variety forms of assessment must be covered (DBE, 2011a:27; DBE, 2014:6).

1.2.1 Benefits of Group Investigation as a Cooperative Teaching and Learning Approach to Life Orientation

Group investigation allows learners to investigate various sub-topics of a given topic and in these small groups, learn to interpret, examine and analyse a phenomenon at hand (Sharan & Sharan, 1992:1). The use of group investigation has revealed some advantages. Adiansyah and Muh.Amin (2017:1) determined the effectiveness of group investigation and scientific approach to the thinking ability of learners of a Grade 11 class in Indonesia. The results of the test indicated that treatment (group investigation) given to the experimental group has successfully improved the learners' critical thinking skills. When learners are involved in group inquiry and are challenged with an

academic problem, learners' cognitive abilities, critical thinking and decision-making skills became essential elements required in group investigation as a cooperative teaching approach. Results were evident from Mitchell, Montgomery, Holder, and Stuart (2008:392) when they examined the literature on group investigation. The advantage for learners who participated in group work activities was that they develop a value system while learning. Furthermore, the benefits were not only for learners, as teachers also gained from implementing cooperative learning methods, specifically group investigation, in their classroom. Firstly, lesson planning was highlighted as one of the noticeable improvements that occurred, and secondly, there was time to observe how learners interact and have had an opportunity to assist individual groups, which in turn, enabled the teacher to attend to each learner in the classroom (Masoabi, 2015:95).

1.2.2 Challenges of Group Investigation as a Cooperative Teaching and Learning Approach to Life Orientation in South Africa

Baloche and Brody (2017:1) highlighted three aspects against cooperative learning strategy in schools, *viz-a-viz* efficacy, theoretical relevance and policy support. The authors asserted that this strategy was not generally accepted and implemented as a teaching practice at schools. Similar to the assertion of Baloche and Brody, Ghaith (2018: 400) attested that effective implementation of cooperative learning in particular, remains a challenge for a positive outcome. The researcher supported the view of Van Wyk (2007) that posits that implementing group work as a teaching and learning strategy, where learners interact in small groups, is not a once-off, but a continuous process. In order to gain sufficient knowledge on the correct implementation of cooperative learning, teachers must continuously and regularly practice cooperative learning procedures for successful implementation. As teachers do not have the necessary knowledge and teaching skills to teach group investigation, this lack in confidence means that they tend to use known strategies which they are accustomed to using. Inadequate preparation and structuring of cooperative learning leads to the 'free-rider' effect, whereby some members do not contribute to the group's achievement of group goals, as there tends to be little or no evidence on assessing the individual's accountability. This could be evident in poorly structured projects where a group has done one thing and ignored the other. To avoid this challenge,

each member's role should be clearly stipulated, evident and assessable so that the teacher can intervene appropriately in a helping and encouraging manner. If such a challenge is not cultivated in time, it could lead to undesired disruptive behaviour during group sessions (Masoabi, 2015:95).

1.2.3 Teacher's Pedagogical Knowledge of Group Investigation as a Cooperative Teaching and Learning Approach to Life Orientation in Pixley Ka Seme

Teachers' roles are more than just to disseminate knowledge, as apparent in the traditional teaching approach. Teachers of the 21st century must possess a good in-depth subject knowledge to respond to learners' challenges and requires them to be skilful in applying various forms of teaching approaches to easily and effectively produce good results. As a result, teachers of today should have the ability to broaden the scope and depth of learners' understanding in constructing knowledge in a socially constructed environment (Kleickmann, Richler, Kunte, Elsne, Besser, Krauss and Baumert, 2013:2; Krauss, Kunter, Brunner & Baumert, 2008:717). Teachers with limited subject content knowledge of the subjects they teach, would find it difficult to effectively respond to learners' concerns and to clarify any misconceptions in their understanding of the subject content and cognitive challenging learning situations (Gama, 2015:41). Olfos, Goldrine and Estrella (2014:915-918) continued to look at pedagogical content knowledge, as put forward by Shulman (1986:8), as underpinning teaching strategies. Taking into account teacher knowledge, the authors affirmed and differentiate between subject content knowledge (SCK), pedagogical content knowledge (PCK), and general pedagogical knowledge (GPK). Kleickmann *et al.* (2013: 2) asserted that whenever teacher's knowledge can be identified, it will enhance successful teaching and learning strategies and positive learning outcomes.

Every teacher must have an in-depth understanding of the content knowledge to teach the subject matter in such a way that to enable learners have a clear understanding of the new information. This in-depth understanding must also include different teaching strategies and approaches to be employed to accommodate learners in a diverse teaching setting (Kleickmann *et al.*, 2013:2; Shulman, 1986:9). The ideal was to clarify any misconceptions and misunderstandings and to improve learners' knowledge and

understanding on the new subject content. In addition, it was evident that a symbiotic relationship exists between subject content knowledge and pedagogical content knowledge.

From the discussion above, it emerges that the teacher must have an understanding of the subject content in order to know how to deliver it effectively to the learners. Furthermore, it has become so important for Life Orientation teachers to have a broad repertoire of teaching approaches. Zulu (2016:5) has voiced concern at the poor performance of learners in mastering content knowledge and at learners' weak competence levels when it comes to demonstrating skills, attitudes and values which implies that teachers find it difficult to interpret and analyse content from the different topics, as stipulated in CAPS. However, from the researcher's observation some of these challenges were on-site at school level. It was the researcher's view that although Life Orientation teachers are able to apply some cooperative learning approaches, group investigation as a teaching approach was seldom applied in the Life Orientation classroom. Consequently, inadequate preparation and planning of group investigation activities may end up with learners relying on other and not contributing to the success of the group and group goals in particular. This result in little or no evidence on assessing the individual's accountability and also because of roles of group members that have to be clearly indicated (Masoabi, 2015). Therefore, this study intended to explore group investigation as a teaching approach to Life Orientation in selected Northern Cape secondary schools.

1.3 THE PROBLEM STATEMENT

Within the South African context, there have been a number of changes to the approach to education since 1994, with the National Department of Education (NDE) introducing different curriculum philosophies over the years. The Department of Education (DoE) firstly started with Curriculum 2005, also known as (C2005), which incorporated Outcome-Based-Education (OBE). After a major review, the National Curriculum Statements (NCS) of 2002 was implemented followed by curriculum reviews during 2005 and 2009, resulting in the Revised National Curriculum Statement (RNCS). Finally, the Curriculum and Assessment Policy Statements (CAPS) for all approved subjects in conjunction with the National policy Pertaining to the Programme and Promotion Requirements (NPPPPR) of the National Curriculum Statement (Grade

R-12); and the National Protocol for Assessment (NPA) (Grade R-12) taking effect in January 2012.

In the view of what has been established above, the Curriculum and Assessment Policy Statements (DBE, 2011a: 25) states that teachers should guard against a skills-based subject becoming too theory-driven. Therefore, learners must continuously be exposed to life-skills opportunities which can be executed in real-life situations. The Curriculum and Assessment Policy articulates the importance of knowledge, skills and values within the context of the South African schools. The crux of the South African curriculum aims to produce learners who can critically analyse and evaluate information, acquire problem-solving skills, independently take informed decisions and organise themselves responsibly (DBE, 2011a:5). One approach which can be used to promote life skills, values and knowledge to learners is that of group investigation.

Shimazoe and Aldrich (2010:53) paint a clearer picture on the limitations of cooperative learning, indicating that learners could argue that they will not participate in these activities because of slower learners who could be a hold-up in terms of performance. Slower learners might feel that they are not worthy to be part of a team and do not get the attention of the more responsive teammates. However, when learners are evaluated for participation and their contribution to the group, they might feel that they are competing against each other. The fact that teachers are not knowledgeable on how to overcome the limitations faced in classrooms, would counteract effective implementation of this approach and therefore contribute to the problem at hand. When teachers demonstrate lack of knowledge and skills, learners may become uncomfortable not being told precisely what to know and to do by the teacher, or they may not be prepared for the types of evaluation group investigation entails, and rather prefer to be evaluated with the usual tests and examinations (Zingaro, 2008). Mitchell *et al.* (2008: 393) pointed out that, for teachers to successfully implement the group investigation model, they have to overcome challenges. Firstly, they must guard against potential failure when learners investigate a specific task and secondly, they must encourage learners to consistently be involved in group work in order to gain experience which help them to achieve a common learning goal.

Cooperative working groups acquired its roots in the group investigation (GI) model of cooperative learning, which is a teaching methodology that implements long-term projects involving student problem-solving. Group Investigations is comfortably embedded in Life Orientation as a school subject, which deals with school-based assessments such as projects, source-based tasks, written assignments, research, and portfolios (DBE, 2011a:27). According to Lewin and Thelen (1960, cited in Sharan & Sharan, 1992:17), group investigation lent itself to democratic participation of knowledge construction. Group investigation, as a teaching approach, enabled learners to become interactive in the classroom, which leads to positive interdependence and individual responsibility during social interaction in group work (Ahsanah, 2015:57). According to Sharan and Sharan (1992:97-113) group investigation, as a technique, is implemented in a number of steps, as illustrated in Figure 1.1 below.

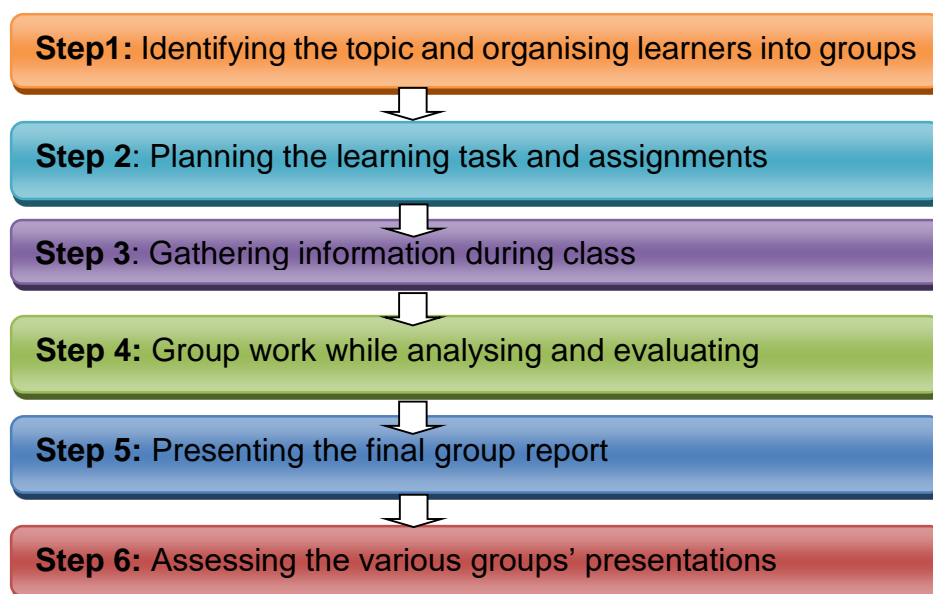


Figure 1.1: Steps in the implementation of group investigation

Group investigation as cooperative teaching and learning approach to Life Orientation requires teaching the learners how to access knowledge, how to approach a problem and how to find solutions rather than simply loading the learner's with massive amounts of information (Ahsanah, 2015:57). The significance of this research emanated from teachers' insufficient knowledge of group investigation as a teaching approach in secondary schools in the Northern Cape Province. In a broader context, Zingaro (2008:6) alluded that teacher training does not adequately prepare them

[teachers] for effective implementation of group investigation, but mentioned that substantial training is needed. This study resulted in improving learners' achievement and motivation. This teaching method also illustrates the improvement of learners' critical thinking skills (Adiansyah & Muh.Amin, 2017). Locally, various studies highlighted the importance of the self-concept of the Life Orientation teacher as well as the role that teacher's classroom facilitation skills, knowledge of alternative instructional strategies and self-efficacy plays (Nzeleni, 2015; Jonck & Swanepoel, 2015, Diale *et al.*, 2014; Magano & Gouws, 2011). The researcher argues that teachers were not trained for their role as facilitators in the newly-required teaching approach. In short, no evidence on training of life orientation teachers on group investigation as a teaching and learning approach could be found. The effective application of group investigation as a teaching-learning approach, provides an authentic means to cross and strengthen the boundaries between teaching skills needed by the teacher and the potential of learners. Van Wyk (2007:151) postulated that new teaching methods have become essential features in delivering of content and by doing so, will promote effective teaching and learning in the classroom.

This research has explored the extent to which teachers used group investigation as a teaching approach for Life Orientation in selected secondary schools in the Pixley Ka Seme district of the Northern Cape Province.

1.4 PEDAGOGICAL SIGNIFICANCE AND POTENTIAL CONTRIBUTION OF THE STUDY

This study sought to explore the use of group investigation as a teaching approach to Life Orientation in selected secondary schools' settings in the Northern Cape Province. Life Orientation focuses on all spheres of development of the learner in order to become productive and effective citizens in the community and society at large. Learners' own views concerning their context, are central to understanding how they are engaged with different levels of their social framework, learning from their own experiences and from teammates in an environment where meaning is socially constructed. Sharan and Sharan (1992:1) asserted that Group Investigation was successfully used with the topic at hand.

The value of this study is to contribute to the body of knowledge through the development of a group investigation teaching-learning approach in South African schools. Secondly, it is to contribute to the teaching profession by improving classroom practice in Life Orientation towards achieving good academic performance and developing social skills (DBE, 2011a:4) and finally, to offer recommendations toward professional development training of teachers in group investigation as a cooperative teaching-learning approach in South African secondary schools.

1.5 RESEARCH QUESTIONS

Against the background and the problem statement outlined above, the main research question is formulated as follows: *To what extent do teachers make use of group investigation as a teaching approach to Life Orientation in selected secondary schools in the Northern Cape Province?*

The following specific sub-questions were formulated in order to explore the main research question further

1. What does the scholarly literature on different teaching and learning approaches to Life Orientation in South African context entail?
2. How do the theories foregrounding group investigation enhance a cooperative teaching and learning approach to Life Orientation?
3. Which pedagogical Life Orientation content knowledge and skills should secondary teachers have in planning group investigation as a cooperative teaching and learning approach?
4. What are the benefits and challenges of group investigation as a cooperative teaching and learning approach to Life Orientation?
5. Which strategies could be used to improve teacher proficiency regarding group investigation as a cooperative teaching and learning approach to Life Orientation?

1.6 AIMS AND OBJECTIVES OF THE STUDY

1.6.1 Aims of the Study

The overarching aims of this study are to explore the use of group investigation as a teaching approach to Life Orientation in selected secondary schools in the Northern Cape Province. It also aims at identifying strategies to empower teachers' proficiency regarding the employment of group investigation as a cooperative teaching-learning approach to Life Orientation of secondary teachers.

It also aims to establish the benefits and challenges faced by secondary teachers in planning for group investigation as a cooperative teaching and learning approach to Life Orientation in secondary schools. The importance of acquiring relevant information regarding this study may inform the South African Department of Basic education on cultivating appropriate professional development in planning group investigation as a cooperative teaching and learning approach to Life Orientation in secondary schools. The data can also inform further research needs as far as group investigation as a cooperative teaching and learning approach to Life Orientation in secondary schools is concerned.

1.6.2 Objectives of the Study

In order to achieve the aim of the study, the following objectives will be addressed:

- To reflect critically on the scholarly literature on different teaching and learning approaches to Life Orientation in South African context;
- To explore how the theories foregrounding group investigation enhance a cooperative teaching and learning approach to Life Orientation;
- To find out what pedagogical Life Orientation content knowledge and skills secondary teachers need in the planning of group investigation as a cooperative teaching and learning approach;
- To establish the benefits and challenges of group investigation as a cooperative teaching and learning approach to Life Orientation; and
- To determine strategies/framework to improve teachers' proficiency regarding group investigation as a cooperative teaching and learning approach to Life Orientation.

1.7 THEORETICAL FRAMEWORK

The theoretical framework is regarded as the 'blueprint' for the entire research process of inquiry. It guides, supports and lays the foundation of the philosophical, epistemological, methodological and analytical approach of the study as a whole. As Imenda (2014:189) proposed, the theoretical framework must be the compass of the researcher to offer an explanation of an event, or to clarify a particular phenomenon or the research problem. The researcher must have a clear line of enquiry on the theoretical orientation that could influence the rest of the study. The theoretical framework will be informed by the application of theoretical triangulation with multi-method strategies to promote validity and reliability of the investigation. In order to apply theoretical and methodological triangulation, the researcher has used the following five supporting theories to study one phenomenon in such a way that the theories complement each other and include communities of practice, situated learning theory, place-based learning theory, cooperative learning theory and the socio-cultural learning theory.

1.7.1 Communities of Practice Theory

The term communities of practice (CoP) was pioneered by theorists like Jean Lave and Etienne Wenger during the period of 1991. The community of practice theory as a construct, finds its roots in the socio-cultural theories of learning and development. A very contentious issue is raised by the author and posited that social interaction forms the main ingredient for human development within a cultural or historical context, but mediated with cultural tools and signs (Vygotsky, 1978). Therefore, social-cultural theories of learning regard community as the most important part in the development process. In relation to this, people in an identified area who have a common idea on how to develop themselves personally and professionally, can generate knowledge which can be used to their own advantage. An important feature of a community is when a group shares a common goal, they are most likely to share the same interest. Additionally, Li, Grimshaw, Nielsen, Judd, Coyte and Graham, (2009:3) expanded on the work of Wenger, McDermott and Snyder (2002:4), who emphasise that the interpersonal relationship of members in a group, forms the foundation of the way in which they will perform their group task. However, all mentioned definitions share a common interest in sharing and equipping members with knowledge and skills.

Community of practice is also characterised by three features, namely domain, community and practice. In summation of community of practice, the group has to address the issues they are experiencing as a collective to share their own life experiences. In so doing, the less experienced ones can benefit from the wealth of knowledge brought to the pool by each member. Group investigation can help learners to learn from one another, intentionally or unintentionally. Employing the community of practice theory, learners can learn to interpret information and clarify their own ideas during a group investigation activity.

Communities of practice include core values as illustrated by Jimenez-Silva and Olsen (2012:341-343). These authors identified values, which reminds the researcher of the Constitution of the Republic of South Africa which elaborates on human diversity, safety and trust and explicitly indicates how important these values are with regards to teaching and learning. Knowledge can only be constructed when the teacher and learners are actively involved in sharing experiences in a socially constructed environment.

1.7.2 Situated Learning Theory

Situated learning was first developed by Brown, Collins and Duguid (1989:34) who argued that students were likely to learn more by actively participating in their learning domain. Situated learning, as the term indicates, is learning that occurs in a specific environment (Lave, 1998). Situated learning theory is based on the work of Vygotsky, Leontiev and Dewey and plays an important role in developing substance for this research. Brown *et al.* (1989:34) argued that effective knowledge construction will only occur when the physical and social milieu are interwoven within a specific context. Learning is also the learners' personal discovery of meaning and they must be able to take the newfound information and make it part of their own lives. The researcher opined that situated learning can be defined as learning, where learners construct knowledge in a desired learning environment and experience it in conjunction with others. However, this newfound information must become part of their own life.

Situated learning is known by some characteristics which underlines the importance of the theory in particular. One of the characteristics of situated learning is the

appropriate context for life experiences. This means that learners must be exposed to situations where they are in a position to gain knowledge from personal first-hand experiences. Therefore, topics for group investigation activities must be relevant to the life experience of learners and new knowledge will be developed and discovered by learners.

1.7.3 Placed-Based Learning Theory

The basic principles of placed-based-learning theory are particularly apparent in John Dewey's progressive education philosophy, which also emerged at the end of the 19th century, overlapping with other educational movements (Kleederman, 2009:27). Placed-based-learning theory refers to the place or context where learning should take place and also considers the culture and history in an integrated natural setting where knowledge can be constructed (Sobel, 2004:7). Dewey articulated the importance of instruction and subject matter to be what is "seen and felt and loved" by the learner. The researcher opined that it is important that schools become learning centres of the community where learners could identify needs aroused within the community. Learners would then be able to directly associate with this need, which means that the construction of new knowledge is based on real-life experiences within the community.

This fosters within learners interest and enthusiasm and ignites a positive behaviour to become involved. Dewey expatiated on the utilisation of 'life-terms', real-world objects and examples in the classroom as an important pedagogical tool to ensure a long-lasting understanding of the material. In addition, the learner should understand that the world is not stagnant and should be prepared to adapt to change. As previously mentioned, learners take on the responsibility to ensure group success, which implies that every learner comes with his/her own capabilities, interests and attitudes to the group and has a common goal, which is to ensure that the group achieves positive outcomes. Learners use the new subject matter to their advantage and managed the challenges they were experienced in real-life situations. Teachers simply needed to conscientise learners on the subject content which applies to their everyday life, an idea promoted by Smith (2002:3) who attested that in- and outside the classroom, the new subject content must assist the learners in facing the challenges posed by society.

Taking this discussion in account, reminded me as the researcher that teachers should improve their pedagogical content knowledge and skills in teaching Life Orientation when they are planning group investigation as a cooperative teaching and learning approach.

1.7.4 Cooperative Learning Theory

Cooperative learning has its roots in the work of John Dewey (1961) who believed that learners must be allowed to exercise their freedom and promote democracy in schools as well as good citizenship amongst learners. Indeed, Kurt Koffka, a gestalt psychologist, alleged that learners who participate in group work, learn to depend on each other to ensure that the group goals are achieved. However, groups are not static because every group member enters the group with their own contributions and unique characteristics.

To begin with, it could be noted that many scholars and researchers have attempted to investigate the concept of group learning as a cooperative learning and teaching approach (Tavakoli & Soltani, 2014; Johnson & Johnson, 2009). Cooperative learning strategy lends itself to small group activities for learners to meaningfully participate and understand the subject or context much better. Working cooperatively, has become an essential attribute for learners to be acquired and to be applied effectively in life after school. Nastasi and Clements (1991:110) also argued that whenever learners engaged in group work, the learning process become more structured and learners learn better in a group. Similar, learners have a common goal to achieve and that is the reason why this strategy of cooperative learning promotes social interaction.

To support the view that cooperative learning can work in Life Orientation classes, characteristics such as group goals, rewards where each member is made aware of the intended objectives of the group in order to complete tasks, are also evident. In short, when taking the former context into account, every member in the group should be able to contribute meaningfully and collaboratively, taking responsibility for the success in achieving of the group goal (Gagnon & Collay, 2006:105). Cooperative learning allows learners choice to determine what they would like to achieve at the end based on their prior learning and knowledge. The researcher asserted that this approach would assist in filling the gaps in learners' knowledge and understanding.

1.7.5 The Socio-Cultural Learning Theory

The socio-cultural-learning theory serves as the foundation for a majority of the research studies reviewed that evaluated the possible relationship between the instructional setting and learner performance. The socio-cultural-learning theory is based primarily upon the work of the Russian psychologist, Lev Vygotsky (1978:68), who highlighted the social process of development, and Piaget (1980:135), who believed that learners discovered learning on their own (Donald, Lazarus & Lolwana, 2010:52).

What was important to the researcher in line with the idea of Vygotsky's social process of development, was that learners learn best from one another. Therefore, in a socially constructed environment, learners should be actively involved in constructing knowledge and teaching methods should enhance the process of development. Vygotsky highlighted the important link between the teacher and the learner. Learners must be confident and be able to identify themselves with the teacher with regards to the behaviour and praxis. Therefore, they [learners] must work together to assist each other or socially interact with one another in order to achieve success collaboratively. Referring to the former, the researcher posited that the socio-cultural learning theory describes learning as a social, inter-personal and integrated process where every participating member mutually benefits from the learning environment.

Learning should be constructed within a social environment whereby the learner learns and the teacher teaches. This interaction allows for a teaching-learning conversation between the teacher and the learner. For the researcher, it was important that there is an interrelationship or interaction between the individual, the teacher and the environment. However, teacher should have had the ability to design group investigation activities of such a nature that it results in the creation of logical memory.

Social constructivist strategies are known to promote student-centred learning, where the teacher helps learners discover their own meaning instead of lecturing and controlling all classroom activities. Therefore, in any social environment, learners have developed problem-solving skills and will also be able to apply higher order thinking skills in a given context (Eun, 2008:139-140). Developmental processes are enhanced through learning, particularly when learners are socially and actively involved in the

learning process itself (Vygotsky, 1978). In applying group investigation as a teaching approach, the researcher argued that learning is a social act and using the physical Life Orientation classroom as a workspace for peer teaching, collaboration and small group instruction created the condition and atmosphere for effective participation.

The researcher concludes that the socio-cultural-learning theory could provide insights into preparing learners when they are working with fellow classmates to achieve a common goal and to interact socially and thus socio-cultural-learning theory served as the underpinning theory for this study. The researcher believes that the socio-cultural-learning theory can effectively be applied “as a lens to understand” the group investigation teaching-and learning approach in the Life Orientation classroom.

1.8 RESEARCH DESIGN AND METHODOLOGY

The overarching aim of this study was to explore the use of group investigation as a cooperative learning teaching approach to Life Orientation in selected secondary schools in the Pixley Ka Seme District in Northern Cape Province. It was therefore important to ensure that a particular plan and design is devised in order to conduct the investigation.

1.8.1 Research Design: Mixed Methods Research

Research design can be seen as the road map on how you plan to conduct your journey [study] and from which angles [how, from whom, from where] will you undertake the trip [how data will be obtained]. Durrheim (2006:34) sees a research design as a framework between the research questions and how the research will be executed. This indicates that the planned procedure must dictate positive methods be employed in answering the research question. In order to follow the roadmap, the researcher employed the mixed method research approach and as a result combined features of qualitative and quantitative methods in studying this phenomenon. McMillan and Schumacher (2010:20) describe research design as the procedure for conducting the study, which includes when, from whom, and under what conditions the data will be obtained.

Creswell and Plano Clark (2011:5) attest that the combination of quantitative and qualitative data in a mixed method research gives you as the researcher more clarity

on the broader picture of the collection and analysis of data in the research problem. For the purpose of this study, the researcher explored the extent to which teachers used group investigation as a teaching approach for Life Orientation in selected secondary schools in the Pixley Ka Seme district of the Northern Cape Province through the use of source-based assignments, recording of classroom environment with a observational checklist (quantitative research method) and interviews, observations and document analysis (qualitative research method) to collect data.

1.8.2 Research Paradigm: Pragmatic Mixed Methods Research Paradigm

The pragmatic mixed methods research paradigm allows the use of both qualitative and quantitative data for the purpose of employing the strengths of each method where the other one is weak (Creswell, 2012). Therefore, research is about the social world which provides the researcher's ontological (view of nature of reality), epistemological (a related view of the type of knowledge that can be generated and standards of justifying it) and methodological (a disciplined approach to generating that knowledge) belief system. Importantly so, the epistemological position of mixed methods research acknowledges a multi-paradigm stance, whereby qualitative and quantitative data were collected and analysed, concurrently, sequentially given equal weight to prior given to either one of them (Creswell & Plano-Clark, 2011; McMillan & Schumacher, 2010:396).

The chosen paradigm forms the basis of guidance to the inquiry, methodology, and selection of methods for data collection. Moreover, the purpose intended is to connect the findings of the two paradigms in a single study to provide thorough and comprehensive understanding of the phenomenon (Zandvanian & Dryapoor, 2013; Wahyuni, 2012). Therefore, the researcher chose a multi-paradigm stance that includes the pragmatic paradigm as a research paradigm for this study. Furthermore, the study sought to explore the use of group investigation as a teaching approach for Life Orientation in selected secondary schools.

1.9 RESEARCH SITE, POPULATION AND SAMPLING

1.9.1 Research Site

Research site is the selected place where the researcher collects data on the problem being investigated (McMillan & Schumacher, 2010: 326). The selected site for the

selection of participants was the Pixley Ka Seme district in the Northern Cape Province. The Northern Cape is divided into five districts comprising Frances Baard, John Taolo Gaetsewe, Namaqua, ZF Mgcawe and Pixley Ka Seme.

Pixley Ka Seme District forms part of five district municipalities in the Northern Cape and is the second largest covering a total surface of 102 727km². The total population in Pixley Ka Seme District is of 182 006 which represents 16,49% of the population of the Northern Cape (Pixley Ka Seme District Municipality Overview, 2012-2018). De Aar, a small town in the Karoo, is situated more or less centrally in the Pixley Ka Seme District. It also hosted the District Office of the Northern Cape Department of Education (NCDoE). The district was selected due to the geographical position and my role as subject advisor in this district (see Chapter 4 for in-depth information).

1.9.2 Population and Sampling Procedure

A sample is a group of participants from whom data is collected (McMillan & Schumacher, 2010:129). Purposive sampling, a non-probabilistic strategy in nature, is commonly used where the purpose of selection is based on their knowledge and experience that informs the data needed for the study. The teachers in this study were selected because they teach Life Orientation in their schools. Instead of attempting to generalise, the intention was to give an opportunity to the participants to express and share their views as Life Orientation teachers about their experiences in teaching Life Orientation (Maree, 2016:198).

The researcher selected two schools from each circuit for the purpose of this study. Selection of schools varied from one Former Ex-Model C school and one Public no fee-paying secondary school from each circuit (see Table: 4.2 for more information). Purposive sampling was employed to sample ten (n=10) secondary schools from five (n=5) circuits. From each circuit, two secondary schools were sampled, namely, one model C (Quitile 4 or 5) and one public school (Quitile 1-3). In each school, two Life Orientation teachers were sampled, namely, one head of department and one post level one. The sampling of this study comprised of two schools from five (n=5) category circuits comprising ten (n=10) teachers. All teachers were teaching Life Orientation across the phase (Grades 10 to 12) at their schools respectively. From the 10 classes, forty learners per class were selected as participants for the purpose of this study (n=400). Forty (n=40) was the minimum number of learners per class across the 10

life orientation classes. Many of these learners in the Pixley Ka Seme district were progressed learners, which implies that learners have not really complied with all promotion and progression requirements, but have progressed from one grade to the next (DBE, 2011c: ix). For the purpose of convenience and access it was selected as a schooling district from which to select specific secondary schools (see Chapter 4 for in-depth information).

1.10 DATA COLLECTION

The researcher used both primary and secondary sources of data. Primary sources included the information provided by the teachers and were data from official national and provincial Department of Education policy documents. Secondary sources were any material like books or articles that were based on previously published works and often they formed the basis of the literature review (Maree, 2016:88).

The quantitative section dealt with statistical analysis of numerical data to provide quantitative information. Quantitative data were collected through the use of an observation checklist to record classroom teaching to determine the shortfalls and strengths in Life Orientation (McMillan & Schumacher, 2010:139). In addition, the researcher used Life Orientation teachers' personal documents such as master files, lesson plans and notes, assessment records, Departmental Life Orientation circulars, learners' portfolios and notebooks to collect data from learners.

Qualitative data were collected through the use of semi-structured face-to-face interviews with teachers and focus group interviews with learners, guided by researcher-designed interview schedules. The effectiveness of semi-structured interviews was that every respondent was asked the same open questions that was followed by further probing and clarification and allowed for comparison between the responses from all respondents (Maree, 2016:93).

McMillan and Schumacher (2010:350) suggest it is better to record what you see and hear as it happens in the natural environment; they term it observation. As the study focused on the use of group investigation as a teaching approach to Life Orientation in selected secondary schools, the researcher used the stance of a non-participatory observation method as an 'etic' or 'outsider perspective' to collect valid and reliable information. This type of observation, used in qualitative research, is called a complete

observer (Maree, 2016:91). A researcher-designed observation schedule was used by peer observers to observe the class presentations of teachers (see Chapter 4 for in-depth information).

1.11 DATA ANALYSIS

Data analysis is the process of making meaning of the mass of collected data, to structure it in a specific order and to consolidate, reduce and interpret what the participants have said and what the researcher has observed (De Vos, 2002:339). The researcher employed the constant comparison method of grounded theory, as a tool to analyse qualitative data, using inductive methodologies. Inductive methodologies included categories and sub-categories that emerged from the data being analysed. Furthermore, the researcher transcribed the data, coded and analysed manually, and presented the narrative in accordance with the themes generated with the objectives that the study sets out to achieve. The quantitative data which emanated from the teacher observation checklist analysis were analysed using the descriptive statistics (McMillan & Schumacher, 2010:139). Thereafter, a descriptive data analysis was conducted and the presentation included percentages, graphs and charts (see Chapter 4 for in-depth information).

1.12 RESEARCH RELIABILITY AND VALIDITY

1.12.1 Research Reliability and Validity in Qualitative Research

McMillan and Schumacher (2010:104) opine validity as the level of understanding between the manner in which people express themselves and the realities of the world. To ensure that the findings are correct, accurate and valid, the researcher employed certain procedures, including trustworthiness, credibility, and defensibility. Qualitative validity poses a potential threat which they term researcher bias, normally evident when observation and recording of information is done with preconceived ideas. Another threat to qualitative validity is when personal views and perspectives are considered during interpretation of data and how the research is conducted (Johnson & Christensen, 2004:249). Creswell (2009:190-196) asserts that by including the information or procedures of triangulation in an incorporating manner with member checking and participant involvement, it can address the accuracy of data during internal involvement. The researcher engaged in prolonged and persistent fieldwork

and used the natural setting where people [participants] live to conduct an in-depth interview with them [participants]. The researcher applied multi-method strategies to promote the validity and reliability of the investigation. Multiple strategies permit triangulation of data across inquiry techniques.

Triangulation promotes the validity and reliability of an investigation and entails the use of a variety of data sources which add depth to the findings and complement one another (De Vos, 2002:342). In this study, the researcher used more than one method for gathering data such as individual face-to-face interviews, non-participatory observations, analysis of documents in order to compare results. In this study, the qualitative and quantitative approaches (mixed-methods) employed with the use of triangulation with face-to-face interviews, classroom observation, and documents in Life Orientation classes which helped in establishing the trustworthiness of the study.

1.12.2 Research Reliability and Validity in Quantitative Research

The validity of an instrument refers to the extent to which it measures what it is supposed to measure. The researcher ensured that the observation schedules covered all aspects of the different variables of this study to meet the requirements of different types of validity. An instrument is only reliable when it is used by a similar group of participants in a similar context and yielded the same results. It is also reliable when the instrument is repeatable and consistent (Maree & Pietersen, 2010:216). Learners' data from the different schools, which offered the results on the academic performance of the last three years pertaining Life Orientation in the district and province, was accessed from the Education Management Information System (EMIS) at the Pixley Ka Seme District Office of Education in De Aar.

1.13 ETHICAL CONSIDERATIONS

The researcher requested the ethical clearance from to the Ethics Office of the Faculty of Education at the University of South Africa (UNISA) for approval to conduct the research. A letter to conduct the research in the Northern Cape Province was sent to the Superintendent General of the Northern Cape Department of Education and the District Director of Pixley Ka Seme District for approval. A letter to obtain permission

to conduct research at the schools was sent to the principals of each selected school in the district. Participants were informed of their right to withdraw with no penalty. The researcher obtained consent by asking the subjects [learners] or parents of minor subjects, to sign a form that indicated understanding of the research and consent to participate. The interest of the participants was protected with strict confidentiality and to protect their identity and that of the school. Confidentiality and anonymity of the participants were assured. All ethical requirements were applied when reporting the results in a comprehensive and honest way.

1.14 DELIMITATIONS AND LIMITATIONS OF THE RESEARCH STUDY

The focus of this study was mainly to explore the extent to which teachers make use of group investigation as a teaching approach to Life Orientation in selected secondary schools in the Northern Cape Province. The researcher selected only 10 secondary schools from one district, Pixley Ka Seme, in the Northern Cape Province. By selecting a sample from the other four districts [Namaqua, ZF Mgcawe, John Taolo Gaetsewe, and Frances Baard] in the province, a more detailed investigation into the use of group investigation as a teaching approach would have been possible. Due to the vast distances between the different districts and schools in the province, time and financial constraints made it difficult for the researcher to reach all schools within the district.

1.15 CLARIFICATION OF TERMS

Group Investigation (GI)

Siddiqui (2013:78) defines group Investigation as a cooperative teaching and learning approach where learners interact meaningfully in class group activities when engaging in the process of academic inquiry. Group investigation is a task specialisation strategy where learners work collaboratively in small groups to investigate and understand the phenomenon (Sharan & Sharan 1992:1; Zingaro, 2008:8). Siddiqui (2013) asserts that the classroom becomes a social system built both on cooperation among students in small groups and on coordination between groups in the classroom.

Life Orientation (LO)

Learners learn about themselves when they socially interact with others. Predominantly, the focus of learning is on the effective acquiring of skills, knowledge

and values within a socially constructed learning environment. Learners must make informed decisions and choices, follow suitable career and career choices, and become healthy and productive citizens in a local and global context (DBE, 2011: 8). Sedibe (2014:60) argues that Life Orientation is a unique school subject which focuses on diversity of learners in a holistic development framework and leads to the social, physical and recreational development of the learner in relation to others. In this study, Life Orientation sought to explore how knowledge, skills and values can contribute to social cohesion among learners when participating in group investigation activities.

Public School

Public schools are controlled by the state and are supported by the school governing body (SGB). The SGB of a school is selected by parents or guardians who are having school going children at that particular school. The function of a SGB is to supplement the resources provided by the state and thereby is obliged to improve the quality of education of learners at that school as stipulated in the South African Schools Act, 1996 (DBE, 2018:5). In this study, public schools will serve a learning institution where learners and teachers enjoy the benefit of teaching and learning and where learning will not only focus on in-class teaching, but also be open for out-of-class teaching activities.

Teaching Approaches

Teaching approaches are sets of assumptions or theoretical positions dealing with the nature of language, learning, and teaching (www.teachingenglish.org.uk). It is important that teachers are able to adapt their teaching approaches in order to address the learning needs arising from the teaching and learning context. The diversity of learners in the classroom must be considered because learners attend to learning with their own interests, motivation and personalities (INTO, 2007:13). Van Wyk (2013:125) brings teaching approaches closer to teaching strategies and posits that it is a plan of action and it must respond to the daily teaching activities and the desired learning outcomes to be achieved. To be able to do this and deliver quality teaching, it brings to the fore the need for effective teaching strategies to enhance student learning. From

these definitions, it can be deduced that a teaching approach is the manner in which a teacher presents a lesson for learning to take place in a classroom.

1.16 CHAPTER OUTLINE

Chapter 1 is an introduction and overview of the study. It provided the background information on the research study, described the problem, and outlined the purpose of the study as well as the offering a brief outline to the research design to be followed.

Chapter 2 introduces and explains the theoretical framework of this study. It provides the rationale for conducting the research, outlines the concepts that guide this study and all the components and their relation to the study. The motivation for using the socio-cultural learning theory as the underpinning theory for this research is presented.

Chapter 3 discusses a comprehensive review of the literature on the use of group investigation as a cooperative learning (CL) approach in Life Orientation. This chapter discusses the historical background and nature of CL, the value, benefits and pitfalls. It presents the concept of teachers' pedagogical knowledge of GI as a teaching and learning approach, the subject matter as well as the teaching and learning approaches in Life Orientation.

Chapter 4 presents the research design of the study being an empirical mixed methods study with qualitative and quantitative aspects. The chapter provides information on the research paradigm followed in the study, sampling issues, as well as the employment of face-to-face interviews with teachers, group interviews with learner groups, peer observation schedules, an observation checklist and document analysis as data collection methods for the study.

Chapter 5 presents the findings emerging from the data collected. These findings were arranged in themes and sub-themes.

Chapter 6, the final chapter, offers a summary of the research findings drawing research conclusions for each of the research questions. In addition, recommendation

for policy, practice and future research are also offered. Finally, contributions of this study are presented and limitations of the study are discussed before the conclusion, brings the study to an end.

1.17 CONCLUSION

The rationale for the study lies in the skills, knowledge and competences of the Life Orientation teachers and how these teachers respond to these competences. This research study explored the extent to which teachers use group investigation as a teaching approach to Life Orientation in secondary schools in Pixley Ka Seme district of the Northern Cape Province in South Africa. Group investigation is specifically employed across the curriculum as this strategy can be applied in all school subjects.

Group investigation also caters for all learners and ensure that they are active participants in the cooperative working groups, developing a sense of belonging and respect for one another. The social interdependency of learners is central to this study because it strengthens interpersonal relationships and enhance learners' scholastic performance. However, for successful teaching and learning to occur, teachers need to undergo intensive training to implement this complex teaching approach effectively in the Life Orientation classroom. As a result, teachers will be required to shift their planning and preparation to a more learner-centred approach as it is a pre-requisite of the skill-driven curriculum.

This chapter provides an introduction and background to the problem, the problem statement, the review of the literature, the research design and methodology that was followed in this study. Different concepts within the cooperative learning and teaching milieu were clarified.

CHAPTER TWO

THEORETICAL FRAMEWORK

2.1 INTRODUCTION

The previous chapter described the background and the theoretical framework introduced the study. The problem statement was given and the pedagogical significance of the study described. This chapter also presented the research problem leading into the research questions and the aims and objectives of the study. A brief outline of the research methodology was given with methodological norms and ethical considerations.

This chapter elaborates on what group investigation entails, the advantages of using group investigation when teaching Life Orientation and the value it has for learners. This research will give an account on the various definitions of a theoretical framework, multiple theoretical components and its relevance and then theoretical triangulation within the socio-cultural constructivist theory as a theoretical framework underpinning the study.

2.2 THE CONCEPT OF GROUP INVESTIGATION

Group investigation is an approach for classroom instruction whereby learners work collaboratively in small groups to examine, experience and understand their topic of study. The fact that group investigation is designed to appeal to all facets of the learners' abilities and experience relevant to the process of learning, provides teachers with an approach to conduct teaching and learning in school that differs from the traditional teaching instruction. It is also argued that group investigation is not simply another teaching technique for improving instruction so that learners can learn at a faster pace, but it is to comprehend fully the goals and meaning of the group investigation which examine the intellectual, pedagogical and psychological foundations on which this method is based (Sharan & Sharan, 1992:1). Certain scholars have made noteworthy contributions to group investigation as a teaching approach are John Dewey (1869-1952) on classroom practice, Kurt Lewin, the founder of 'group dynamics', Herbert Thelen about 'task-oriented groups' and constructivists

like Piaget and Sigel, who have developed and studied cognitive psychology (Sharan & Sharan, 1992:2).

Group investigation's inter-connectedness with Life Orientation is embedded in the concept of Life Orientation and the values enshrined in the Constitution of the Republic of South Africa (1996). To build on the former, for Dewey, the process of learning in school emphasised a series of social, emotional and intellectual events which occur in a social context where learners cooperatively interchange ideas with their fellow classmates. Life Orientation, as a school subject, lends itself to the study of self in relation to others and to society, applied as a holistic approach to the personal, social, intellectual and emotional development of learners. The latter upholds the principles or values on which the National Curriculum Statement (NCS) (DBE, 2011a:4) is based amongst others, social transformation and active and critical learning. Unlike competition that rips group work apart, group investigation, as a cooperative teaching approach, serves as the cement of social groups. It also seeks to provide as many learners as possible with the opportunity to develop their abilities to the fullest and excel in their knowledge and grasp of matters.

The advantages that group investigation, as a flexible approach, holds for learners in teaching and learning are to create conditions that allow learners in collaboration with their fellow classmates, to identify problems, plan together the process needed to understand and cope with these problems, collect relevant information and cooperatively prepare a report of their work. Group investigation provides an arena for the creative use of controversy among learners over divergent points of view regarding the topic at hand. Such conflicts can be properly employed as a vehicle within the cooperative learning environment to expand learners' social and intellectual horizons.

Teachers tend to use multiple methods of instruction, but applying cooperative learning allows them to change from a mass production model to a team-based, high performance collaborative model. Johnson, Johnson and Holubec (1994:13) view cooperative learning as an organisational structure that effects all aspects of classroom life. Learners have to acquire and develop necessary skills to be able to focus on both their own improvement to achieve and that of other teammates. When learners are taught relevant skills, they build positive relationships that support group

mates academically and emotionally. This is possible when a positive interdependence structure is in place and learners are conversant with this type of approach. Furthermore, it produces promotive interaction among learners, whereby they encourage and motivate one another to successfully achieve group goals.

What is evident from the literature is that teachers can find themselves in situations where learners do not want to cooperate willingly and freely in cooperative working groups. Contrary to what is discussed in the previous paragraph, learners might feel threatened by assisting fellow classmates from achieving as highly as they do and/or are not willing to share information (Johnson, Johnson & Smith, 1995:11). Consequently, the teacher will face a class with negative interdependence. At this point in time, the teacher should be able to teach the proper skill and knowledge to learners in order to understand the basic principles of cooperative learning. Teed, McDaris and Roseth (2006:1) opine that such learners would learn more effectively, remember work much longer (good retention skills) and develop critical thinking skills.

The benefits are not only for learners, as teachers also gain from implementing group investigation as a cooperative learning approach in their classrooms. Lesson planning is one of the noticeable improvements that occur. There is ample time to observe how learners interact and have the opportunity to help individual groups, which in turn enables the teacher to attend to each learner in the classroom. Moreover, the teacher becomes aware of the insight of learners and guides their understanding toward the content at hand in the correct context (Murdoch & Wilson, 2008:7).

In the next section, the researcher elaborates on the specific learning theories that resonate within the social-cultural constructivist theoretical framework (SCCTF).

2.3 DEFINING A THEORETICAL FRAMEWORK

The theoretical framework is the 'blueprint' for the entire research process of inquiry and serves as the guide on which to build and support the study, providing the structure to define the philosophical, epistemological, methodological and analytical approach to the study as a whole. As Imenda (2014:189) proposed, it refers to the theory that a researcher chooses to guide him/her in his/her research and is an

application of a theory, or a set of concepts drawn from one and the same theory, to offer an explanation of an event, or shed some light on a particular phenomenon or research problem. Therefore, it is of the utmost importance that the researcher has a clear guide of inquiry on the theoretical orientation that could influence the rest of the study.

LeCompte and Preissle (1993) define a theoretical framework as a collection of interrelated concepts that can be used to direct research with the purpose of predicting and explaining the results of the research. Basically, a theoretical framework is used to provide the rationale for conducting the research (Radhakrishna, Yoder & Ewing, 2007). However, in educational research, theoretical frameworks have a number of roles which improve the quality of research. It could assist the researcher and shapes the inquiry in a number of ways. Firstly, it serves as the basis of a research plan; secondly, it situates the researcher within a scholarly discourse and links the study to the broader body of literature; thirdly, it provides a framework within which a problem under investigation can be understood; fourthly, it provides assumptions that guide the research. The fifth role is to help the researcher to choose appropriate questions for the study; the sixth role is that the theoretical framework convinces the reader of the relevance of the research question and finally, the theoretical framework guides the researcher toward appropriate data collection methods (Ngulube, Mathipa & Gumbo, 2015:54).

A theoretical framework is an essential component of research that shapes the quality and scope of investigations (AERA, 2006). The theoretical framework serves as a plan for this research, presenting a systematic view of the phenomena by specifying relations among variables with the purpose of explaining and predicting phenomena (Kerlinger, 1986:9). These roles also describe the researcher's framework for making sense of the observations by providing and overarching structure to this study. Another important aspect of the effectiveness of a theoretical framework is data that might initially seem unimportant or unrelated, may be identified, explained or related to other data in meaningful ways. In relation to choose appropriate questions for the research, if the researcher does not use theory to inform the research, it might risk the possibility of failing to raise and examine theoretically-grounded questions and may generate findings of a narrow or limited value. Therefore, the researcher might also miss an opportunity to establish new and creative ways of framing the problem at hand.

2.4 MULTIPLE THEORETICAL COMPONENTS

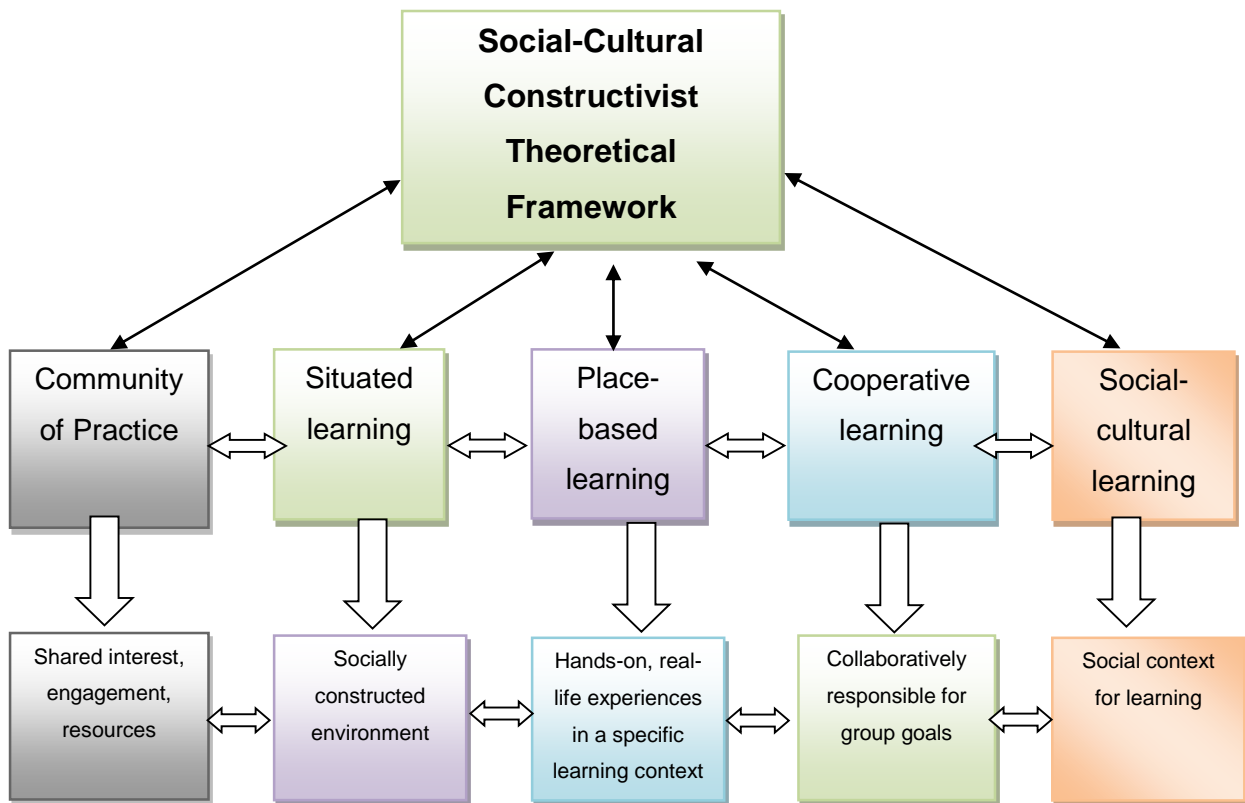


Figure 2.1: An illustration of the multiple theoretical components

The researcher used a series of multi-related theories as a theoretical framework to guide the inquiry, which departs from the foundational tenets of a traditional Grounded Theory (GT) study.

The research was conducted within the socio-cultural constructivist theoretical framework (SSCTF), and especially within the framework of Glaser and Strauss's grounded theory (Merriam, 2009:29). The social-cultural constructivist theory was developed by post-revolutionist Soviet psychologist, Lev Vygotsky (1978). Vygotsky was a cognitivist but rejected the assumption made by cognitivists such as Piaget (1973) that it was possible to separate learning from its social context. Vygotsky's theory is regarded as a specific brand of social constructivism because the theorist emphasises the critical importance of the social context for cognitive development.

SSCTF suggests that knowledge is first constructed in a social context and is then taken up by individuals (Eggen & Kauchak, 2004:46). This means that social constructivism views knowledge as constructed by learning and gaining understanding

through the shared experiences of multiple participants, as opposed to being created. This implies that learners in Life Orientation can be empowered through activity and responsibility and can further be motivated to construct knowledge in a social setting, creating a community of learning in which they [learners] rely on one another to make sense of the task at hand. The researcher opines that this kind of dialogue amongst peers set the stage for critical thinking and deeper understanding in the Life Orientation class when learners have been given a group investigation task. Social constructivism provides the classroom environment and opportunity for these critical interactions about ideas to occur, as well as the setting for Life Orientation learners to think about what they are learning in a welcoming environment (Watkins & Mazur, 2013). SCCTF postulates collaboration in learning and stems from the collection of experiences gathered through interactions via interviews and observations that will incorporate the historical and cultural norms that operate in individuals' lives (Creswell, 2013:24). Therefore, group investigation in Life Orientation can easily promote collaboration in learning which stems from the collection of experience gathered through interactions in class or during fieldwork. A social-cultural constructivist theoretical framework is founded on multiple and diverse perspectives of a single reality, through social interactions, including interviews and observations (Charmaz, 2006). It is the researcher's view that Life Orientation learners should be exposed in group investigations that require them to interact with the community, wherein, through interviewing them and observing their conduct, can gather new knowledge and experiences that will be shared amongst each other during a class presentation.

2.5 RELEVANCE OF MULTIPLE THEORIES IN ONE STUDY

It is important to measure the link between the community of practice theory, situated learning theory, place-based learning theory, cooperative learning theory, and the socio-cultural learning theory and the sub-research questions within the socio-cultural constructivist theory (SCCT) framework of this study (Ngulube *et al.*, 2015:54).

Based on the above, it is critical to be guided by the following sub-questions posed in this research:

1. What does the scholarly literature on different teaching and learning approaches to Life Orientation in South African context entail?

2. How do theories foregrounding group investigation enhance a cooperative teaching and learning approach to Life Orientation?
3. Which pedagogical Life Orientation content knowledge and skills should secondary teachers have in planning group investigation as a cooperative teaching and learning approach?
4. What are the benefits and challenges of group investigation as a cooperative teaching and learning approach to Life Orientation?
5. Which strategies could be used to improve teacher proficiency regarding group investigation as a cooperative teaching and learning approach to Life Orientation?

2.6 THEORETICAL TRIANGULATION: SOCIO-CULTURAL CONSTRUCTIVIST THEORY (SCCT) AS A FRAMEWORK

Social sciences have multiple, and at times, competing, theories. The scientists sometimes combine theories to explain a set of data in order to achieve fidelity and combining more than one theory in a given study is generally known as theoretical triangulation (Denzin, 1978). The researcher applied theoretical triangulation to enhance the understanding of the phenomenon under investigation and increasing the validity of the explanations. In order to apply theoretical triangulation, the researcher used the following five supporting theories to study a phenomenon in such a way that the theories complement and intertwined with each other. These theories include communities of practice; situated learning theory; place-based learning theory; cooperative learning theory and the socio-cultural learning theory.

2.6.1 Communities of Practice Theory

The term communities of practice (CoP) was pioneered by theorists like Jean Lave and Etienne Wenger during the period of 1991. Wenger's (1998) research into social learning has been particularly influential, with specific reference to the concept of CoP and social learning for organisations. The community of practice theory as a construct, finds its roots in the socio-cultural theories of learning and development. A very contentious issue is raised by the author and posits that all human development is founded upon social interaction in cultural or historical practices that are mediated by

the use of cultural tools and signs (Vygotsky, 1978). Therefore, social-cultural theories of learning regard community as the most important part of the development process. In relation to this, people in an identified area who have a common idea on how to develop themselves personally and professionally, can generate knowledge to be used to their own advantage. The community of practice is a learning partnership related to a domain of practice. Members of a community of practice may engage in the same practice while working on different tasks in different teams, but they can still teach together (Farnsworth, Kleanthous & Wenger-Trayner, 2016:5). The researcher employed a community of practice theory in order to observe Life Orientation teachers' implementation of group investigation when teaching learners different groups on the same task. It is expected of the Life Orientation teacher that he/she should be able to facilitate this process and see that learners follow the planning steps of the investigation correctly.

An important feature of a community is when a group shares a common goal, which means that they will tend to share common interest in a social learning context (Farnsworth *et al.*, 2016: 5). Additionally, Li *et al.* (2009: 3) expand on the work of Wenger *et al.* (2002:4) and Wenger and Snyder (2000:139) who emphasise that the interpersonal relationship of members in a group, forms the foundation of the way in which they perform their group task. A CoP is a group of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in the area by interacting on an ongoing basis (Wenger, 2007). The use of the term has become quite widespread and actually stems from theories based on the idea of learning as social participation (Wenger, 1998). The community of practice is also described by the social learning theory and therefore, the researcher will briefly refer to the social learning theory as a related component of CoP. To add to this idea of the various authors, people can also be identified by the role they play or the task they perform in a group. However, all the above-mentioned definitions shared a common interest in sharing and equipping members with knowledge and skills.

Social cognitive theory is attributed to the work of Bandura conducted in the late 1970s. Bandura (1977:22) emphasised the importance-of observing and modelling the behaviours, attitudes and emotional reactions of others. The author believes that most human behaviour is learned observationally through modelling; that is, in observing others, one forms an idea of how new behaviours are performed, and on later

occasions, this coded information serves as a guide for action. Bandura constructed social cognitive learning theory as both a behaviourist and cognitive model, as he used it to explain human action in terms of continuous reciprocal interaction between behavioural, cognitive and environmental influences. In many ways, Bandura's work complimented ideas from Vygotsky's (1978) theory of social interaction playing a fundamental role in the development of cognition and Lave's (1998) theory of situated learning. It can be deduced from Bandura and Vygotsky's perspectives that teaching and learning of Life Orientation pays attention to the learning of behaviour, attitudes and the emotional reactions, which can easily be done through the use of group investigation.

Communities of practice include core values, as illustrated by Jimenez-Silva and Olsen (2012:341-343). These authors identified particular values such as human diversity, safety, and trust, which are also enshrined in the Constitution of the Republic of South Africa, 1996. This explicitly indicates how important these values are with regards to the teaching and learning of Life Orientation through group investigation. Knowledge can only be constructed when the teacher and learners are actively involved in sharing experiences in a socially constructed environment.

The community of practice is characterised by three features; namely, domain, community, and practice. In summation, in the community of practice, the group has to address issues they are experiencing as a collective to share their own life experiences. In so doing, learners can benefit from the wealth of knowledge brought to the pool by each member. Group investigation held by Life Orientation teachers can help learners in the Life Orientation classroom to learn from one another, intentionally or unintentionally. Employing the community of practice theory, learners can learn to interpret information to clarify their own ideas during a group investigation activity.

To elaborate on how the community of practice theory foregrounds group investigation as a cooperative teaching and learning approach to Life Orientation, Wenger (1998:73) posits that a community of practice seems to be defined as a community with a joint enterprise, shared repertoire, and mutual engagement. The author uses the term 'domain' to define the area in which a community claims to have the legitimacy to define competence. A team or group is defined by a joint task, something they have to accomplish together. One could go further to refer to a group as a task-driven

partnership, whereas community of practice is a learning partnership related to the domain of practice. With reference to this study, Life Orientation learners were expected to engage in the same group investigation while working on different teams, but can still learn together. In this case, Life Orientation learners were given the boundaries that enable them to decide what is worth sharing and how to present their ideas in the classroom. Wenger-Trayner and Wenger-Trayner (2015:1) state that communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavour. Within the context of this study, Life Orientation learners could be grouped to investigate a certain concept in order to share a common concern or passion for something they do and learn how to do it better as they interact regularly. Learning can be central or peripheral to the process but always remains an important component. Wenger (2011:1) suggests that communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavour, which implies that collective learning in a Life Orientation class, offers learners the opportunity to share knowledge and skills. The following illustration, Figure 2.2, indicates the inter-connectedness of a community of practice and the social cognitive learning theory.

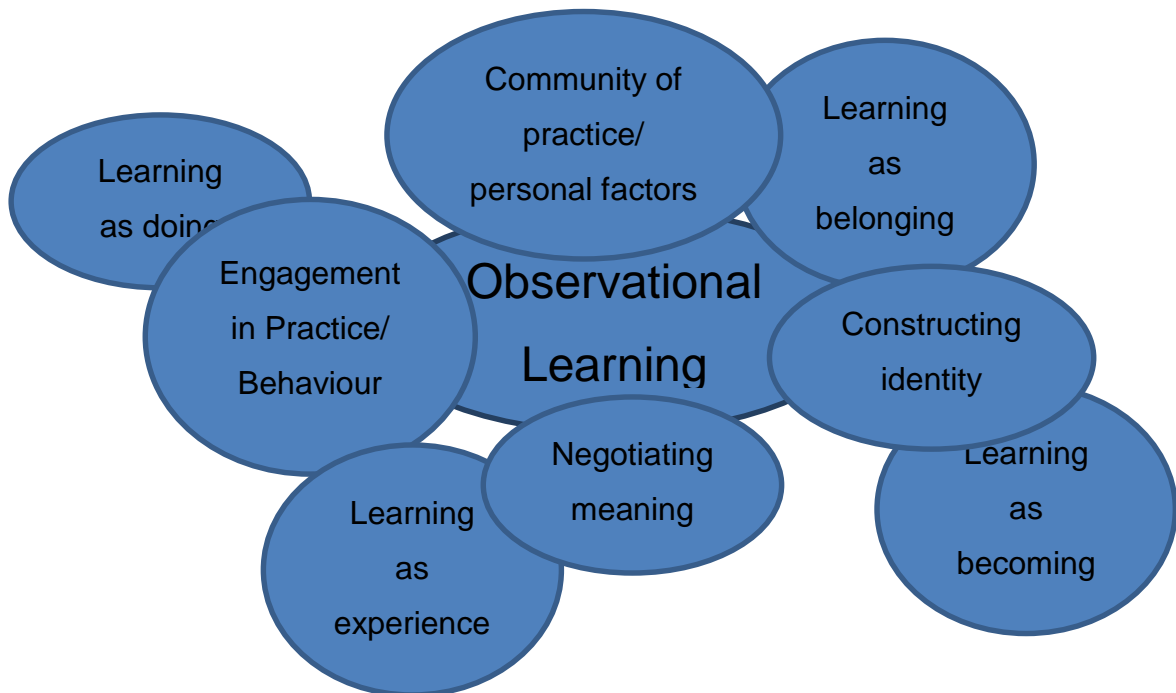


Figure 2.2: Inter-relation of community of practice and social cognitive theory

(Adapted from Wenger's Components of a Social Theory of Learning with Communities of Practice, Murillo, 2011; Wenger, 1998)

Wenger suggests four components of learning, including *learning as belonging* in a community, *learning as becoming* with constructing identity, *learning as experience* through the negotiation of meaning and *learning as doing* as engagement in practice. Wenger summarised a personal perspective on these components in a community of practice (CoP):

Meaning; the way of talking about our ability, Practice; a way of talking about the shared historical and social resources that can sustain mutual engagement, Community; a way of talking about the social configurations which our enterprises are defined as worth pursuing, and Identity; a way of talking about how learning changes who we are and creates personal histories of becoming in the context of our communities (Wenger, 1998:5).

Members of a community of practice are practitioners that develop a shared repertoire of resources in that they share experiences, stories and ways of addressing recurring problems or concepts that the community has produced or adopted in the course of existence (Wenger, 1998:83). The authors claimed that communities of practice can optimise the creation and dissemination of knowledge when the three elements work well together in a mature community of practice. To clarify these resources, Brown and Duguid (1991) highlight three elements which include narratives, which the community use this for diagnosing of problems and representing repositories of existing knowledge, collaboration, which is fuelled by participants engaged in and sharing common practice and lastly, social constructivism, where participants develop a common understanding of their practice and of how to solve problems.

Taking into consideration the definition of group investigation by Siddiqui (2013:78), group investigation is a cooperative teaching and learning approach where learners interact meaningfully in class group activities when engaging in the process of academic inquiry and in coordination between groups in the classroom. This asserts that it enables the Life Orientation classroom to become a social system built both on cooperation among learners in small groups. The socio-cultural constructivist framework encourages the Life Orientation learners to arrive at their own version of the truth, influenced by their background, culture, or embedded worldview. This emphasises the importance of the nature of Life Orientation learners' social interaction with knowledgeable members of society. According to the SCCT framework, the

process of sharing each persons' point of view is called collaborative elaboration (Van Meter & Stevens, 2000:60) and results in learners building understanding together.

Building on the above discussion, the next section presents a layout of the situated learning theory as a component of theoretical triangulation of this study.

2.6.2 Situated Learning Theory

Situated learning or situated cognition was first expounded by Brown *et al.* (1989: 34). Lave and Wenger (1991) continued with situated learning and argue that students were likely to learn more by actively participating in their learning domain. Situated learning as the term indicates, is learning occurring in a specific environment or specific to a situation (Lave, 1998). Situated learning theory is based on the work of Vygotsky, Leontiev and Dewey (1978) whose work plays an important role when developing substance for this research. Brown *et al.* (1989: 34) argued that effective knowledge construction will only occur when the physical and social milieu are interwoven within a specific context.

In the context of this study, the preceding statements imply that meaningful learning take place if the social and physical context is considered. Life Orientation learners become responsible for their own success and development within a socially constructed classroom environment. It is equally important to note that learning is also the learners' personal discovery of meaning and they must be able to take the newfound information and make it part of their own lives. The researcher opines that situated learning can be defined as learning where Life Orientation learners are actively involved in their learning environment and experience it in combination with others.

Situated learning is known by some characteristics which have contributed to the development of the theory in particular (Brown *et al.*, 1989:39). One of the characteristics of situated learning is the appropriate context for life experiences. This implies that Life Orientation learners must be exposed to situations where they are in a position to gain personal first-hand experience during group investigation. The next characteristic is called activities in real situations. Teachers must provide opportunities with which learners are familiar or with which they can associate themselves. Concepts in Life Orientation, like risk behaviour as an example, can be practically

demonstrated in scenarios when the teachers use source-based tasks or case studies. In source-based tasks, learners are confronted with relevant sources from newspapers or magazines which require in-depth reading in which they are expected to analyse and apply problem-solving skills. On the other hand, case studies present real-life situations or any other current issues whereby learners have to assume a particular role in articulating their point of view (DBE, 2011a:28). The third strategy identified in situated learning, is where teachers provide demonstrations of learning situations. This refers to the first sub-research question: *What does the scholarly literature on different teaching and learning approaches of Life Orientation in South African context entail?* Although demonstrations are one of the teaching approaches prescribed in the curriculum (DBE, 2011a: 28), the importance of why teachers have to be able to apply various teaching approaches in the Life Orientation classroom cannot be over-emphasised.

The practice of teachers is determined by their level of understanding of how to apply group investigation. Learners must be shown how things need to be done with teachers facilitating the process. Integrating the content in a task for assessment is the last and final characteristic. With this characteristic, teachers can use learning material comprised of different subjects, such as labour laws, which overlap within subjects like Life Orientation, and other subjects such as Business Studies, Economics or Tourism, can be infused into a task for assessment purposes. Situated learning emphasises that teachers must be able to perform practical demonstrations on how tasks must be executed or performed to allow learners to observe it in order to perform it independently (Lave & Wenger, 1991). In order for Life Orientation teachers to be abreast with the most effective teaching and learning approaches, they must up-skill their professional content knowledge and pedagogical Life Orientation subject knowledge. It remains important to the researcher to demonstrate how these characteristics of situated learning theory align with group investigation as a teaching and learning approach within the socio-cultural constructivist theoretical (SCCTF) framework.

Situated learning takes place in an environment that provide real and original learning activities in which learners are actively involved. Brown *et al.* (1989:35) assert that it provides the opportunity to decide between real and irrelevant information. Life Orientation learners are confronted with real-life problems whereby they have to use

newly-gained knowledge to solve the problem. Sharan and Sharan (1992:97-113) postulate that learners who participate in group investigations in Life Orientation, develop the skills of identifying a topic, planning a task, gathering information, analysing and evaluating information, presenting and lastly, assessing their presentations. A situated learning approach within the design of group investigation allows learners to explore resources with all their complexities of the real world. What is interesting is that the Curriculum and Assessment Policy Statements (DBE, 2011a: 25) states that teachers should guard against a skills-based subject becoming too theory-driven. However, learners must continuously be exposed to life-skills opportunities which can be executed in real-life situations.

Gawande and Al-Senaidi (2015:210) concur with Collins (1998) and posit that situated learning environments provide four values of situated cognition as a theoretical basis for learning. Life Orientation learners who are exposed to diverse group settings, engage in problem-solving activities and learn how to structure the acquired knowledge appropriately within a particular context.

Learning is situated because it depends on the situation in which it takes place. Importantly so, situation learning environment provides access to expert performance and the modelling of processes, allowing learners to observe the task before it is attempted (Lave & Wenger, 1991). The capabilities and strengths of group investigations are more than adequate to provide a “window onto practice, allowing learners to look through as much as the actual practice can reveal” (Brown & Duguid, 1993:14). It is expected that Life Orientation teachers engage in teaching and see teaching as a practice in which the knowledge of teaching is in the practice of teaching (Brown & McIntyre, 1993: 54) and thus, allows for practical application of pedagogical subject knowledge in the Life Orientation classroom. Lave (1998) agrees that the focus of research is on the situation which allows a study of practice, such as in the classroom or the whole school. Shulman (1986:9) regards pedagogical content knowledge as a “particular form of content knowledge that embodies aspects of content most germane to its teaching ability”. The author indicates that subject matter knowledge goes beyond knowledge of facts and concepts in the discipline and involves an understanding of the structure of the subject, which includes substantive and syntactic knowledge. To put it simply, Life Orientation teachers today must have the ability to broaden the scope and depth of learners’ understanding in constructing

knowledge in a socially constructed environment (Kleickmann *et al.*, 2013:92; Krauss *et al.*, 2008:717).

Teachers with limited subject content knowledge of the subjects find it difficult to effectively respond to learner concerns and to clarify any misconceptions in their understanding of the subject content and cognitive-challenging learning situations (Gama, 2015:41; Hill, Ball & Schilling, 2008:372). Taking this into account, the researcher intended to explore the Life Orientation teachers' pedagogical subject content knowledge on implementing group investigation. It is the researcher's view that group investigation must be thoroughly planned by the Life Orientation teacher to make sure that learners execute the group task independently. Group investigation exposes learners to experience inquiries at first-hand, to make their own analysis of a situation or to how to solve a problem and present their own ideas to the rest of the group.

In the next section the applicability of placed-based learning theory, as another component of the SCCT framework, is discussed.

2.6.3 Placed-Based Learning Theory

The basic principles of placed-based learning (PBE) theory are particularly apparent in John Dewey's progressive education philosophy, which emerged at the end of the 19th century, overlapping with other educational movements (Kleederman, 2009:27). Placed-based learning theory refers to the place or context where learning should take place and also considers the culture and history in an integrated natural setting where knowledge can be constructed (Sobel, 2004:7). Dewey articulates the importance of instruction and subject matter to be what is seen and felt and loved by the learner. This life experience reminds one of the previously-mentioned learning theories; a community of practice learning theory and situated learning theory where the interrelatedness of these theories demonstrates a common thought, where learning is not constituted separately from the social world but is a process of becoming a member of a sustained community of practice. The researcher opines that it is important that schools become learning centres of the community where Life Orientation learners can identify needs within the community. On the other hand, the distinct factor among the two learning theories (situated learning and place-based learning) is the idea of emphasis on culture, history and ecological on the side of place-

based learning. Learners will then be able to directly associate with these needs which means that the construction of new knowledge can be based on real-life experiences within the community. This will foster learner interest and enthusiasm and will ignite a positive behaviour to promote positive participate in the learning process. The former illustrates the relevance of placed-based learning theory and how it foregrounds group investigation as a cooperative teaching and learning approach in Life Orientation. Dewey expatiates on the latter, noting that the utilisation of 'life-terms', 'real-world' objects and examples in the classroom, are an important pedagogical tool in ensuring a long-lasting understanding of the material. As the learners' worlds expand, so should the curriculum with educational material being presented within a dynamic and changing system beyond the classroom.

The Life Orientation learner should understand that the world is not stagnant and should be prepared to adapt to change. As previously mentioned, learners take on the responsibility to ensure group success with each Life Orientation learner being equipped with his/her own capabilities, interests and attitudes to ensure the positive outcome of a common goal. It remains an essential feature of placed-based learning that the historical, cultural and the place where learning should take place, be taken into consideration in order for learning to take place. The learners thus use the new subject matter to their advantage and manage the challenges they would experience in real-life situations.

Placed-based-learning is rooted in the idea of 'learning by doing,' a value that Dewey's writing exemplifies. Placed-based education is a term which refers to those forms of pedagogy which seek to connect learning to the cultural, historical and ecological context in which schooling itself takes place. Dewey emphasises the importance of the social environment in which learning must take place and so Life Orientation learners must be able to use the new subject content and apply it in their real-life experiences. Learning in a social environment is the ignition to knowledge construction. If learners are to internalise this subject matter on their own, teachers need to conscientise learners on the subject content in order for them to apply it to their everyday life. Sobel (2004:7) posits that placed-based learning is a process whereby the local community and environment can be used to teach subjects across the curriculum real-world learning experiences improving learners' academic performances within the school context.

In addition, place-based learning occurs in an environment where tasks can be integrated across subject areas, providing the opportunity to detect whether the information is relevant or not. Furthermore, Smith (2002:3) attests that placed-based learning focuses on the incorporation of local knowledge, skills, issues on the curriculum and learning experiences of learners. Therefore, it means that in- and outside the classroom, the new subject content must assist the learners to face the challenges posed by society. This means that teachers of the 21st century must possess a good in-depth Life Orientation content knowledge to respond to learners' challenges, requiring them to apply various forms of teaching approaches to produce good results. Teachers must have a good understanding of the Life Orientation content that needs to be taught so that learners can fully conceptualise or interpret the content. Thus, teachers must have the ability to broaden the scope and depth of learners' understanding in constructing knowledge in a socially constructed environment (Kleickmann *et al.*, 2013: 92; Krauss, *et al.*, 2008: 717).

Preston (2015:44) refers to the values that first-hand experiences have for both teachers and learners. Involving learners in real-life learning situations could assist them in developing a greater understanding of the new learning material. Smith (2002:593) identified common characteristics of placed-based learning. These ensure incorporating a local problem, as outlined in the curriculum, using learners' life experiences or the knowledge gained from new life experiences and applying it effectively in a new learning context. In order for this to occur effectively, teachers should be up-skilled in their pedagogical Life Orientation content knowledge and skills when they are planning group investigation as a cooperative teaching and learning approach. Life Orientation teachers must be interesting, caring, competent and flexible and should have high standards of teaching, aligned with Rooth (2005:22) who postulates that as long as teachers who are not professionally qualified in the subject, quality teaching will forever be a dream and intended goals of the subject will remain abstract.

In the next section, the fourth theory in the SCCT framework, cooperative learning theory, is discussed.

2.6.4 Cooperative Learning Theory

Cooperative learning has its roots in the work of John Dewey (1961) who believed that learners must be allowed to exercise their freedom and promote democracy in schools, as well as good citizenship amongst learners. Koffka (1922), a gestalt psychologist, alleged that learners who participate in group work, learn to depend on each other to ensure that the group goals are achieved. These groups are not static because every group member enters the group with their own contributions and unique characteristics.

To begin with, it can be noted that many scholars and researchers have attempted to investigate the concept of group learning as a cooperative learning teaching approach (Johnson & Johnson, 2009; Mitchell, Montgomery & Holder, 2008). Cooperative learning strategy lends itself to small group activities for learners to meaningfully participate and understand the subject or context much better. On the other hand, learners experience interaction in which every team member is responsible for each one in the group and must ensure that everyone knows and understands the same content. Working cooperatively has become an essential attribute for learners to acquire and apply it effectively in life after school. The concept of cooperative learning refers to “classroom techniques in which students work on learning activities in small groups and receive rewards or recognition on their group’s performance” (Slavin, 1980:315).

Cooperative learning strives for a common and successful outcome, where each learner has the responsibility to ensure that everyone contributes to the advancement of the group performance. To support this view, Slavin (1990:12) classified six main characteristics of cooperative learning, namely, group goals, rewards, individual accountability, equal opportunities, team competition, task specialisation and adaptation to individual needs. What is prominent in this set of characteristics, is individual and group accountability. The whole group is held accountable for achieving its goals, but each member should be accountable for contributing their share of work. Thus no ‘free riders’ should be allowed to depend on the efforts of other group members. Groups with clear goals should be able to measure their progress toward attaining them with the individual efforts of each member. At this point, individual accountability will come into play. Each member’s performance is assessed and

feedback should immediately be given to the group and individual member. Teachers should enable the group to know which member needs more support and encouragement to improve performance in completing a specific task or needs help in some other skills (Johnson & Johnson, 2009:368). Group members are usually dependently motivated to prepare and participate during class and for success. The principle of interpersonal working relationships is based on the assumption that learners must develop the ability to work effectively in a group, which means, they must develop social skills. Intrapersonal skills involve learners possessing thought skills and processes and using both these to communicate effectively. It is therefore crucial for the Life Orientation teachers to acquire an in-depth pedagogical content knowledge to apply cooperative learning in the Life Orientation classroom. In applying group investigation as a cooperative teaching and learning approach, learners acquire inquiry skills through participation in practical investigations, which allows them to carry out activities of real-life situations. In short, when taking the former context into account, every member in the group should be able to contribute meaningfully and collaboratively taking responsibility for the success in achieving the group goal (Felder & Brent, 2001; Gagnon & Collay, 2006:105).

In South Africa, the Curriculum and Assessment Policy Statement (CAPS) (DBE, 2011a: 29) stipulates that projects or practical investigations must focus on features that include inquiry skills. There appears to be a consensus among science education scholars and education departments that practical investigations are pivotal to learners' development of inquiry skills. The role of learners in group work is vital and allocation of member duties allows learners must know what their role will be during group work.

Group investigation as a task specialisation method, assigns individual tasks to learners. Learners work on specific sections of a task and then has share with the rest of the team mates. Group investigation is based on four basic aspects which are investigation, interaction, interpretation and intrinsic motivation (Sharan & Sharan, 1994:98). Investigation starts with a multifaceted problem where the problem is presented to the class and investigation groups are formed. Learners investigate the problem to search for answers allowing the learners opportunity to construct knowledge through interaction and constructive communication. Interaction is where learners talk, help, support and make contact with one another in their groups. They

discuss their plan of inquiry, consult different sources of information and conclude their findings by making presentations to the class. Prominent to group investigation, Slavin (2010:7) explains that effective groups should involve basic teamwork and discussion skills. Cooperative learning allows learners the opportunity to determine what they would like to achieve at the end, based on their prior learning and knowledge, thus filling the gaps in their knowledge and understanding.

The implementation of group investigation in a cooperative classroom constitutes values for teaching (Baker & Clark, 2009:2). Firstly, the outcome of any cooperative learning activity is the expected knowledge, skills, values and attitudes to be achieved by the group members upon conclusion of the activity. Secondly, certain factors can play an important role in the structuring of the learning activity. The size of the group, the selection of group members or role assignment in each group is equally important in structuring the activity. Thirdly, during the cooperative learning process, it is important for the teacher to identify cooperative skills at an early stage since it is precisely this ability in the exchange of ideas and knowledge that determines the success of the group. In creating a cooperative learning structure, the teacher is expected to implement observation and intervention as monitoring instruments to ensure the successful implementation thereof. Lastly, it is important for the teacher to give continuous feedback to the groups in respect of their progress. Teachers should be transparent and open in their feedback to learners regarding their activities (Baker & Clark, 2009:2).

The use of social constructivist theory influences the current trend of learning in Life Orientation, which is to focus on project- and group-based learning as cooperative learning approaches. Vygotsky's theory (1978) is regarded as a brand of social constructivism because the theorist emphasised the critical importance of the social context for cognitive development. The constructivist view suggests that group investigation in Life Orientation provides a major opportunity for learners to be directly and actively engaged in learning, beginning with planning to conduct an investigation. Cooperative learning theory is one of the theories that has the potential to be directly linked to the socio-cultural constructivist framework of this study (Sharan, 2010:301).

2.6.5 The Socio-Cultural Learning Theory

The socio-cultural-learning theory serves as the foundation for a majority of the research studies reviewed that evaluated the possible relationship between the instructional setting and learner performance. The socio-cultural learning theory is based primarily upon the work of the Russian psychologist, Lev Vygotsky (1978: 68) who highlighted the social process of development, and to the contrary, Piaget (1980: 135) belief that learners discovered learning on their own (Donald et al., 2010:52). Indeed, the socio-cultural learning theory is one of the specific theories that foreground group investigation as a cooperative teaching and learning approach in Life Orientation.

The social-cultural-learning theory of Vygotsky (1978) espouses the creation of social learning contexts, in this case referred to as 'environments', which serve as a venue for learners to negotiate and co-construct knowledge (Isidro, 2018:20). The author alluded that this learning theory emphasises the contribution of the social environment and the learner's interaction with the environment to bring about change (that is, learning). This environment includes the learner's interaction with adults, peers and objects, which start out as part of the learner's 'outer world' and gradually gets transformed and absorbed into the learner's 'inner world'. Vygotsky believed that learning was an active, social process with independent of stages of development (Eun, 2008). He believed that as children begin to acquire language competence, that language stimulates cognitive development (Lantolf, 2008). Vygotsky also asserted that children begin to regulate their own problem-solving activities through the act of private speech or thinking out loud. Another assertion was that children move toward more individualised thinking through social interaction and that the role of the teacher becomes more important, taking a central role in the learning process. Through the use of modelling and other appropriate strategies, the teacher is able to clarify instruction when the child is confused. Little bits of information are woven into the child's existing concepts. In the eyes of Vygotsky, the teacher was just a broad entity but a peer or a tool could serve as a teacher (Vygotsky, 1978).

However, there are two important elements to Vygotsky's view of cognitive development. The first is the zone of proximal development (ZPD), central to Vygotsky's view on how learning takes place. Vygotsky (1978:86) described this zone

as, “the distance between the actual development level as determined by independent problem-solving and the level of potential development with more capable peers”. To put it simply, this is the area between what a child is able to perform independently and the ability to perform a more difficult task with assistance of a more knowledgeable peer or adult. Vygotsky further stated that internal developmental processes, resulting from learning, can only be activated “when the child is interacting with people in his environment and in cooperation with his peers. Once these processes are internalised, they become part of the child’s independent developmental achievement”. Slavin (2003:44) concurs with Vygotsky’s definition and indicated that a zone of proximal development is the level of development immediately above a person’s present level. When such a learner is helped through a zone slightly above their ability, the learner’s cognitive ability is allowed to expand. Taking this concept into account, learners will have a higher performance when working with a more capable learner.

The second element is scaffolding, a term first used in an educational sense by Wood, Bruner and Ross (1976:90), who described it as

a process that enables a child or novice to solve a problem, carry out a task or achieve a goal which would be beyond his unassisted efforts. This scaffolding consists essentially of the adult ‘controlling’ those elements of the task that are initially beyond the learner’s capacity, thus permitting him to concentrate upon and complete only those elements that are within his range of competence. ... It may result, eventually, in development of task competence by the learner at a pace that would far outstrip his unassisted efforts (Wood *et al.*, 1976:90).

Scaffolding is thus an interactive process in which children are assisted in acquiring knowledge or skills. Slavin (2003:44) posits that by using hints and pointers from teachers, parents and peers who have already grasped the desired concept, children are able to form their own path toward a solution and by doing this, eventually self-regulate, or think and solve problems without the help of others. Firstly, learners need to be led through thought processes and the process of asking questions. Vygotsky (1986) believed that a child’s thought process is developed through interaction with an adult. The teacher prompts the learner to deepen his/her thought processes through modelling. The question-and-answer method provides an opportunity for learners to

arrive at a possible acceptable answer. With greater teacher-learner interaction comes more learning as the teacher is more aware of what the learner knows (prior knowledge) and can attach the new learning to a pre-existing concept (Semmer & Al-Thandi, 2015:2). Therefore, knowledge, skills and prior experience creates the foundation for scaffolding. The use of language and shared experience is essential to successfully implementing scaffolding as a learning tool. Both ZPD and scaffolding focus on what the child can do with adult assistance and it is believed that the practice at the level of potential development would lead to learning and performing the task unassisted.

2.7 TEACHING AND LEARNING THROUGH DISCOVERY

On the other hand, Piaget emphasised teaching through discovery, by challenging the child's abilities and using concrete experiences, observing children and their interactions within their environments. Piaget believed that ideas and concepts cannot be communicated intact from teacher to learner. The author concurs that the learner must construct his/her own knowledge derived from concrete experiences. The teacher's role is essentially viewed as a facilitative one and the teacher must not coerce or be authoritative. Furthermore, Piaget did not view the role of the teacher as important (Piaget, 1952). His theory of cognitive development emphasised that language acquisition is influenced by general cognitive attainments. As children explore their environment, they interpret and ascribe meaning to the events they experience. The child's need to interact with immediate surroundings and to manipulate objects is critical to language and cognitive development. From a Piagetian view, language reflects thought and does not necessarily shape it (Vacca et al., 2006). On the same note, Semmer and Al-Thandi (2015:2) argue that those conscious "general cognitive attainments" postulated by Piaget do not offer a comprehensive explanation into the dynamics of children's cognitive development as other processes to that are much more specific, associative and unconscious, are ascribed equal importance.

In summation, social interactions are deemed important from both Piaget and Vygotsky's views, but for different reasons. For Piaget, children's social interaction with their peers are a rich source of cognitive conflict which produces a state of disequilibrium that stimulates the creation of more powerful domain-general

structures. Vygotsky on the other hand, believes that social interactions are important because they lead to the appropriation of cultural developed skills and functions. For a clearer picture, children's interaction with adults enable them to acquire speech where they master higher mental functions. Therefore, social interactions are important for Vygotsky because of what children take from them, and for Piaget because of what children make of them.

2.8 TEACHING LIFE ORIENTATION IN A SOCIO-CULTURAL CONTEXT

From an educational perspective, teaching Life Orientation is about the holistic development of the learner in order to produce effective citizens in societies, underpinned by socio-cultural learning theory where learning is a social, inter-personal and integrated process in which every participating member mutually benefits from the learning environment. This means that the teaching of Life Orientation should involve learner-centred, active learning; therefore, Life Orientation teachers should search for effective cooperative teaching and learning methods to include all learners, promote inclusivity in the classroom and enhance the process of learners' cognitive development. Social interaction leads to the development of learners' higher cognitive functions; however, important learning occurs through social interaction with a skillful educator, who may model behaviour and provide verbal instruction for the learner (Vygotsky, 1978:68), which is referred to as co-operative or collaborative dialogue. Learners become involved in different aspects of social interactions within the classroom whereby skills like gathering information, collaborating, discussing or opposing one another are learned. It is here that learners will first try to make meaning of the new information that is been encountered in social relations.

As previously mentioned, learning should be constructed within a social environment whereby the learner learns and the teacher teach. However, there is a shift from a traditional method of teaching and emphasis is placed on the relationship between the teacher and the learner (Vygotsky, 1978). This interaction allows for a teaching-learning conversation to develop between the teacher and the learner and for the teacher to take on various roles. Within the Life Orientation classroom, the teacher's role is to establish a social context, fulfil the role as an expert who can guide learners into adopting cognitive strategies such as self-testing, articulating understanding, asking probe questions and reflection and pairing a more competent learner with a

less competent learner. The intention is to strengthen the capabilities of the less competent learner so that both has an equal opportunity when it comes to performance.

The teachers establish opportunities for collaboration on difficult problem-solving tasks that offer support to learners who are struggling with the material. In Vygotsky's view, the Life Orientation teacher has the task of guiding and directing the child's activity. At first the teacher assumes the responsibility for the problem-solving process, then gradually moves the accountability to the learner. It is important to emphasise that the teacher collaborates with the learners while providing support and direction. Learners learn the skill to be confident and to be able to identify themselves with the teacher with regards to the behaviour and praxis. Therefore, learners must work together to assist each other or socially interact with one another in order to collaboratively achieve success. Each learner may contribute only partially in completing a task but this partial knowledge from each member combines together under the teacher's supervision and guidance to achieve complete understanding and accomplishment of the task

Social constructivist strategies are known to promote student-centred learning, where the teacher helps learners discover their own meaning instead of lecturing and controlling all classroom activities. The classroom, in this case, is the social context for learning, and an environment that allows learners to develop together, think and draw knowledge from each other. Subsequently, new skills are developed as learners interact and communicate with each other in the learning process. The social interaction development must reveal independent problem-solving and thinking skills or higher order thinking skills (Eun, 2008: 139-140). Learning awakens a variety of developmental processes when learners are socially and actively involved in the learning process (Vygotsky, 1978). In applying group investigation as a teaching approach in Life Orientation, researcher's view is that learning is a social act and using the physical Life Orientation classroom as a workspace for peer teaching, collaboration, and small group instruction can create the condition and atmosphere for effective participation. Thus, the classroom becomes a community of learning.

2.9 CONCLUSION

In this current chapter, the discussion revolved around the triangulation of theories to form the socio-cultural constructivist theoretical (SCCT) framework. This framework underpins the Life Orientation teaching and learning process where the learner and the teacher are considered active participants. Most importantly, is that the context is regarded as an important contributory factor in the type of teaching rendered to Life Orientation learners. This theoretical framework is supported by five major learning theories, namely, communities of practice learning theory, situated learning theory, placed-based learning theory, cooperative learning theory, and socio-cultural learning theory. The researcher is of the view that this framework can provide insights into preparing Life Orientation learners working and interacting with fellow classmates to achieve a common goal and. However, in this study, Life Orientation teachers' subject knowledge and pedagogical content knowledge will indicate how effectively group investigation is implemented as a teaching approach and whether there will be a need for further professional development.

The following chapter will outline the historical background of cooperative learning, the conceptualisation of group investigation, the nature of cooperative learning, cooperative learning strategies, group investigation as a cooperative learning and teaching approach, the value of cooperative learning, benefits of group investigation, challenges of group investigation, teachers' pedagogical knowledge, subject matter as a didactic component of teaching Life Orientation and lastly, teaching and learning approaches in Life Orientation.

CHAPTER 3

REVIEW OF THE LITERATURE

3.1 INTRODUCTION

The purpose of this chapter is to review literature related to group investigation as a cooperative learning and teaching approach. A possible explanation of why things happen is provided by theories, which positions the research in the discipline or subject in which the researcher is working (Henning, Van Rensburg & Smit, 2004). In this study, the exploration of how group investigation can be used in teaching of Life Orientation is grounded in the social constructivist theory. Internationally, there has been a strong movement away from providing segregated education facilities for those with different learning needs to enabling all learners to be educated within the same regular school system (UNICEF, 2007). Inevitably, this has challenged the curriculum and pedagogical approaches that have been traditionally employed in formal schools. The focus of a 'one school for all' approach, therefore, requires schools to create effective learning environments.

The use of group investigation as a cooperative teaching approach is not a new phenomenon in the classroom. It mainly depends on the effectiveness of the method applied. Many factors influence student achievement and teacher efficacy at the secondary level. Academic standards and expectations are always at the forefront of school systems. Academic expectations are created and maintained by students, parents, teachers, and school leaders.

A brief historical background of cooperative learning as a technique is initially given and then, a conceptualisation of Student Teams-Achievement Divisions (STAD) as a cooperative learning technique is discussed. The nature of cooperative learning is discussed and various strategies of cooperative learning are presented. A further section presents discussions on group investigation as a cooperative learning and teaching approach. Thereafter the value of cooperative learning in enhancing teaching and learning outcomes followed by its benefits and pitfalls. Final sections of the chapter focus on teachers' pedagogical knowledge of group investigation as a teaching and learning approach subject matter as a didactic component of teaching Life Orientation

and finally, teaching and learning approaches to Life Orientation being used at schools.

3.2 HISTORICAL BACKGROUND OF COOPERATIVE LEARNING

Most of the original theories of cooperative learning have their roots in social interdependence and Lewinian field theory (Nikou, Bonyadi & Ebrahimi, 2014). Theorising on social interdependence began in the early 1900s when one of the founders of the Gestalt School of Psychology, Koffka, proposed that groups were dynamic wholes in which the interdependence among members could vary. In the 1920s and 1930s, one of Koffka's colleagues, Kurt Lewin, refined the author's notions while stating that

the essence of a group is the interdependence among members (created by common goals) which results in a group being a "dynamic whole" so that a change in the state of any member or subgroup changes the state of any member or subgroup. For interdependence to exist there must be more than one person or entity involved, and the persons or entities must have impact on each other in that a change in the state of one causes a change in the state of the others (Lewin, 1935).

In the 1940's one of Lewin's students, Mortan Deutsch (1949), extended Lewin's reasoning about social interdependence and formulated a theory of cooperation and competition (Johnson & Johnson, 2010). Deutsch conceptualised three types of social interdependence, namely positive interdependence, negative interdependence and no interdependence, explaining that the type of interdependence structured in a situation determines how individuals interact with each other which, in turn, largely determine the outcomes. Positive interdependence tends to result in promotive interaction; negative interdependence tends to result in oppositional congruent interaction and no interdependence results in absence of interaction.

Van Wyk (2007) reports that research studies in the 1950s on cooperative instructional strategy, focused mainly on the effects of goal structures on group coherence. Liao (2006) concurs that during the 1960s, research interests on cooperative instructional strategy heightened especially in the United States when public schools were forced

to integrate causing educators to seek ways to construct social integration among learners from diverse racial backgrounds, and to help improve the minority learners' academic performance. In the 1970s, research efforts in cooperative instructional strategy focused largely on the establishment of interpersonal relationships among diverse ethnic groups (Masoabi, 2015; Nwosu, 2013; Van Wyk, 2007).

3.3 CONCEPTUALISATION OF GROUP INVESTIGATION AS A COOPERATIVE TEACHING AND LEARNING APPROACH

Van Wyk (2007:151) explains that it is imperative to zoom into the classroom settings at school to determine which teaching technique can enhance teaching and learning in diverse school settings. The effective application of group investigation as a teaching-learning approach provides an authentic means to cross and strengthen the boundaries between teaching skills needed by the teacher and the potential of learners. Therefore, learners will learn skills to work independently, be responsible for their own learning and work towards the group's success. Van Wyk (2007:151) postulates that new teaching methods have become essential features in delivering of content and by doing so, it will promote effective teaching in the classroom; however, in the South African context, teachers are still struggling with the effective implementation of group work.

Cooperative working groups acquired its roots in the group investigation (GI) model of cooperative learning, a teaching methodology that implements long-term projects involving problem-solving (Slavin, 2008). Group investigation is comfortably embedded in Life Orientation as a school subject which deals with school-based assessments such as projects, source-based tasks, written assignments, research, and portfolios (DBE, 2011a:27). This allows for a wider range of assessment that can be used with a variety of tools. Group investigation is a successful and extensively researched cooperative learning strategy that involves task specialisation and the successful implementation of it enhance learners interest and motivation for learning (Mitchell *et al.*, 2008:394). Sharan and Sharan (1990:17) allude that it is rooted in the ideals of Dewey (1927:143) and further developed by Lewin and Thelen (1960). This method twins a democratic foundation with the dynamics of academic inquiry and although it poses challenges for teachers in terms of structure and evaluation, group

investigation nonetheless offers - learners the opportunity to take ownership of their own learning and to demonstrate their knowledge and understanding. Various definitions of cooperative learning have emerged. Johnson et al., (2014: 87) state that “cooperative learning is the instructional use of small groups so that learners work together to maximise their own and each other’s learning” and Ahsanah, (2015:57) states that “it is a teaching method whereby this approach enables learners to become interactive in the classroom which leads to positive interdependence and individual responsibility during social interaction in group work”.

To shed light on group investigation as a teaching approach is to focus on the group which enjoys participation in group activities with common goals and whereby all will benefit. What is evident from group work is that learners learn to accept responsibility on how they learn in a group and contribute to the success of the group. To achieve this, learners are involved in the completion of tasks in order to reach the desired academic outcomes (Slavin, 2011:344). Similarly, Nan (2014:1862) asserts that “cooperative learning is a kind of teaching strategy to develop the learners’ abilities to learn independently and autonomously in order to meet their need of learning in the form of group work” which leads to the idea that cooperative learning can improve active academic achievement and social skill development. Although learners have to work together on an activity, each learner has a specific goal to achieve and therefore cooperative learning as an instructional technique, allows them to achieve a shared common learning goal (Killen, 2007). There is a quiet difference between traditional group work and cooperative learning. Cooperative learning has specific components that guides the process of implementation, it has specific outcome goals with clear and specific instructions on the roles and responsibilities of each group member. In contrast, traditional group work provides no specific guidelines as the class teacher has to improvise on how to facilitate the process.

3.4 THE NATURE OF COOPERATIVE LEARNING

Johnson and Johnson refer to cooperative learning as

... a relationship in a group of students that requires positive interdependence (a sense of we sink or swim), individual accountability (each of us has to contribute and learn), interpersonal skills

(communication, trust, leadership, decision-making and conflict resolution), and face-to-face promotive interaction and processing (reflecting on how well the team is functioning and how to function even better) (2009:365-369).

Johnson and Johnson (2009:366) suggest five elements that mediate the effectiveness of cooperation and which should be present before cooperative learning groups can effectively. These five basic elements are positive interdependence, face-to-face promotive interaction, individual and group accountability, the appropriate use of social skills and group processing and are presented in Figure 3.1.

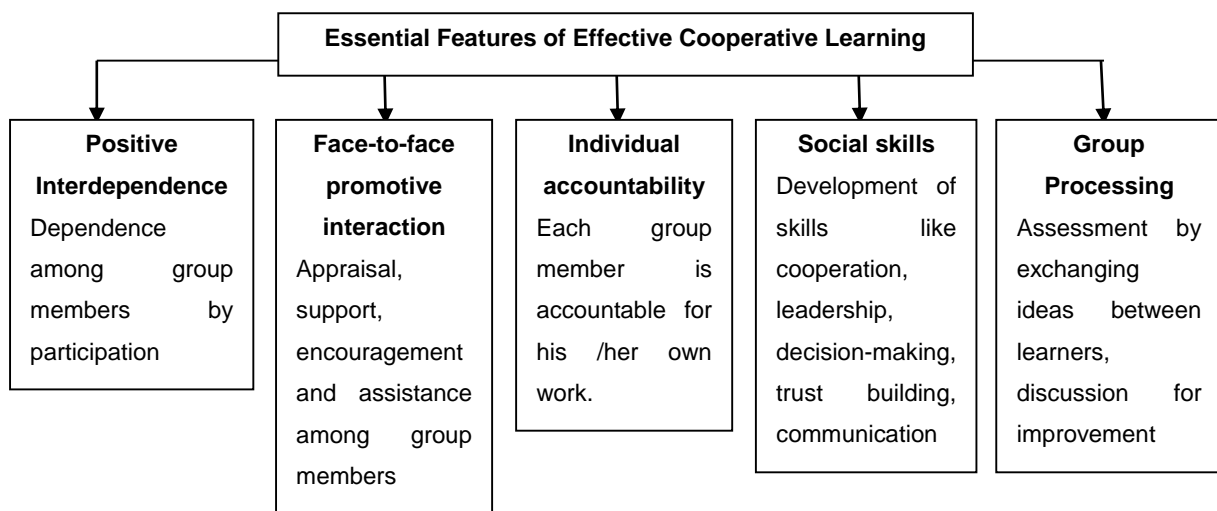


Figure 3.1: Essential features of effective cooperative learning

3.4.1 Essential Elements of Cooperative Learning in Group Investigation (GI)

The underlying features of cooperative learning as a teaching and learning approach are illustrated Figure 3.1 and are discussed in the sections below.

3.4.1.1 Positive interdependence

Schools, teachers and parents have promoted an “I, me, my” mentality in the students for many years. Students have always been told in schools to, “do your own work”, “keep your eyes on your own paper”, “sharing answers is considered cheating”, and the list can continue (Chen & Wang, 2013). The intention with cooperative learning is to change that by restructuring the reasons for students to work together. Indeed, Johnson and Johnson (2013:8), argue that “success of one learner is dependent on

the success of other learners.” In the context of cooperative learning, Van Wyk (2007) postulates that positive interdependence can only be created if the group members have common goals, the work is distributed among the members, information is shared among group members, and the group is rewarded jointly. Learners find themselves in an environment where the effort of an individual member is to the benefit and assistance of all members. Cognitive processes such as solving problems, holding discussions, challenging each other’s reasoning, supporting and encouraging efforts to learn (Johnson & Johnson, 2018:9) come into play.

Johnson and Johnson (2018:8) noted that positive interdependence can be structured in various ways as follows: firstly, positive goal interdependence where different groups focus on mutual goals whereby participants have an assigned material which they have to study. Groups will then be rewarded when they achieve the specific outcome. Secondly, positive reward /celebration interdependence where bonus points are given to members who meet the basic requirements. When the group performance builds on group rewards, the learners value the success of the group and therefore encouraged to help one another to achieve (Slavin, 2014:788). Thirdly, positive resource interdependence where groups work with limited resources which they have to share or resources distributed by the teacher, are put together at the end. Lastly, positive role interdependence where the teacher assigns each group member complementary roles. Positive interdependence exists when group members perceive that they are linked with each other in a way that one cannot succeed unless everyone succeeds (Slavin, 2011:6).

3.4.1.2 Face-to-face promotive interaction

The second element of cooperative learning is face-to-face promotive interaction. Promotive interaction occurs when members encourage each other’s efforts to achieve a common goal. In fact, Johnson and Johnson (2008) state that “students in CL groups are required to interact verbally with one another on learning tasks and goals, explain things, exchange opinions, teach others and present their understanding.” Group members encourage and facilitate each other’s efforts to accomplish the group’s goals, which in a sense enhances group cohesion. It becomes important that learners interact verbally with one another in working on the learning

tasks in their cooperative learning groups. If a positive learning environment is established, learners in the cooperative group work and learn effectively (Johnson & Johnson, 2014:845; Tran, 2013:101).

Despite the positions of many theorists, Tran (2013:102) argues that “the quality of interaction depends on the group size and the manner in which learners cooperate on their learning tasks. In addition, the quality of group interaction depends on the learning environment.” Slavin (2011:344) states that “if a positive learning environment is established, students in the cooperative group, work and learn together effectively.” In support the view of verbal interaction on learning tasks, Masoabi (2015) believes that cooperative learning becomes an academic support system and personal support system and that crucial cognitive developments and interpersonal dynamics occur in the process.

3.4.1.3 Individual and group accountability

The third essential element of cooperative is individual and group accountability which refers to the group being accountable for achieving its goals, but also that each member is accountable for their contribution and for the learning material. Learners now have the responsibility to ask for assistance and do their best to ensure that they learn as much as possible and to take care of one another (Johnson & Johnson, 2009). Individual responsibility leads to the dismantling of ‘coasting’ or ‘hitch-hiking’, and to curb the idea whereby some learners do most of the work and others take a free ride. Group accountability refers to the feedback given to the assessment of the overall performance of the group compare against a standard of performance. In support of this assertion Van Wyk (2007) explains that the purpose of any learning activity is to pursue maximum individual learning performance. Feedback mechanisms are necessary to determine each learner’s mastery level, if learners are expected to support and help one another. Johnson and Johnson (2009) recommend that individual accountability can be promoted through ensuring that groups are reasonably sized, each learner needs to be assessed on the learning, any member of the group should be ready to present findings to the entire class and in addition, interaction between members should be observed. Learners of one group can be tasked with asking other group members on their understanding of the new content and lastly, learners can be required to teach the new content to their group or other groups.

3.4.1.4 Appropriate use of social skills

The fourth essential element of cooperative learning is teaching students necessary interpersonal and social skills. These skills need to be taught by using techniques such as role playing and modelling in group activities in order to apply cooperative learning with success. Group members must learn to trust and know each other, communicate accurately within the group, accept and support each other and resolve conflict constructively (Johnson & Johnson, 2009:368). Cooperative learning, compared with individualistic or competitive learning, is more complex because it requires students to engage in learning tasks and work together. Therefore, social and interpersonal skills, such as listening attentively, questioning and negotiating respectively need to be taught effectively so that learners can work at ease in their groups (Killen, 2007). Additional skills that need to be emphasised are how to manage the group, decision-making and how to solve conflicts. When the basic learning skills of interaction in cooperative learning groups are not taught, group members cannot work together effectively to complete their tasks (Johnson *et al.*, 2013:6). Non-compliance of these skills may lead to unsuccessful outcome of these activities.

3.4.1.5 Group processing

The fifth essential element, group processing, exists when group members reflect on how well they are achieving their goals and maintaining effective working relationships. Group processing helps to improve the effectiveness of the members contributing to the shared efforts to achieve the group's goals through reflection on the learning process (Johnson & Johnson, 2009:369). Johnson and Johnson (2018:9) defined group processing as reflecting on a group session to describe what member actions are helpful or obstructive, and make decisions about what actions should continue or change. The purpose of group processing is to clarify and improve the effectiveness with which members carry out the processes necessary to achieve the group goals. In a similar vein, Masoabi (2015:75) establishes that careful and continuous analysis of effective group work can improve the desired group outcome. Feedback on participation can consequently reinforce group members' achievement through application of knowledge, new knowledge creation and positive group interaction and behaviour.

In summation, these five basic elements of cooperative learning can foster better achievement, good inter-relationships, positive self-esteem of group members and better learning skills. Learners learn to respect each other and display better towards the subject (Johnson & Johnson, 2008; Slavin, 2011).

3.4.2 Stages of Implementing Group Investigation

Group investigation, as a teaching approach, enables learners to become interactive in the classroom which leads to positive interdependence and individual responsibility during social interaction in group work (Ahsanah, 2015:57). Group investigation as a technique is implemented as follow:

3.4.2.1 Class determines sub-topics and organises into research groups

The teacher's main role at this stage is to facilitate the learners' growing awareness of what interests them most about the topic and what they want to investigate. Learners who are interested in working in the same sub-topic can form groups together and develop questions for investigation. Sometimes, the teacher may need to intervene in order to strike a balance between the heterogeneity of the group and the interest of the learners (Sharan, 1990:97-113).

3.4.2.2 Groups plan their investigations

Learners plan together what they want to investigate cooperatively and develop their research questions related to the sub-topics they have chosen. They must think of some ways to collect the relevant material, information and resources. Learners will now divide the work among individual members or pairs. The teacher moves between the groups and offers help to those who need it. Moving from group to group gives the teacher a chance to see if any groups are having difficulty cooperating (Sharan, 1990:97-113).

3.4.2.3 Groups carry out their investigations

At this stage, each group or pair carries out the plans [investigation] of their assigned work. Groups have to apply their application, analysis, synthesis and evaluation skills

to work through the information collected. Though each member has their own work, they have to work closely together and help the other group members whenever possible. Learning should involve a variety of activities and skills and should lead learners to a variety of sources inside and outside of school. The teacher's role is to inform, direct, guide and suggest different approaches. When work has been completed their work, each member has to write a summary of their findings which contribute to the group's findings (Sharan, 1990:97-113).

3.4.2.4 Groups plan their presentation

Groups decide which of their findings to share with the class and how to present them. It requires learners to select those important facts from their investigation and present them in a clear and concise way so that all learners in the other groups can learn from them. The teacher now organises and coordinates the groups' plans for their presentation. The teacher continues in the role of advisor, helps the group where needed and reminds them that each group's plan should involve all its members. Alternatively, in order to facilitate the presentation, a steering committee can be formed from the representative of each group for coordination. The committee listens to what and how the groups present and gives advice for improvement (Sharan, 1990:97-113).

3.4.2.5 Groups make their presentations

The groups are invited to present their findings to the class. The teacher may consider to teach learners the relevant presentation skills, such as speaking clearly and concisely, capturing and maintaining the attention of the audience by avoiding long lecturing, as well as involving the whole class in tasks for interaction. The class is reconvened so that each group can shed its specific light on the common concern. The teacher serves as coordinator of the group's presentation. At the end of each presentation, the teacher leads a short discussion and the audience comments on the presentation (Sharan, 1990:97-113).

3.4.2.6 Teacher and learners evaluate the projects

The achievement of each learner and the group can be assessed. Evaluation focuses on the knowledge acquired in the course of the investigation as well as on the

experience of investigating. The question should not only test factual information, but also higher-level thinking skills of learners. Both aspects of evaluation may be conducted on an individual, group or class basis. The teacher's role as evaluator does not begin at the last stage. Throughout the investigation the teacher is in a unique position to evaluate what the learners are learning, how they are getting along with their groups, and what the specific strengths and weaknesses of individuals are. Formative evaluation takes place at each stage (Sharan, 1990:97-113).

3.5 COOPERATIVE LEARNING STRATEGIES

Cooperative learning, due to its ancient pedigree and positive outcomes, has been a focus of research in the past century. Studies involving cooperative learning illustrate it as one kind of student-centred learning approach which has emerged as an internationally important area of social science research among researchers (Slavin, 2011). Many studies have been conducted in different settings of education, using different kinds of cooperative techniques (Masoabi, 2015; Alexander & van Wyk, 2014; van Wyk, 2007). The cooperative learning approach entails different teaching techniques of which the researcher will limit the extent of these approaches.

Masoabi (2015:86) grouped cooperative learning into two categories: firstly, the student teams learning methods including Student Teams-Achievement Divisions (STAD), Teams-Games-Tournaments (TGT), Team Assisted Individualisation (TAI) and Cooperative Integrated Reading and Composition (CIRC); and secondly, the task specialisation methods including: Jigsaw, Group Investigation (GI), Learning Together (LT), Academic Controversy and Co-op.

3.5.1 Student Team Learning

Student team learning is a set of cooperative learning techniques developed at Johns Hopkins University and evaluated in schools all over the United States (US). The idea behind the Student Team Learning (STL) techniques is that when students learn in small, carefully structured learning teams and are rewarded based on the progress made by all team members, they help one another learn, gain in achievement and self-esteem, and increase in respect and liking for their classmates, including their mainstreamed classmates of other groups. Masoabi (2015:86) adds that "student team

learning methods emphasise or focus more on the use of team goals and team success, which can only be achieved if all team members learn the objectives being taught”.

3.5.2 Student Teams-Achievement Divisions (STAD)

According to Van Wyk (2007), STAD is one of the simplest and most extensively researched forms of all cooperative learning techniques, and could be an effective instrument to begin with for teachers who are new to the technique. Learners work as members of a team competing against other teams in a section of a learning unit to accomplish specific goals over time. The faster the team works to accomplish the task, the better the results. STAD students are assigned to four- or five-member learning teams that are mixed in performance level, gender and ethnicity (Slavin, 2010). Each member contributes to the overall goal of the team to be achieved on the task. Each member must learn a specific section of the topic and compete with other teams. The purpose of STAD is to build good relations, enhance cooperation and increase social interaction among groups to complete as teams on a topic.

3.5.3 Task Specialisation Methods

Yusuf, Natsir and Hanum (2015:105) concur with Borich (2007) who posit that the primary goal of task specialisation methods during cooperative learning is to create an activity structure whose end product depends on the sharing, cooperation and collaboration of individuals within the group. According to Masoabi (2015:89), “task specialisation methods of CL use techniques where learners are assigned an individual task on the section content that they need to thoroughly prepare for contact sessions with other group members”. Finally, individual members explain their sections of speciality to the other group members (Masoabi (2015).

3.5.4 Group Investigation

Sharon and Sharon (1992), who developed group investigation at the University of Tel-Aviv, advocate that group investigation is a general classroom organisation plan in which students work in small groups using cooperative inquiry, group discussion, cooperative planning and projects. In this method, groups consist of two to six

members. The unit that is been studied by the whole class, is broken up into sub-topics with individual tasks. Groups prepare reports that must be presented or displayed to communicate findings to the entire class.

3.6 TYPES OF COOPERATIVE LEARNING GROUPS

The aim of cooperative learning is to establish a learner-centred approach where learners can learn from each other. The teacher performs the duty of guide or facilitator, other than the transmitter of knowledge. Learners become active participants in the learning and teaching environment, which on the other hand provides teachers with a framework experience on how they can positively influence the lives of these learners (Van Wyk, 2012:188).

Various studies on cooperative learning (Johnson & Johnson, 1995: 018; Johnson & Johnson, 2003:786; Hänze & Berger, 2007:30) continue to strengthen the view that in a cooperative learning environment, there is positive interdependence among groups' goal achievement. Each member is aware that the only way to attain the learning goal is by the group working together to reach the learning goal. Four types of cooperative learning, namely, formal cooperative learning, informal cooperative learning, cooperative base groups and academic controversy are recommended.

According to the explanation above, it should be understood that the teacher and learners have to be trained in the implementation of cooperative learning methods in order to achieve requirements, such as organisation and preparations to achieve expected processes and end results like positive interdependence and group goals.

3.6.1 Formal Cooperative Learning

During formal cooperative learning activities, learners work together for one class period to several weeks with the aim of achieving a common goal, completing tasks together that include solving a set of problems. From the literature, it is evident that learners have to complete themes in the curriculum like conducting an experiment or an entire project (Johnson & Johnson, 2014:842). For successful formal cooperative learning to occur, a number of steps should be followed. Firstly, it is important that the

objectives for the lesson every lesson is specified. This include the academic objectives that specify which content or concepts are to be learnt as well as a social skill objective which indicates the interpersonal skill that is to be used during the lesson. The second step requires decisions about how the learning groups is to be structured. At this point, the teacher should have decided on the size of the group and which role is to be assigned to the learners. The learning and teaching support material (LTSM) should be arranged as well as the classroom arrangement. Thirdly, the task is explained ensuring positive interdependence and individual accountability. The teacher explains the concepts and strategies that the learners should be applying and mastering. The success criteria should also be presented. The fourth step in formal cooperative learning groups occurs as the teacher takes on a monitoring role on the operations within the groups and intervenes where learners need assistance in academic learning. The importance is that collaboration and social skills of learners conduct in groups are emphasised. The last step is evaluating learners' performance and collaboration of members in their groups (Johnson & Johnson, 2018:5).

The procedures that are been explained in the above paragraph gives the teacher clear guidance on how group investigation can be applied in a Life Orientation classroom, for example. The lesson content should be thoroughly prepared with clear and realistic objectives. Learning support material and classroom arrangements must be prioritised in advance, highlighting the importance of pre-planning. It thus becomes easier for the teacher to assess the progress of the learners and to evaluate their performance.

3.6.2 Informal Cooperative Learning

Informal learning groups have the same objective as formal cooperative leaning groups as working together to achieve a common goal. They are temporary groups with a short lifespan. A demonstration can be used during the lesson presentation to focus learners' attention on the material to be learnt, set a conducive learning environment and set expectations of to what is to be covered during the lesson presentation. The learners' cognitive processing of the taught material should be ensured (Johnson & Johnson, 2014:842).

During direct teaching, the instructional challenge for the teacher is to ensure that learners do the intellectual work of organising and explaining material, summarising and integrating it into existing conceptual structures. This material then relates to previous knowledge or experiences of the learners. Informal cooperative learning groups are arranged so that learners engage in three- to five-minute turn-to-your-partner discussions, in between lecture demonstrations and closing instructions (Johnson & Johnson, 2018:6).

3.6.3 Cooperative Base Groups

Cooperative base groups are long-term, heterogeneous learning groups with stable membership. The main aim of the base groups is to give the support, encouragement and assistance so that each member needs to make academic progress. Thus, a member should attend classes, complete assignments and have enough time to learn. Base groups also help one another develop cognitively and socially in healthy ways and to hold one another accountable for achieving success (Johnson *et al.*, 2004:8).

Base groups meet on a daily basis in the primary school and twice a week in secondary schools or whenever convenient. They are permanent, lasting from one to several years. This develops long-term caring peer relationships necessary to influence members consistently to work hard at school (Johnson & Johnson, 2014:842). They further contend that groups meet formally to discuss the academic progress of each member, provide help and assistance to one another and make certain that each member completes tasks and progresses well through the term. Members of these base groups also meet informally within and between classes, discussing tasks and helping each other with homework.

3.6.4 Constructive Controversy

Constructive controversy exists when someone's ideas, opinions, information or conclusions are not the same as those of another, and the two seek to reach an agreement (Johnson & Johnson, 2009:41). For individuals to promote each other's success, is disagreement and augmentation among members of cooperative groups when they have to make a decision or come to an agreement. Learners are randomly divided into heterogeneous cooperative learning groups with usually four members

per group. The teacher assigns each group with a task on which to write a report successfully. Each cooperative group is then divided into two with one side taking on the con-position on the task and the other the pro-position. The cooperative goal is to reach consensus on the issue at hand, by synthesising the best reasoning from both sides and writing up a quality group report. (Johnson & Johnson, 2018:7).

The underlying effect of using formal cooperative learning, informal cooperative learning, base groups and constructive controversy in combination, provides an overall structure for teaching and learning. In the researcher's opinion, teachers with strong teaching abilities and effective teaching strategies are more self-confident and can have a positive influence on their learners. Furthermore, they do not find it difficult to differentiate in the feedback to learners. Van Wyk (2012:188) and prominent scholars like Ellet and Teddlie (2003), align with the opinion of the researcher, that the behaviour of teachers towards a task and the use of innovative ideas impacts on the efficacy of teaching may lead to positive effects on student learning. Sharan (2010:306) asserts that teachers must prepare themselves thoroughly to ensure that cooperative learning succeeds. Teachers must commit to spending time in preparation with repeated practice and set up a support structure whereby they give regular feedback. There is however, a need for change in the role of teachers and the kind of interaction between the teacher and learners in order for the value of cooperative learning to be realised.

3.7 STRATEGIES TO ENSURE POSITIVE OUTCOMES IN COOPERATIVE LEARNING

It is evident from the literature that many scholars such as Johnson and Johnson (2013) and Slavin (2014), favour cooperative learning. They assert that learners in small groups are able to master material better, develop good self-esteem and accept other learners much more easily. Learners who prefer to work on their own and who are not exposed to cooperative learning will find it difficult when they have to work with fellow learners in cooperative learning groups. However, the outcomes of cooperative learning for the enhancement of teaching and learning are guided by a variety of techniques and strategies.

3.7.1 Developing Group Interaction

Learners working in peer groups is an element of the cooperative learning process and is an effective approach during a classroom activity where learners are actively involved in the learning process (Booyesen & Grosser, 2008:379). This process is sometimes steered but the interaction of members in the group requires high quality of teaching and learning because of the diverse social backgrounds, ability and skill levels of members. The teacher as the facilitator, needs to take on the role to guide and direct the group through the process by asking pertinent question and drawing out ideas from the group. The teacher focuses on how the members participate, ensuring that all members are actively involved, that the workload is shared and that learning is taking place.

3.7.2 Acknowledging Individual Learning Performance

The purpose of any formal or informal learning activity is to ensure that learners participate in the teaching and learning and are able to demonstrate an understanding on the given content, which directs and determines learners' mastery levels. In a group situation the teacher should ensure that each member's voice is heard and that each contribution to the discussion, or the completion of the task is acknowledged. A contributing aspect of cooperative learning as a teaching approach is learners supporting and helping and acknowledging each other, even though it is the individuals' responsibility to ensure success of the group (Alexander & van Wyk, 2014:692).

3.7.3 Developing a Positive Attitude

The researcher posits that a positive attitude and good work ethics can foster the successful implementation of cooperative learning as a teaching approach. Without such positive behaviour it will remain a challenge to achieve the intended goal. Effective implementation of cooperative learning as a teaching approach depends on developing a positive attitude towards such a teaching strategy within the classroom. If not, it will compromise the teaching approach and will not achieve the intended goal. However, teachers with high motivation levels will achieve much more success when cooperative learning is applied with a specific purpose and plan to achieve the desired

outcome. Best teachers are interested, competent, caring, encouraging and flexible, but still have demanding standards (Berns, 2007:256). The positive attitude of the teacher will transfer to the learners as they become involved in a well-planned cooperative learning task.

3.7.4 Enhancing Positive Attitudes and Relationships Among Learners

Cooperative learning promotes mutual respect and an understanding of learner diversity. The Curriculum and Assessment Statements (CAPS 2011a:5) addresses core values such as human rights, inclusiveness, and environmental and social justice, which is enshrined in the Constitution of the Republic of South Africa, Act 108 of 1996. Teachers are therefore required to teach the contents in a learner-centred way and thus learners become actively involved in the construction of knowledge during the learning process where they receive support from the group within a group context (Johnson *et al.*, 2014:843).

3.7.5 Creating a Culturally-Sensitive Classroom

Despite the challenges of sustainable implementation, cooperative learning is a vibrant part of the global education stage. Sharan (2010:310) proclaims that intercultural education should not only be concerned with what to teach but how learners learn. Classrooms accommodate learners with diverse cultural backgrounds, with Portera (2008:484) regarding them as resources that accommodate a variety of religious and ethnic groups. Cooperative learning paves the way for learners to respect everyone's contributions in a learning environment and to value themselves and others. The intercultural classroom can support learners in building a network between the subject content and their personal beliefs. Teachers who are interested in the learning about the various cultures and traditions of their learners can easily sensitise learners in a cooperative learning classroom. Everybody in the culturally-sensitive classroom can then develop values for the diverse cultural environment of learning. Life Orientation teachers should demonstrate sensitivity towards diverse cultural contexts, where norms, beliefs and traditions are customary in a society (Donald *et al.*, 2002: 24).

3.8 BENEFITS OF COOPERATIVE LEARNING

Cooperative learning approach allows learners to engage in different sections of a given topic and in these small groups, interpret, examine and analyse a phenomenon at hand (Sharan, 1992:1). Benefits of cooperative learning were reported by Adiansyah and Muh.Amin (2017:1) who determined that the effectiveness of group investigation and scientific approach to the thinking ability of learners of a Grade 11 class in Indonesia successfully improved the learners' critical thinking skills, with many factors contributing to the success of learning. The improvement in learners' critical thinking skills after group investigation, revealed that the group investigation learning model allows learners to be more active and more responsible for solving problems. When learners are involved in group inquiry and are challenged with an academic problem, learners' cognitive abilities, critical thinking and decision-making skills become essential elements required in group investigation and through discussion and interaction with peers and the given material, these skills are acquired and developed.

Results were evident from Mitchell *et al.*, (2008: 392) when they examined the literature on cooperative learning. The advantage for learners who participate in group work activities is that they develop a value system while learning. They learn to respect each other and be open to the viewpoints of others. This builds on positive attitudes and behaviour and a way to develop conflict resolution skills and to accept members during such group interaction. The fact that learners are exposed to different points of view, allows them to construct their own meaning and understanding and create opportunity for discussion and reflection.

The benefits of cooperative learning are not only seen with learners, but with the teachers themselves, as they also gain from implementing cooperative learning methods, specifically group investigation, in their classrooms. Firstly, lesson planning is highlighted as one of the noticeable improvements that occurs, secondly there is time to observe how learners interact and have an opportunity to assist individual groups, which in turn enables the teacher to attend to each learner in the classroom (Masoabi, 2015: 95). Cooperative learning also offers the teacher the opportunity to observe the learners at work within the group and thus the opportunity for assessment during the process and assessment after completion of the task during presentation.

3.9 CHALLENGES OF COOPERATIVE LEARNING

Active learning in general and cooperative learning in particular can make learning effective and interesting if it is applied in a systematic approach and well-planned manner. Cooperative learning by itself does not bring improvements in learning unless it is implemented properly. However, the practice of cooperative learning has a number of challenges.

Baloche and Brody (2017:275) highlighted three aspects against cooperative learning strategy in schools, *viz-a-viz* efficacy, theoretical relevance and policy support. The authors assert that this strategy is not so generally accepted and implemented as a teaching approach at schools. Similarly, Ghaith (2018:400) attests that effective implementation of cooperative learning in particular, remain a challenge for a positive outcome. Challenges identified factors that affect the successful implementation of cooperative learning are the teachers' knowledge and the understanding of cooperative learning principles, learners' familiarity with and experience of cooperative learning and the time necessary for this approach (Moges, 2019).

This finding supports the view of Van Wyk (2007) who posits that implementing group work as a teaching and learning strategy, where learners interact in small groups, is not a once-off, but a continuous process. In order to gain sufficient knowledge on the correct implementation of cooperative learning, teachers must continuously and regularly practice cooperative learning procedures for successful implementation. Inadequate preparation and structuring of cooperative learning leads to the 'free-rider' effect, whereby some members do not contribute to the group's achievement of group goals as there would be little or no evidence on assessing the individual's accountability. This could be evident in poorly structured projects where a group has done one thing and ignored the other. To avoid this challenge each member's role should be clearly stipulated, evident and assessable so that the teacher can intervene appropriately in a helping and encouraging manner. If such challenge is not cultivated in time, it could lead to undesired disruptive behaviour during group sessions. In task specialisation cooperative learning methods, members are in danger of only understanding and acquainting themselves with the parts assigned to them. Other members may not properly share their findings with the team or feed the group with

wrong information (Masoabi, 2015:95), which means that learning outcomes are not entirely achieved. However, major challenges can be overcome if teachers are equipped with the relevant subject content knowledge and pedagogical content knowledge.

3.10 SUBJECT CONTENT KNOWLEDGE AND PEDAGOGICAL CONTENT KNOWLEDGE

Many studies have shown an international and growing focus on the command of content required for successful teaching. It has become known that it has inspired the attempt to characterise an effective teacher's knowledge, noting that the literature on the subject repeatedly argues that of inexperienced teachers, but that it is also more connected and integrated (Krauss *et al.*, 2008:717). Shulman (1986) Kleickmann *et al.* (2013: 92) assert that whenever teacher's knowledge can be identified, it will enhance successful teaching and learning strategies and positive learning outcomes.

Teacher knowledge is differentiated between subject content knowledge (SCK), pedagogical content knowledge (PCK), and general pedagogical knowledge (GPK) (Shulman, 1986). General pedagogical knowledge (GPK) is described as "those broad principals and strategies of classroom management and organisation that appear to transcend subject matter" (Shulman, 1987:8) and is used in conjunctions with subject content knowledge (SCK) and pedagogical content knowledge (PCK).

3.10.1 Teachers' Subject Content Knowledge

Teachers' roles are more than just to disseminate knowledge as it was apparent in the traditional teaching approach. Teachers of the 21st century must possess good in-depth subject knowledge to respond to learners' challenges. It requires Life Orientation teachers skilled in both subject content knowledge Teachers must have a good understanding of the content that needs to be taught so that learners can fully conceptualise or interpret the content. As a result, teachers today must have the ability to broaden the scope and depth of learners' understanding in constructing knowledge in a socially constructed environment (Kleickmann *et al.*, 2013:92; Krauss *et al.*, 2008:717). In addition to being competent in the subject matter, the holistic

development and the personal well-being of learners is regarded as a particular challenge of the curriculum (DBE, 2011a:5; Magano, 2011:125).

Subject content knowledge is the acquired and developed knowledge that a teacher possesses within their field of specialisation. Importantly so, teacher knowledge of the subject matter is at the heart of the professional competence (Ball, Thames & Phelps, 2008: 391). Shulman (1986:9) contends that the teacher “must not only understand that something is so, but the teacher must further understand why it is so”. Teachers, with limited subject content knowledge of the subjects they teach, will find it difficult to effectively respond to learners’ concerns and to clarify any misconceptions in their understanding of the subject content and cognitive challenging learning situations (Gama, 2015:41; Hill *et al.*, 2008:372). Subject content knowledge has a very important role to play because high-quality teaching rests on teachers understanding the subjects they are teaching, knowing the structure and sequencing of concepts, developing factual knowledge essential to each subject and guiding their pupils into the different ways of knowing. Teachers make use of their subject knowledge to organise and use the content more effectively for their students to understand, and it assists them in responding to the needs of learners who are struggling with the content.

It is not only the depth of a teachers’ subject content knowledge that ensures that learners are interested in the subject but the teachers’ passion for the subject which ensures significant learning and a means for effecting a change in behaviour. Research has found that development of subject knowledge of Life Orientation teachers during professional development was hindered by the fact that it did not address issues such as their personal experiences, their attitudes towards Life Orientation, Life Orientation curriculum delivery and the complex roles they play in dealing with challenging issues that learners face in the daily lives (Daile, Pillay & Fritz, 2014). To address these dynamics, it is recommended that ongoing training and professional development find mechanisms to best support Life Orientation teachers to ensure meaningful teaching of Life Orientation (Daile, Pillay & Fritz, 2014).

3.10.2 Teachers' Pedagogical Content Knowledge

Considering the advance thinking about teacher knowledge by introducing pedagogical content knowledge, Shulman (1987:15) acknowledged the importance of the development of subject matter knowledge into subject matter knowledge for teaching. Pedagogical content knowledge therefore is the integration of content and pedagogy and how it demonstrates an understanding to translate subject matter knowledge into a classroom with diverse learner background and ability (Shulman, 1987:15). Every teacher must acquire and be equipped with pedagogical content knowledge to teach the subject matter in such a way that it enables learners to develop a clear understanding of the new information. It also includes the different teaching strategies and approaches to be employed to accommodate learners in a diverse teaching setting (Kleickmann *et al.*, 2013:2; Shulman, 1986:9). The ideal is to clarify any misconceptions and misunderstandings and to improve learners' understanding on the new subject matter. In addition, a symbiotic relationship exists between subject content knowledge and pedagogical content knowledge. Thus, teachers must be on par with the respective subject content to be effective and proficient in curriculum delivery.

Strydom (2011:78) asserts that it is important for teachers to have a broad repertoire of teaching approaches. Despite the fact that they should be well informed about the subject matter, teachers should be able to differentiate and integrate the content of a lesson that will suit the diverse groups of learners, for example in a particular Life Orientation classroom. In addition to subject matter knowledge, teachers might also possess additional forms of knowledge useful to their work in the classroom which might be integrated and infused in their lesson preparation (Hill *et al.*, 2008: 375). As previously mention, there are concerns about the poor performance of learners in mastering content knowledge and at learners' weak competence levels when it comes to demonstrating skills, attitudes and values Zulu (2016:5). As a result, the ability and levels of competence that teachers demonstrate in applying pedagogy underpinned by an emphasis on learning outcomes, principles of integration, learner-centredness should be highlighted.

Of concern to this study is that teachers were not sufficiently trained to teach Life Orientation content and this has resulted in less successful Life Orientation curriculum

delivery (Samuels, 2012:10-11). This statement implies that teachers find it difficult to interpret and analyse content outlined in the different topics in the Curriculum and Assessment Policy Statement document. Pillay (2012:167) asserts that knowledge, skills, values and attitude are important attributes for the Life Orientation teacher to be successful in the school not only as a teacher of the subject, but also to possess the ability to engage in a number of diverse roles within the school community.

However, from the researcher's observation some of these challenges are on-site at the school level. Teachers lack the experience, knowledge, and skills to employ appropriate teaching strategies such as group investigation as a teaching approach to Life Orientation, and implementing management techniques to maximise the learning opportunities of the learners. It is the researcher's view that although Life Orientation teachers are able to apply some cooperative learning approaches, group investigation as a teaching approach was seldom applied in the Life Orientation classroom. In spite of heightened interest in the approach, not enough research is done on group investigation as a teaching approach to Life Orientation. Therefore, this study also intends to explore group Investigation as a teaching approach for Life Orientation in selected Northern Cape secondary schools.

3.10.3 Instructional Delivery

The knowledge of content and pedagogy means that the teacher is in control of the effectiveness with which a lesson is delivered (König, Blomeke, Paine, Schmidt & Hsieh, 2011:194). Four elements ensure effective instruction delivery. Quality of instruction is paramount as teachers should structure and organise the new subject content in a way that learners can make sense of it and also have a better understanding of it. The second element is appropriateness of the level of instruction and the mode of instruction should in many cases be directed by the diverse needs of learners. It is important that teachers apply curriculum differentiation and adapt their method of instruction to suit the need of the learners. Therefore, adaption of instruction delivery requires the teacher to cater for the different types of learners in the classroom. Incentives are the third element of instruction delivery where sufficient and continuous motivation encourages learners to become hard workers in executing their tasks. Motivation can also include reward systems to attract learners to deliver excellent work. Instruction should be delivered in specific time frames which ensure

good classroom management enabling learners to spend time on their work so that all lesson components could be adhered to. The integration of the four elements can then ensure successful and effective teaching and learning (König *et al.*, 2011).

3.11 TEACHING LIFE ORIENTATION

In the South African context, “the right of every child to access quality education is enshrined in South Africa’s Constitution” (DBE, 2010:8). Education White Paper 6, the Policy on Inclusion, launched in 2001, spells out how barriers to learning should be removed, and how inclusive education should be introduced into the entire education system. This means that Guidelines for Inclusive Teaching and Learning. Education White Paper 6 (DBE, 2010) offers teachers the opportunity to include all learners irrespective of culture, race, gender or disability in the classroom, using a variety of approaches and strategies. In the following section, the concept of teaching Life Orientation, its subject content as well as the teaching approaches applicable and related to this study, are linked to the cooperative learning approach.

Every country has its own curriculum which refers to the lessons and academic content taught in a school, and in some cases, provinces and states within the country have developed their own curriculum which should be used as an outline to guide the teaching and learning process. In the South African context, “The *National Curriculum Statement Grades R-12* gives expression to the knowledge, skills and values worth learning in South African schools. This curriculum aims to ensure that children acquire and apply knowledge and skills in ways that are meaningful to their own lives. In this regard, the curriculum promotes knowledge in local contexts, while being sensitive to global imperatives” (DBE, 2011a:4). In Section 2 of the Curriculum and Assessment Policy Statement (CAPS) a description of the subject, is given with its specific aims and time allocation. Thereafter, the Teaching Plan, comprising an Overview of Topics, specifying topics per grade, giving an overview and perspective of content that must be covered within the curriculum (DBE, 2011a:10-11). The Annual Teaching Plan (ATP) divided into four terms, outlines the curriculum offering a weekly plan of topic, content, time allocation and specified resources (DBE, 2011a:12-24). To assist with resources, the Department of Basic Education has established Provincial and National Book Screening Committees whose responsibility is to evaluate learning and teaching

material (LTSM) before it is approved and used by schools. This approved material is then advertised in a national catalogue from which schools all over the country can choose approved textbook for use in the schools. In the different subject matter areas, the ways of discussing the content structure of knowledge differ. Content knowledge requires going beyond knowledge of the facts or concepts of a domain. Therefore, teachers must not only be capable of explaining the correct content to the learners, but they must also be able to explain why the content is correct and what such content is worthy. In addition, the ATP offers suggestions for assessment.

Subject matter must be all inclusive to culture, race, gender and disability and must be free from discrimination. Every learner should embrace equal opportunity which will focus on skills, knowledge and attitudes in order to achieve the desired outcomes. The new subject matter should be relevant to all learners' needs, which they could apply in their daily lives. The Curriculum and Assessment Policy Statement (CAPS) for Life Orientation (DBE: 2011a:6) asserts that Life Orientation is a "unique subject in that it applies a holistic approach to the personal, social, intellectual, emotional, spiritual, motor and physical growth and development of learners". The South African Education system is expected to equip the youth with experience, skills, knowledge and values that will empower them to meet the requirements for living in a future society. The Annual Teaching Plan (ATP) of Life Orientation in the Further Education and Training (FET) Band outlines six topics which include development of the self in society, social and environmental responsibility, democracy and human rights, careers and career choices, study skills and physical education (DBE, 2011a, 10). These topics are equally important due to the nature of interconnection and the holistic development and well-being of the learner. Without shifting responsibility, it remains the duty of the subject teacher to structure and organise the subject matter in relation to content previously taught. In the South African curriculum, the Overview of Topics and ATP follow a progressive develop from grade to grade (DBE, 2011a) with recommendations for different teaching and learning approaches to ensure effectiveness and that the aim of Life Orientation is fulfilled as "it is a unique subject in that it applies a holistic approach to the personal, social, intellectual, emotional, spiritual, motor and physical growth and development of learners" (DBE, 2011:8).

In terms of subject matter and evaluating its effectiveness, a study conducted in the Eastern Cape by Adendorff and Adewumi (2014) argued that the incorporation of a more effective mechanism for measuring the impact of Life Orientation teaching on the learners should be found. Although Life Orientation may have achieved more in the way of awareness creation in terms of imparting knowledge, it was felt that it could bring about greater behavioural change; however, their study relied on learner responses and they felt that more research was needed to gauge how successfully the Life Orientation curriculum is implemented. Another South African study found that the delivery of the current Life Orientation curriculum within particular contexts was a challenging experience for the teachers. However, the researcher felt that with appropriate and professional teacher training and/or a more flexible and adaptable curriculum design, challenges could be overcome (Wasserman, 2014).

Taking such a finding into account, it is crucial for teachers to improve on their teaching and learning approaches within the Life Orientation classroom, bearing in mind the outcomes that are to be achieved. Therefore, various teaching and learning approaches should be applied in the teaching of Life Orientation content, and as recommended by the Curriculum and Assessment Policy Statement (CAPS), a participatory, learner-centred and activity-based approach to teaching and learning should be used. The learner-centred approach was initially introduced with the National Curriculum Statement Grades 10-12 (NCS) (DOE, 2003:2) with OBE as the foundation for curriculum change in South Africa post 1994. The CAPS document highlights the performance-based or participation-based teaching approaches with formal written tasks which resonate under active and critical approach to learning (DBE, 2011a:26-29).

To teach the subject effectively, the teacher must be an expert on the content to assist the learners in the construction of new knowledge. Subject content knowledge can be regarded as an essential component of teacher knowledge and teacher practice. When teachers have interpreted the curriculum and know the topic that they have to teach, it is vital that they know the material well enough to pass it on to others in an easily understandable way in order to for the learner to understand the material and to assist them in developing intellectual resources. This means that learners must be

able to understand the content and continuously develop their skills to become effective and productive in everyday, real-world situations.

As previously discussed, teacher knowledge is comprised of subject content knowledge, pedagogical content knowledge and general pedagogical knowledge (Shulman, 1986:9) and development of these three components support the teachers in becoming an expert in their particular subjects.

Experts in the subject, such as Life Orientation, have good analytical and observational skills which can empower learners to be effective citizens in society, as specified in the curriculum. Rollnick and Mavhunga (2016:10) classified a 'didactic system' as a three-way relationship between the teacher, student and knowledge taught and didactics is how the interrelatedness of the activities is described, connected and transformed. Stated differently, it promotes understanding about the knowledge that is been changed within the different stages of teaching which implies that knowledge is constantly being adapted and modified by teachers during their teaching praxis of which is referred to as 'fit for purpose'. The expert Life Orientation teacher ensures that learners are actively involved in cooperative learning and participate meaningfully in the tasks given to the groups, they are aware of the problems that learners experience while learning and are ready to address any new questions and queries from the learners. Delivery of content should be current and reflect the latest and most up-to-date data.

The Life Orientation classroom is a social space in which learners have the opportunity to share their lived-experiences and reflect on their performances (Radford, 2007:1791). The classroom, a safe place conducive to learning, is where learners will learn new information with the teacher who is the responsible for ensuring that the learner understands the new information, becoming involved in the construction of knowledge and actively participating in the social environment with others. Leontiev (1978) characterised it as 'knowing-in-common' or 'knowing-with-others. Therefore, teachers not only function as an authority or expert, but must fit in, interact and understand the various beliefs of the diverse learners who make up the community of the classroom.

Life Orientation, as a critical pedagogy, can be defined as an active pedagogy which enables learners to become truly participatory members of a community, who not only belong to a society but who can create and re-create knowledge and society in and outside the classroom (Toklucu & Tay, 2016:317). This means that learners participate actively in this community of learning which motivates personal achievement, respect others and their values. Life Orientation as a critical pedagogy aims to value learners' voices, beliefs, attitudes, knowledge and experiences, and seeks the development of learners' critical consciousness as well as their social skills through the implementation of cooperative learning with members being flexible towards forms of expression, change and transformation.

Real classroom interaction is an opportunity for participants, both the teacher and the learners, to express their own ideas on those of others in a dialogical co-construction of knowledge. This implies that during conversations between the teacher and the learners, there will be action and reflection where learners can play an active role that allows for thoughtful and active participation, an essential element of Life Orientation. Thus, learning as a social construct is viewed where knowledge is constructed through social interaction with peers or community. Vygotsky (1978) emphasises that interaction, peer mediation and scaffolding are important elements and therefore pave the way for the construction of knowledge and language development, promote a social construction of knowledge, mutual learning and at the same time, personal and social development.

3.12 CONCLUSION

The purpose of this chapter was to reflect upon literature related to how group investigation as a cooperative learning teaching and learning approach can be applied in the classroom. The literature review has unveiled valuable information on how group investigation as a cooperative approach can be applied across the curriculum. This chapter discussed the historical background of cooperative learning, the conceptualisation of group investigation as a cooperative learning approach as well as the nature of cooperative learning. Strategies to ensure positive outcomes in cooperative learning were offered to teachers for use in the teaching and learning process. Discussing both sides of the coin, benefits of cooperative learning as well as

challenges faced in the implementation of cooperative learning were also described and discussed. The final section discussed teachers' knowledge comprising general content knowledge, subject content knowledge and pedagogical content knowledge and how important it is for teachers to acquire and develop these areas of knowledge for the successful teaching of Life Orientation within the South African context.

The following chapter, Chapter 4, presents and described the research methodology followed in conducting this research on how group investigation as a teaching approach to Life Orientation is implemented in selected Northern Cape Secondary Schools.

CHAPTER 4

RESEARCH METHODOLOGY AND DESIGN

4.1 INTRODUCTION

This chapter explains the research methodology and design followed in this research to collect data. The methodology used in the study is guided by the research question: *To what extent do teachers make use of group investigation as a teaching approach to Life Orientation in selected secondary schools in the Northern Cape Province?*

The chapter begins with a description of a number of paradigms which are found to be underpinning research, before the combination of paradigms underpinning the current study is presented and described. Thereafter, research designs are depicted before moving into a description of the research design chosen for this study, a mixed methods design. The research site, population and sampling procedures are presented. Data collection incorporates a variety of data collection tools, both qualitative and quantitative. This chapter also describes the constant comparison method of grounded theory, employed as a tool to analyse qualitative data; using inductive methodologies. In conducting the data analysis, insights were developed by amalgamating the analysis from both the interviews, observations, and document analysis in order to build and develop an understanding on how this qualitative data responded to the research question.

Since this chapter discusses mixed methods research design, it is important to mention that the research is twofold. One part of the research focuses on the teachers that employ the group investigation activities in the Life Orientation classrooms. The other part of the research deals with the phenomenological research designs of qualitative research as learners are involved in the group work during group investigation.

4.2 RESEARCH PARADIGM

4.2.1 Defining a Research Paradigm

Denzin and Lincoln (2010:5) describe research paradigm as belief systems that attach the user to a particular world view and are complex, integrated systems which cannot be seen in isolation from their epistemology, ontology, and methodology. Teddlie and Tashakkori (2009:84) define a paradigm as “a worldview, together with the various philosophical assumptions associated with that point of view”. Similar to the viewpoint of Teddlie and Tashakkori (2010), Creswell and Plano Clark (2011) also refer to a paradigm as a worldview. Bogdan and Biklen (1998:22) hold that the term paradigm may be defined as “a loose collection of logically related assumptions, concepts or propositions that orient thinking and research and the philosophical intent or motivation for undertaking the study.” Willis (2007:8) explains that “a paradigm is thus a comprehensive belief system, worldview or framework that guides research and practice in a field”. Taylor and Medina (2013:1) builds upon the explanation of Willis to assert that from a philosophical perspective, a paradigm comprises a view of nature of reality – whether it is internal or external to the knower (ontology), a related view of the type of knowledge that can be generated and standards of justifying it (epistemology), and a disciplined approach to generating that knowledge (methodology).

Ontology refers to the concern of reality, being and nature of existence. Schandt (2007:10) asserts that ontology is the world and assumption that researchers use in their exploration of new knowledge. As the researcher, one could wonder whether social reality exists independently to human conceptions and interpretations if there is a shared reality or being could be multi-faced depending on the nature of context (Ormston, Spencer, Barnard & Snape, 2013:5-6). From an ontological point of view there are diversified realities and this diversification affects each individual's perceptions. The ontological understanding of the worldview states that knowledge is constructed by people on how they interpret their interaction with their environment and others. Therefore, it is not practical to detach factual knowledge from values, attitudes, beliefs, intentions and assumptions that govern people in a specific phenomenon (Arthur, 2012:17). In other words, no two people view the world in the

same way. The interpretivist-constructivist suggests that reality has multiple realities and is constructed socially through experiences, since each phenomenon is unique from each other.

The researcher opines that this inquiry aims in understanding the phenomenon in its natural context (Baxter & Jack, 2008:545). The researcher also opted to comprehend and interpret the experiences of Life Orientation teachers and assumed that each Life Orientation teacher interviewed perceived the world in a different way, therefore teachers will give their different opinions. Therefore, this study is based on the belief that Life Orientation teachers' perceptions of the quality of their praxis of group investigation as a teaching approach, can be understood through engagement and interaction with their learners. Moreover, corroborated findings by Mills, Bonner and Francis (2006:2) agree with the above assertion and argue that multiple truths also exist and that universal and pure objective truth about reality does not exist. This implies that people in different societal environments hold equal truths interpreted by their various interaction with the world.

Henning *et al.* (2004:2) argue that epistemology is a philosophy of how we come to know the world. Questions of what we regard as knowledge or evidence of things in the social world are epistemological questions and, overall, are designed to help you explore the kind of epistemological position your research expresses or implements. "Epistemology specifies the nature of the relationship between the researcher and what can be known" (Terre Blanche, Durrheim & Painter, 2006:6). It is important to distinguish questions about the nature of evidence and knowledge – epistemological questions on how to collect or generate data. Ormston *et al.* (2013:5-6) align themselves with the former and posit that epistemology is concerned with strategies that assist the researcher with ways of constructing knowledge about being and that which is regarded as knowledge.

The epistemological perspective of interpretivist-constructivism holds that the researcher and the participants cannot be totally detached and therefore the investigator is interactively connected to the proceedings of the inquiry. Therefore, the researcher would correctly interpret the phenomena from within, interacting with the participants. In an epistemological context, the theory of knowledge is concerned with

the principles and rules by which you decide whether and how social phenomena can be known, or how knowledge can be demonstrated. Different epistemologies have different things to say about these issues, and about what the status of knowledge can be. Most importantly, the researcher should be able to develop understanding of the social context through the eye of the researched (Krauss, 2005:765). Furthermore, people are born into the world with meaning embedded in their cultural context, the social-constructivist researcher pursues the understanding of the context as the natural setting of the research participants. Thus, knowledge would be socially constructed in that particular way (Wahyuni, 2012:71).

Ontological and epistemological perspectives are difficult to keep apart, as from an ontological perspective, realism is closely related to the epistemological stance of objectivism. Bryman (2004:11) emphasises the issue of “whether we can stand and should study the social world according to the same main beliefs and procedures as that of the natural sciences, which is widely known as positivism”. The inquirer and the inquired-into are intertwined in an interactive relationship of talking and listening, reading and writing in order to understand how teachers perceived group investigation as a cooperative learning teaching approach

4.2.2 Various Paradigms in Research

There are four major research paradigms – positivism, post-positivism, critical theory and constructivism – all of which has been applied effectively in research. A brief description of research paradigms is given in the following sections resulting in a combination of paradigms which underpin the study.

4.2.2.1 Positivism

Positivism is described as a scientific paradigm and is based on the rationalistic empiricist philosophy developed by Aristotle, Francis Bacon, John Locke, Auguste Comte and Emmanuel Kant (Mertens, 2010:10). Guba and Lincoln (1994:105) agree that positivism can be described as the “received view” that ruled over formal processes in research for more than four centuries. Positivists believe that the social world can be studied in the same manner as the natural world. In natural sciences, reality of knowledge is founded only on scientific measurements that could be

observed with the intention to discover and describe constant relationships between variables (Cohen, Manion and Morrison, 2007:11). Comte, as the founder of positivism, highlighted three stages of explanation of reality as the theological explanation, metaphysical or philosophical explanations and positivism, which is the pure scientific explanations. The author asserted that human sciences should 'follow suit' of the natural sciences by implementing scientific methods to validate theories of human behaviours (Mack, 2010:6; Willis, 2007:12).

The positivist position maintains that scientific knowledge consists of facts while its ontology considers the reality as independent of social construction. If the research study consists of a stable and unchanging reality, then the researcher can adopt an objectivist perspective: that is realist ontology – a belief in an objective, real world with no bias and detached epistemological stance based on a belief that people's perceptions and statements are either true or false, right or wrong, a belief based on the view of knowledge as hard, real and acquirable (Walsham, 1995). Krauss (2005:760) endorses the aim of positivism as seeking to comprehend reality by employing methods of data collection that are objective and unbiased. These methods have to be validated and proven to be reliable to draw scientific conclusions from their data analysis using established tools. This is done to confirm that the same findings would be achieved in another research that employed the same methods.

Post-positivism arose out of dissatisfaction with some aspects of the positivist stance. Willis (2007) describes post-positivism as "a milder form of positivism that follows the same principles but allows more interaction between the researcher and the research participants." Though the post-positivism still believes in generalisation, it repudiated the notion of pure deductive ways of developing and acquiring knowledge, as well as achieving absolute truth when it comes to human behaviours (Wahyuni, 2012:71) though it accepts the belief that knowledge can be socially constructed (O'Leary, 2004:6-7). The two paradigms are regarded as research in the modern world to permit subjective interpretation of a social setting for purpose of triangulation (Hammersley, 2012:21; Mertens 2010:12). The following table indicates an overview of the ontological and epistemological assumptions that dictate positivist researchers.

Table 4.1: Positivism (adapted from Mack, 2010:7)

Ontological Assumptions	Epistemological Assumptions
<ul style="list-style-type: none"> • Reality is external to the researcher and represented by objects and space. • Objects have meaning independently of any consciousness of them. • Reality can be captured by our senses and predicted. 	<ul style="list-style-type: none"> • The methodology of the natural sciences should be employed to study social reality. • Truth can be attained because knowledge rests on a set of firm, unquestionable, indisputable truths from which our beliefs may be deduced. • Knowledge is generated deductively from a theory or hypothesis. • Knowledge is objective.

The post-positivist belief that reality can be constructed in social settings provided a platform for the development of another paradigm that promoted and advocated the subjective interpretive approach to describe social contexts.

4.2.2.2 Interpretivism

The interpretive paradigm, also referred to as the phenomenological approach or the “anti-positivist” paradigm, was developed as a reaction to positivism. It is also sometimes regarded as constructivism because it emphasises the ability of the individual to construct meaning. This means that the underlying aim of this approach is to understand people and how they interact with the world (Babbie & Mouton, 2008:28). Their point of view is that reality consists of people’s subjective experiences of the external world; thus, people may adopt an inter-subjective epistemology and the ontological belief that reality is socially constructed. Interpretivism thus focuses on exploring the complexity of social phenomena with a view to gaining understanding. The purpose of research in interpretivism is understanding and interpreting everyday happenings (events, experiences and social structures – as well as the values people attach to these phenomena (Collis & Hussey, 2009:56-57; Ruben & Babbie, 2010:37). As previously mentioned, interpretivists believe that social reality is subjective because it is shaped by the perceptions of the participants, as well as the values and aims of the researcher.

The interpretivist position espouses a hermeneutical approach, which maintains that that meaning is hidden and must be brought to the surface through deep reflection. This reflection can be stimulated by the interactive researcher-participant dialogue. According to De Vos *et al.* (2011:8) constructivism can be traced back to Kant's (1881), Max Weber (1864-1920) and Wilhelm Dilthey (1833-1911). Kant's position was that human perception is derived not only from evidence of the senses but also from the mental apparatus that serves to organise the incoming sense impressions. On the other hand, Dilthey believes that there are two different types of science: natural science *Naturwissenschaft* and the human science *Geisteswissenschaft*. The former is based on *Erklärung*, or abstract explanation. The latter is rooted in an understanding scientifically, or *Verstehen*, of the lived experiences of people. Weber maintains that all humans attempt to make sense of their worlds and continuously interpret, create, give meaning and rationalise daily actions or social phenomena (Babbie & Mouton, 2008:28).

Interpretivists are of the opinion that fundamental laws cannot explain the complexity of social phenomena (Blumberg, Cooper & Schindler, 2011:17). The position of the interpretivists is that objective observation of the social world is impossible, because it only has meaning for humans while it is constructed by intentional behaviour and actions. In fact, reality can be seen where people experience their day-to-day living within their social environment. This describes that what can be of value today, may not be of the same value tomorrow or in another social environment. Knowledge and theory are developed through ideas from observed and interpreted social environments. Blumberg *et al.* (2011:17) asserts that "this can generate findings beyond the common scientific knowledge". Therefore, interpretivists attempt to understand subjective realities and to offer explanations and understanding, which are meaningful for participants in the research.

Furthermore, interpretive inquiry engages teachers as reflective practitioners in developing enhanced understanding of the life-worlds of their learners by constantly asking questions such as: Who are these learners who sit before me? (Palmer, 1998). To experience an in-depth understanding involves a broader focus on the social, political, historic and economic spheres shaping the pedagogies, curriculum policies and schooling system in which teachers are emerged. An interpretive orientation is

important for teachers wishing to adopt more student-centred pedagogies such as constructivist approaches to teaching and learning (Bullough & Pinnegar, 2001).

4.2.2.3 Critical realism perspective

Realism is a research philosophy sharing the principles of positivism and interpretivism (Blumberg *et al.*, 2011:19). Despite the prevalent position among the rest of the paradigms, positivism has been criticised for “naïve realism” in which reality is apprehendable and knowledge can easily be captured and generalised into a context-free form (Guba & Lincoln, 1994). More specifically, realism concurs that human beliefs and behaviour exist without reality. Additionally, to understand people and their actions, requires acknowledgement of the subjectivity inherent to humans. Saunders, Lewis and Thornhill (2009) state that our knowledge of reality is a result of social conditioning. These theorists argued that reality does exist despite the fact that human beings must first experience the social world or not; there is validity in recognising realities that are simply claimed to exist or act, whether proven or not. From an interpretivist perspective, realism recognises the difference between natural and social sciences and that social reality is pre-interpreted. Realists, in congruence with the idea of positivists, believe that that science must be based on empirical evidence and not only by language and discourse as proposed by qualitative researchers.

In discussing the social world, Livesey and McLaren (2011:1) alluding to the interrelated, philosophical assumptions that underpin the different paradigms, namely: ontology, epistemology and methodology, is of the view that researchers who uphold their world realistically are much keener to accept the basic principles of the natural and social sciences as being the same. A further contribution is that empirical evidence serves as proof for valid knowledge, but in itself it is not sufficient. The main objective of realism is thus to go beyond a description of relationships and to discover how such relationships came to being. Realists believe and are convinced that the social world has to be understood in its totality as link of parts of the social worlds are affected by other parts. Thus, Livesey and McLaren (2011:4) promotes the use of focus group or in-depth interviews in order to collect reliable and valid data for a study, in accordance with the realism paradigm.

4.2.2.4 Pragmatic approach

Pragmatism has a specific view of knowledge and claims that the only way knowledge can be acquired is through the combination of action and reflection. Pragmatists view knowledge as a relationship between action and consequences, and not about the world out there (Creswell, 2003:11). According to Dewey's transactional constructivism and transactional realism, there is no gap between human beings and their environments because of the participants in a universe. Dewey's transactional approach connects well with what is called the 'interventionalist design'. Methodologically, pragmatism is more on the side of the interventionist and not on the side of the non-interventionist and therefore cannot provide a philosophical foundation for an approach that would combine the two (Tashakkori & Teddlie, 2010:111). Epistemologically, Dewey would not agree that it is possible to gain knowledge other than through action. The author asserts that observation is not a neutral registration of reality, but in itself, is a transaction between action and the environment.

Furthermore, with regards of the purpose of research, pragmatism distinguishes between explanation and understanding. Understanding aims to identify intentions of and reasons for social action, while explanation identifies the causes and correlations between events. The latter orientation is clearly the one that is central to Dewey's transactional theory of knowing, which claims that "knowing is always about relationships between actions and consequences" (Creswell & Plano Clark, 2007:20). The idea is that human action is meaningful and that meaning-guided action plays an important role in Dewey's thinking. Pragmatism shows that no knowledge can claim to provide us with a deeper, more real or true account of the world. The variety of knowledge is the result of different ways in which we engage with the world. That means different approaches generate different outcomes, different connections between doing and undergoing, between action and consequences and pragmatically, judge our knowledge in relation to the processes and procedures through which knowledge has been generated (Tashakkori & Teddlie, 2010:113). Thus, Dewey's pragmatism helps to ask precise questions about the strength, status and validity of the knowledge claims developed by particular designs.

4.3.2.5 The interpretivist-constructivist paradigm and social constructivism

The interpretivist-constructivist paradigm has its origin in the philosophy of Edmund Husserl's phenomenology and Wilhelm Dilthey's study of interpretive understanding called hermeneutics (Mertens, 2005:12). The interpretivist paradigm holds that analysis of data should give full detail or information pertaining to the manner in which participants construct knowledge regarding the phenomenon they find themselves participating in. It, therefore, requires a rich description to be produced to provide the understanding and the uniqueness of the phenomenon (Masoabi, 2015:160).

Therefore, research is about the social world which provides the researcher's ontological, epistemological and methodological belief system. Importantly so, the paradigm guides and funnels a study. For this study to be successfully completed, a research paradigm that best suits the study must be employed, and therefore, the specific research philosophy which underpins this study is discussed next.

The positivist's focus is that knowledge can only be regarded as valid and objective if it is evident within observations of the external realities (Flowers, 2009:3) taken the position that the social world exists objectively and externally and that knowledge is valid only if it is based on observations of this external reality. In comparison to the positivist position, the anti-positivist and post-positivist believe that the content and the natural and social sciences lay the structural difference between these paradigms. At this point, it is clear that the moment meaning is constructed, interpreted and then re-constructed, people will come up with different understandings. Thus, people will then react within a framework of various interpretations in a social construct.

In conducting research, researchers have to choose a stance with the paradigm that best suits their beliefs concerning reality in their field of study (Mills *et al.*, 2006:2). The chosen paradigm forms the basis of guidance to the inquiry, methodology, and selection of methods for data collection. This means that in this study, social constructivism allows the researcher to give meaning and understanding of the culture and context as it occurs in a society with participants involved. Therefore, the researcher has chosen a multi-paradigm stance that includes the pragmatic research paradigm for this study (Piaget, 1927; Vygotsky, 1978). The use of a combination of these paradigms will assist the researcher in exploring the use of group investigation as a teaching approach for Life Orientation in selected secondary schools. The

positivist perspective is required for the quantitative data as they involve numbers that would need descriptive analysis (Creswell, 2012: 545) on the observation of teachers' praxis in employing group investigation in the Life Orientation classroom, while through the lens of the social constructivists, human participation informs reality (Fouché & Schurink, 2011:310). Learning as a social process, allow social interactions and communication to lead to the construction of new meanings and further development among learners. The classroom in this case can be regarded as the social context for learning. The social environment allows learners to learn from each other and develop knowledge in an integrated manner. On the other hand, participating teachers, employed group investigation as a cooperative teaching approach in the Life Orientation classroom and the social constructivism paradigm supports the use of qualitative research methods.

4.3 RESEARCH DESIGN

Research design can be seen as the road map on how you plan to conduct your journey [study] and from which angles [how, from whom, from where] you will undertake the trip [how data will be obtained]. McMillan and Schumacher (2010:20) describe research design as the procedure for conducting the study, which includes when, from whom, and under what conditions the data will be obtained and Durrheim (2006:34) explains that research design can be seen as a framework of action between the research questions and how the research is executed. This indicates that the planned procedure must dictates that positive methods must be employed in answering the research question. In order to follow the roadmap, the researcher employed the mixed methods research design as a combined feature of qualitative and quantitative methods in studying this phenomenon.

4.3.1 Qualitative Research Design

There is are a number of designs associated with qualitative research and include the Narrative design or Narrative Biography (Fouche & Schurink, 2014: 313), Case Study, Phenomenology, Ethnography and Grounded Theory designs.

4.3.1.1 Narrative design

Narrative research in the social sciences is a form of research in which linguistic data are central to the work. People by nature lead storied lives and tell stories of those lives. The narrative researcher collects these stories that describe such lives, then analyses and retells the stories in terms of a narrative of experience. The interpretation that occurs, which is embedded in the data collection process, does not make narrative into fiction. The telling of one's life story is an exercise in 'sense-making' and is integral to the identity creation process. One of the main things that stories do is to integrate disparate elements of human experience into a more-or-less coherent whole. Therefore, a narrative is not just a listing of events, but an attempt to link them both in time and meaning. Maree (2016:76) indicates that as the story teller interacts with his/her audience, knowledge is generated within a particular socio-cultural context. This viewpoint is congruent with Ary, Jacobs, Sorensen and Razavieh (2010: 468) who assert that "a narrative can be any text or discourse and that the stories are accounts of events and actions chronologically connected" and in addition, a narrative can be a first-person account or a collaboratively constructive narrative to communicate the meaning of an experiences.

4.3.1.2 Case study design

Case study research refers to an empirical inquiry about a contemporary phenomenon like a case, set within its real-world context, especially when the boundaries between the phenomenon and context are not clearly evident (Yin, 2009:18). A case study approach helps the researcher gain insight into the phenomenon as it permits an in-depth search for meanings and reasons (Merriam, 2009). The use of case studies is associated particularly with small scale research, focusing on the instance of a particular phenomenon with a view to providing an in-depth account of events, relationships, experiences or processes occurring in that particular instance (Babbie & Mouton, 2008). Thus, the case study approach is not a method for collecting data, but rather a research strategy wherein a variety of research methods such as interviews, observation and document analysis can be used.

"Case study designs can be classified into single case study and multiple (collective) case studies" (Stol & Fitzgerald, 2014:1-2). These designs could be employed in a holistic way, meaning in-depth study of a unit of analysis or in an embedded manner,

referring to use of various units of analysis. A unit of analysis is explained as individuals, class, organisation, documents, community or site where data is collected.

Yin (2003) categorises case studies as explanatory, exploratory and descriptive in relation to their application. Yin explains that “an explanatory type of case study can be used to answer a question that seeks to explain the presumed causal links in real life interventions that are too complex for a survey or experimental strategies; it can be used to explore phenomenon with no single clear customary or established outcomes.” On the other hand, a descriptive case study is employed to describe a phenomenon and its real-life occurrence. Furthermore, for the purpose of this study, exploratory research frequently utilises in-depth interviews as they lead to insight and comprehension of subject material. In this study, exploration of teachers’ praxis [experience] in employing group investigation in Life Orientation gained from interviews, observation and documents will provide better understanding and insight into the way group investigation is interpreted and employed.

Furthermore, Stake (1995) differentiates case study types into intrinsic, instrumental, or collective. Firstly, the researcher examines the case for its own sake; secondly, the researcher selects a small group of subjects in order to examine a certain pattern of behaviour and lastly, the researcher coordinates data from several different sources, such as schools or individuals. Unlike intrinsic case studies which set to solve the specific problems of an individual case, instrumental and collective case studies may allow for generalisation of findings to a bigger population.

4.3.1.3 Phenomenology research design

Phenomenological research is explorations into the structures of human-life worlds – the lived world as experienced in everyday situations and relations. Therefore, participants elaborate on their experiences, what these experiences mean to them and they are able to provide a detailed description of it. This implies that from the individual descriptions, general or universal meanings are derived (Maree, 2016:77). Phenomenological research is explained further by Ary *et al.* (2010:471) who define it as “a design to describe and interpret an experience by determining the meaning of the experience as perceived by the people who have participated in it.” Believing that experiences can be interpreted in different ways and the meaning of these

experiences to individuals is what constitutes reality. The main characteristic of qualitative approaches is that the subjective experience is at the centre of the inquiry.

Furthermore, the literature reveals various types of phenomenological research designs. Firstly, hermeneutical phenomenology research is the type of research that is oriented toward lived experiences and interpreting the 'text' of life (hermeneutics). Secondly, are empirical, transcendental and psychological phenomenology type. The researcher will not focus on the interpretations, but will place more emphasis on descriptions of the experiences of the participants. The researcher must first identify the expectations and then deliberately put aside these ideas, a process called bracketing, as this will enable the researcher to understand the experiences of the participants much better and with an open mind (Van Wyk & Taole, 2014:15).

4.3.1.4 Ethnography research design

Ethnographic design involves the collection and analysis of data about cultural groups, communities or social setting. It seeks to understand the relationship between culture and behaviour. The researcher reads into and describes the shared learning patterns of values, behaviours, beliefs and language of an entity or a unit. The researcher lives and experiences the cultural setting of a group or may study a sub-group within a culture, which includes values, customs and rituals of the people (Maree, 2016:80). This implies that the ethnographic research observes in detail the behaviour of participants, then evaluates the observation. When evaluating, the researcher uncovers the meaning found in information collected on particular individuals. The outcome is a cultural picture that includes the views of participants (emic perspective) as well as views of researcher (etic perspective). Thus, ethnographic research involves the location of certain people and the way they are living and executing their cultural beliefs (De Vos *et al.*, 2011:304).

Various types of ethnographic research designs are of relevance for the current research. Creswell (2007) describes two approaches to ethnography which the authors called realistic ethnography and critical ethnography. Firstly, in realist ethnography, the researcher "tries to provide an objective account of the situation, typically from a third-person point of view. Standard categories are used, and factual information and closely edited quotes are presented as data. The researcher's interpretation occurs at the end" (Creswell, 2007:69). Secondly, in critical ethnography,

the researcher “takes an advocacy perspective and has a value-laden orientation. The researcher is advocating for a marginalised group, challenging the status quo, or attempting to empower the group by giving it voice” (Creswell, 2007:70).

4.3.1.5 Grounded theory

Grounded theory research are studies in which data are collected and analysed and then a theory is developed grounded in the data. It uses both an inductive and a deductive approach to theory development (Maree, 2016:79). This design has its origin in the experiences of the participants and therefore the assumption that the theory is grounded in this data. Strauss and Corbin (2008) explain that “description is not theory but is basic to theorising and conceptual ordering”. The theory that is generated is self-correcting, which means that as data are gathered, adjustments are made to the theory to allow for interpretation of new data that are obtained. Theory will be used to explain a problem, connections and understanding which refer to meaning, implications and inferences. Therefore, the grounded theory design intends to move beyond description to explore new theory.

4.3.2 Quantitative Research Design

Quantitative research designs can be categorised into two groups. These are Experimental and Non-Experimental research designs (De Vos, Strydom, Fouché & Delport, 2011:144). There are also different types of quantitative research designs from which the researcher can select, which is dependent on three specific elements, the size of the population in the study under investigation, the essence and relevance of the study and the purpose and scope of the research of the phenomenon (Van Wyk & Taole, 2014:8).

4.3.2.1 The size or number of the population

The first study under this group is the Cross-sectional studies. These studies are known as status studies. They are best applicable for social and educational research. The aim of these studies is targeted for investigating situation, issues, and behaviours and by exploring a cross-sectional population. Secondly is the Pre-and post-test design studies. These studies are also called the “before-and after-study” to measure the effect of or change in a situation, issue of the problem. The size or number of the population will not be stagnant due to the duration of the study and the involvement of

the participants will be observed. Its purpose is to measure the overall impact of an intervention strategy. The last under these groups is the longitudinal study. This is research over a period of time. In this type of design, the study is visited on regular intervals over a long period of time.

4.3.2.2 Reference period of the study

Van Wyk and Taole (2014:8) alluded that “this is a time-frame in which a study is exploring a phenomenon, event, problem or situation.” The Retrospective design is a type of design that is exploring or studying a phenomenon, event, problem, challenge or situation with available data for the period. The prospective design focuses more on the phenomenon, event, problem, challenge or situation. This kind of studies attempt to determine the end result or product of the event or research study. The Retrospective-prospective design focuses on the past trends of studying it also in the future as a phenomenon, event, problem, challenge or situation.

4.3.2.3 Nature and scope of investigation

Experimental design is research design studies used to test the impact of relationships under study. This design starts from the cause to establish the effects study. Experimental designs consist of two main types of study participants – an experimental or treatment group and a comparison or control group. Van Wyk and Taole (2014: 8) describes a “treatment group or the experimental group as a group of participants to whom an intervention is delivered or manipulate an independent variable and whose outcome measures are compared with those of the control group. On the other side, a control group refers to a group of untreated study participants (people who do not receive the intervention) that are generally similar to the treatment group in all other aspects except for the fact that they do not receive the intervention or are not manipulated.” It is important that an identical predisposition should be established. Equal access – both treatment and control groups should have similar access to schools as an example. The authors continue with their description of control groups and express that control groups can be chosen either by randomized assignment, through matching on key characteristics such as sex, age, neighbourhood or even education, by randomly assigning observations as controls during the analysis phase of the evaluation (statistical controls) or by using multiple methods simultaneously (mixed methods). Control groups can be made up of the same mixes of persons or

other units (identical composition), can be exposed to the same set and intensity of extraneous factors (identical experiences) or can be made up of individuals with identical or equal predisposition towards the program (that is, the little attitude of the control group towards the program is the same as the attitude of the treatment group towards the program. Then the groups will be compared or tested for the differences between them on some outcome or dependent variable (De Vos *et al.*, 2011).

Types of experimental designs are pre-test-and-post-test design, control group design, comparative design and matched control experimental design. The pre-experimental designs are not characterised by random selection of participants and do not have a control group. They do not meet the scientific standards of experimental design. This design can be used when resources are limited and do not permit the development of true experimental design and forming tentative hypothesis that should be followed up with more controlled studies. Quasi-experimental designs are defined as experiments that do not have random assignment of research participants to two or more groups, but do involve manipulation of the independent variable. A quasi-experimental design is one in which the comparison group is predetermined to be comparable to the treatment group in critical ways, such as being visible for the same services or being in the same school cohort. The experimental group receives some treatment or intervention, while the control group either receives no treatment or an alternative form of treatment. Both are subsequently measured on the dependent variable (post-test) (Maree, 2016:167). A randomised experiment is a type of experimental design in which the participants are randomly assigned to a treatment or control group

4.3.3 Mixed Methods Research Design

Mixed methods research designs include the Sequential Explanatory Design; and the Concurrent Triangulation (or Convergent Parallel) Mixed Methods Design. Mixed methods research defined by Creswell and Plano Clark (2011) is a procedure for collecting, analysing and combining (or 'mixing') both quantitative and qualitative data at some stage of the research process within a single study or a series of studies to understand a research problem more completely. Creswell (2013:5) asserted that "the core assumption of this form of inquiry is that the combination of qualitative and quantitative approaches provides a more complete understanding of a research

problem than either approach alone”. There are three basic mixed methods designs, namely; the explanatory sequential, the exploratory sequential and the convergent parallel mixed method designs.

4.3.3.1 Explanatory sequential mixed methods design

The explanatory sequential mixed methods design allows the researcher to collect the data in two separate phases. Firstly, the researcher collects and analyses the quantitative data. When the quantitative data is analysed, the researcher uses these results to connect to the planning of a qualitative phase, which means using the quantitative results to plan a purposive sampling strategy for the qualitative phase. The researcher then collects and analyses the qualitative data. In addition, the word explanatory in the design name suggests that the qualitative findings help explain the quantitative results obtained from the first phase. The main reason for this design is “to use qualitative findings to help clarify and explain quantitative results. The rationale is that the quantitative results provide a general picture of the research problem while the qualitative results refine, explain or extend the general picture” (Maree, 2016:316).

4.3.3.2 The exploratory sequential mixed methods design

The researcher, using the exploratory sequential design, starts by collecting and analysing the qualitative data during the first phase of the study. After the analysis of the qualitative data, the researcher moves to a connecting step of building new quantitative measures, such as new variables, new constructs or new instruments. This step is followed by a quantitative phase where the new variables and instruments are tested and applied. Furthermore, the name in this design allows the researcher to get first-hand experience of a topic by identifying qualitative themes and developing theories. Thereafter, the experiences of the researcher are used to lead a subsequent quantitative examination of the initial qualitative results to test theory, the new measures or to measure the new variables (Creswell & Plano Clark, 2011). Moreover, the qualitative information and the quantitative data was treated as an equal Quan and Qual study (Creswell, 2012:544).

4.3.3.3 The concurrent triangulation mixed methods design

Creswell and Plano Clark (2011:5) attest that the combination of quantitative and qualitative data in mixed methods research gives the researcher more clarity on the

broader picture of the collection, analysing and integrating the two forms of data in the research problem. This is also an opportunity for the researcher to have a better understanding of the different viewpoints and perspectives as well as the possible multifaceted issues at hand.

The concurrent/convergent triangulation mixed methods design is used in the current study to explore the extent to which teachers use group investigation as a teaching approach for Life Orientation in selected secondary schools in the Northern Cape Province. The selected design allows the researcher to use two different methods in an attempt to cross-validate or corroborate findings within a single study and as a means to offset the weaknesses inherent within one method with the strength of the other method. Data collection comprises the use of source-based assignments, projects, teacher lesson observations (quantitative research method) and interviews, observations, and document analysis (qualitative research method) to collect data. The results of the two methods are integrated during the interpretation phase of this design. Noteworthy is that in the interpretation of data, the convergence of the findings is seen as a way strengthening the knowledge claims of the study or explain the lack of convergence that may result. The following diagram Figure 3.1 explains the mixed methods research design applied in this study.

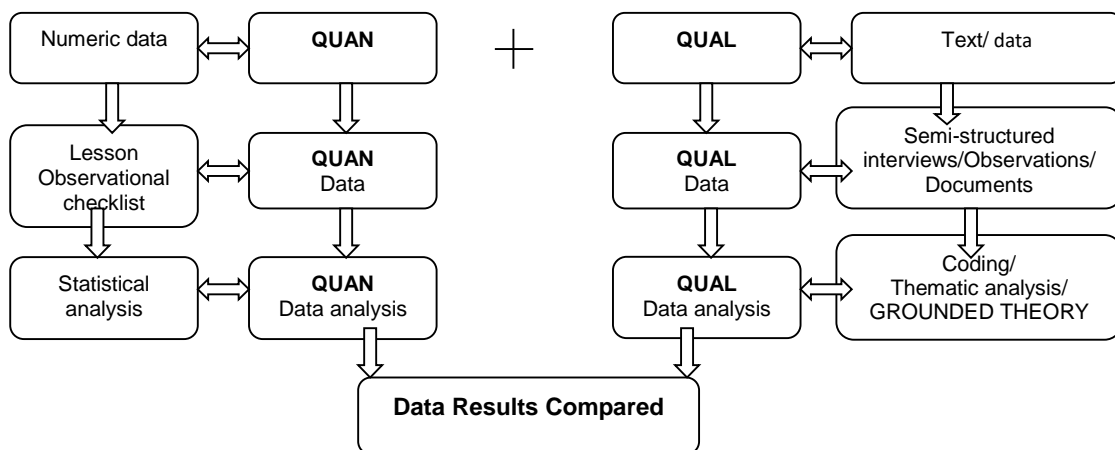


Figure 4.1: Concurrent Triangulation Mixed Methods Research Design (Adopted from Creswell, 2007)

This research adopted a concurrent triangulation mixed methods research design to be conducted concurrent but separate – that is, one does not depend on the results of

the other which is QUANT + QUAL (Ary *et al.*, 2010: 564). Quantitative and qualitative data are collected and analysed separately but at the same time, with the findings converging in the conclusion in order to respond to the overarching research question. Priority is given to the notions in the upper case and less priority to those in lower case but the method in use in this study is represented with the upper case to indicate that both the quantitative and qualitative data collection and analysis processes have been given equal priority. Once the two sets of initial results are in hand, the researcher reaches the point of interface and merges the results of the two data sets. This merging of the data may include directly comparing the separate results or transforming results to facilitate relating the two data types during additional analysis. Lastly, the researcher interprets to what extent and in what ways the two sets of results converge, diverge from each other, relate to each other or combine to create a better understanding in response to the study's overall purpose.

What can be deduced from the above outline of the research, teacher lesson observation by peer observers' results as quantitative measures to collect data from respondents, and offers the opportunity of establishing the idea of the effectiveness of the use of group investigation in teaching Life Orientation in the Northern Cape secondary schools. Furthermore, Life Orientation teachers' interviews to collect qualitative data offer in-depth insight. In summation, after obtaining different but complementary data on the same topic, the qualitative results will extend the overall view by means of specific interpretations through themes, subthemes and categories.

4.4 RESEARCH SITE, POPULATION, AND SAMPLING

4.4.1 Research Site

The research site is the selected place where the researcher collected data on the problem being investigated (McMillan & Schumacher, 2010: 326). The Northern Cape is divided into five districts, which are Frances Baard, John Taolo Gaetsewe, Namaqua, ZF Mgcawe and Pixley Ka Seme. The selected site for the selection of participants is the Pixley Ka Seme district in the Northern Cape Province which has 25 secondary schools.

Figure 3.2 illustrates the location of all the Department of Education Districts in Northern Cape Province.



(www.municipalities.co.za/demographic/137/pixley-ka-seme-district-municipality)

Figure 4.2: Education Districts in the Northern Cape

The Northern Cape is well known for its vast space and arid travelling distances from one school to the other. The Northern Cape Province is the largest province in South Africa, taking up nearly a third of the country's land area. It covers an area of 372 889km² and has a population of 1 193 780, the least populous of South Africa's provinces. It is bordered by Namibia and Botswana to the north, and also by the North West, Free State, Eastern Cape and Western Cape provinces. The cold Atlantic Ocean forms the province's western boundary.

Pixley Ka Seme District forms part of five district municipalities in the Northern Cape. It is the second largest covering a total surface of 102 727km². The total population in Pixley Ka Seme District is 182 006 which represents 16,49% of the population of the Northern Cape (Pixley Ka Seme District Municipality Overview, 2012-2018). De Aar, a small town in the Karoo, is situated more or less centrally in the Pixley Ka Seme District. It also hosts the Pixley Ka Seme District Office of the Northern Cape

Department of Education (NCDoE). The district was selected due to the geographical position and my role as subject advisor of Life Orientation in the Further Education and Training (FET) Band in this district. There are five former Ex-Model C Schools and 20 Public secondary or State Schools. Former Ex-Model C schools were established in the 1980s and early 1990s, receiving major subsidies from the government which included staff salaries. Due to their multi-cultures and diversity, teachers with scarce skills subjects were well remunerated as they strove for high-quality education. Parents' fees were charged in addition to the amount received by the State. Public secondary or State schools were entirely dependent on funding and supplies from the Department of Education. Currently, the decentralisation of certain functions by the Department of Basic Education (DBE), has given all provincial education departments (PEDs) the responsibility to ensure schools are properly functional with sufficient resources and finances. Classes are usually large, which are in some instances very large, and overcrowded classes is a prominent feature in the schooling system. Poverty, high illiteracy levels and unemployment have a negative impact on the quality of education and learner performance in the district.

The National Norms and Standards for School Funding of 1999 (NNSF) (DBE, 2018: 5) were developed to address to the inequalities in education. The primary focus was to address funding at poor schools and consequently, schools were categorised according to a quintile system using a targeted list of schools in the province. The National Quintile system has categorised schools from National Quintile 1 for the poorest, to National Quintile 5 for the least poor. Quintile 3 was categorised as medium and Quintiles 4 and 5 were categorised as least poor. The National Department of Education highlights the criteria according to which the quintile system each school is categorised and these include the poverty levels of the community in which the school is located, the literacy levels of the community and the geographical location of the school. In order for the Pixley Ka Seme District municipality to be effectively served, it is divided into local municipalities. The map, Figure 3.3, presented below, shows the local municipalities in Pixley Ka Seme District:



(www.municipalities.co.za/demographic/137/pixley-ka-seme-district-municipality)

Figure 4.3: The local municipalities in the Pixley Ka Seme district

4.4.2 Population and Sampling Procedure

A sample is a group of participants from whom data is collected (McMillan & Schumacher, 2010:129) with the most important section of sampling being the choice of participants within the sites (Flick, 2007:27). For the purpose of this study, a purposive sampling technique was employed to sample ten (n=10) secondary schools from five (n=5) circuits. From each circuit, two secondary schools were sampled, namely, one model C (Quintile 4 or 5) and one public school (quintile 1-3). In each school, two Life Orientation teachers were sampled, namely, one head of the department and one post level one. The sampling of this study comprised of ten teachers (n=10), each from a secondary school respectively (n=10) schools. All these teachers were teaching Life Orientation across the phase (Grades 10 to 12) at their schools respectively.

Eight of the teachers have a Life Orientation teaching experience of more than 11 years. Five experienced Life Orientation teachers are Life Orientation Head of Departments (HoD) at their schools, while three are specialist Life Orientation teachers. The other two teachers are novice with a teaching experience of just more than two years in Life Orientation. All teacher received training in CAPS and are part of the circuit moderation teams in the district. Forty learners from Grade 10 were

selected from each school which constitutes four hundred (n=400) learners which were divided into learner groups (LGs).

The purposive sampling technique was also used to sample 400 learners. All were Grade 10 learners and take Life Orientation as one of the fundamental subjects (DBE, 2011a: 8). Grade 10 learners are new to the FET phase, being exposed to new subject choices. The researcher's choice of participants focused on learners in the general field and learners in the commerce field. These two career fields are generally offered by all sampled schools in the district of study. The sample for this study was constituted using convenient and purposively sampling, as the researcher identified the people most desirable as participants of the population. These participants were selected because they can provide the best information that would add value to the study (Durrheim, 2006:49). Table 4.2 below illustrates the circuits, schools, teachers, and learners sampled for this study.

Table 4.2: Circuits, sampled secondary schools, teachers and learners in Pixley Ka Seme District

Circuits	Schools sampled per circuit	Teachers sampled	Number of sampled learners
Emthanjeni	2	2	80
Thembelihle	2	2	80
Umsobomvu	2	2	80
Ubuntu	2	2	80
Siyancuma	2	2	80
Total	10	10	400

4.5 DATA COLLECTION

The social constructivist-interpretivistic framework, within the equal prominence of quantitative and qualitative approach in the mixed methods research, informs the data collection processes (Creswell, 2009:8). The researcher used various methods of collecting data to address the aims and objectives of the study and to answer the main research questions. In this study face-to-face teacher interviews, learner group (LG) interviews, observation and document analysis were the main sources of data collection. Table 4.3 tabulates the research question underlying this study, the data collection method and data analysis technique for each research question.

Table 4.3: Summary of data collection methods and data analysis

RESEARCH QUESTIONS	DATA COLLECTION METHODS	DATA ANALYSIS TECHNIQUE
1. What does the scholarly literature on different teaching and learning approaches to Life Orientation in South African context entail?	The face-to-face interview schedule, The group interview schedule, Observation schedules Document analysis	Constant comparison analysis, Triangulation Thematic analysis
3. Which pedagogical Life Orientation content knowledge and skills should secondary teachers have in planning group investigation as a cooperative teaching and learning approach?	The face-to-face interview schedule, The group interview schedule, Observation schedules Document analysis	Constant comparison analysis, Triangulation Thematic analysis
4. What are the benefits and challenges of group investigation as a cooperative teaching and learning approach to Life Orientation?	The face-to-face interview schedule, The group interview schedule, Observation schedules Document analysis	Constant comparison analysis, Triangulation Thematic analysis
5. Which strategies could be used to improve teachers' proficiency regarding group investigation as a cooperative teaching and learning approach to Life Orientation?	The face-to-face interview schedule, The group interview schedule, Observation schedules Document analysis	Constant comparison analysis, Triangulation Thematic analysis

4.5.1 Face-to-face Interviews

An interview is regarded as “a two-way conversation in which the interviewer asks the participant questions and to learn to see the world through the eyes of the participant with regards to the ideas, beliefs, views, opinion, and behaviour” (Maree, 2016:92). In order to verify how the group investigation through a cooperative learning approach has relevance in answering the research questions, the researcher employed face-to-face individual interviews with all participating teachers. Interviews as a data collection method assisted the researcher to determine the level of pedagogical subject knowledge of the Life Orientation teachers in planning group investigation as a cooperative teaching and learning approach.

Semi-structured individual face-to-face interviews guided by an interview schedule (*cf.* Appendix L) were used in order to understand the central themes of the participants' experiences. A teacher interview schedule (*cf.* Appendix L) was used with the ten

Grade 10 Life Orientation teachers from each school. Each participant was informed about the interview questions before the one-on-one interview to allow time for reflection. The interviews were conducted during non-contact time in the HoD's office and after the teachers had employed group investigation as a teaching approach. The researcher kept the number of open questions to a minimum of three, but also used probing, prompting and clarification questions to gain a clear understanding of the participant's perceptions and understanding (Maree, 2016:93; Marshall & Rossman, 2006:55). Each interview lasted between 30 to 45 minutes in duration. The interviews were voice recorded after permission was granted by the interviewees and information was transcribed by the researcher to safeguard against the loss of important information. The questions the researcher have asked, served to elucidate the study's research questions.

4.5.2 Group Interviews

Maree (2010:95) differentiates between a focus-group interview and group interview, with a group interview incorporating a group of participants being asked a set of semi-structured or structured questions without debating the responses being generated. In contrast, a focus-group interview is a focused discussion on a topic, where debate and conflict are encouraged and group dynamics assist in data generation. Therefore, group interviews are arranged discussions with learner groups in order to obtain views about the research topic.

4.5.2.1 The interview procedure

Since the study employed a cooperative teaching approach and learners were already working in cooperative learning groups, the researcher conducted interviews with the different learner groups (LGs) in order to gather more in-depth insight and information about how learners experienced and interpreted the phenomenon. Seven group interview (n=7) in total, (also referred to as a learner group (LG)), were conducted with each group having eight members. In order to ensure that the responses were recorded, a digital voice recorder and back-up recorder were used to record the responses of the participants. After permission was granted by the interviewees (parental consent), information was transcribed by the researcher to safeguard against the loss of important information. The questions the researcher asked, served to elucidate the study's research questions. All the interviews took place in the offices of

the education specialist and deputy principal's offices. Each interview lasted between 30 to 45 minutes. The group interviews were arranged by the Grade 10 Life Orientation teacher from each school. The researcher used a semi-structured learner-group interview schedule [questions] (*cf.* Appendix M), which allowed the participants [learners] to fully discuss their experiences of group investigation and express their opinions and perceptions of the approach.

4.5.2.2 Advantages of conducting group interviews

Cohen *et al.* (2007:373) offer some advantages of conducting group interviews. Firstly, they explain that group interviews are appropriate for groups of people with a common purpose, secondly, a variety of viewpoints can be generated in contrast to individual interviews and lastly, it might be useful for gaining an in-depth insight into what might be pursued in subsequent individual interviews. On the other hand, the pitfalls of group interviews could be that one respondent may dominate the interview; individuals may be reticent in front of other respondents, a 'public line' may be offered instead of a more honest, personal response, participants may collude in withholding information and lastly, group interviews may produce 'group think', discouraging individuals who hold a different view from speaking out in front of the other group members (Cohen *et al.*, 2007).

4.5.2.3 Rules to minimise challenges

The researcher considered key rules and applied caution to minimise the above challenges and attempted not to impose his own agenda or bias. Secondly, the researcher was objective and refrained from opposing responses which were contrary to his own beliefs. Care has been taken not to mention specific terms or to over cue interviewees. As interviewers should direct responses to concrete, detailed accounts rather than generalisations (Ary *et al.*, 2010:441), caution was applied. The researcher was on the alert for any discrepancies between the interviewee's verbal and non-verbal behaviours and noted these. The probe-and-pause method was effectively applied and of important was that the unit of analysis was the view of the whole group and not the individual member. Interviewees were reminded that a collective group response was sought, even if there are individual differences or a range of responses within the group. This ensured that no individual was either unnecessarily marginalised

or subjected to blame or being ostracised for holding a different view (Cohen *et al.*, 2007:374).

4.5.3 Non-Participant Observation

4.5.3.1 The role of the researcher

McMillan and Schumacher (2010:350) state that it is much better to record the things you see and hear as it happens in the natural environment, terming it an observation. As the study focused on the use of group investigation as a teaching approach for Life Orientation in selected secondary schools, to collect valid and reliable information, the researcher used the stance of non-participatory observation with an 'etic' or 'outsider perspective' (Henning *et al.*, 2011: 83). De Vos (2011:329) suggest that "researchers should decide beforehand on the role they intend to play since it can be placed on a continuum from complete observer to complete participant with a degree of involvement in between". This type of observation, used in qualitative research, is called a 'complete observer', and involves observing without participating (Maree, 2016:91) and could be used in both quantitative and qualitative research Ary *et al.*, 2010).

4.5.3.2 Lesson observation

The Life Orientation classroom was used to observe teachers while teaching Life Orientation. Peer observers as non-participant observers, used The Learner Classroom Observation Schedule (*cf.* Appendix N) to observe how learners participated in the group activities. This social interaction and construction of knowledge during group work is an explicit characteristic of the socio-cultural constructivist framework. The observation schedule used a Likert scale (summated rating scale) to indicate evaluation on how teachers were employing group investigation as a teaching approach in the Life Orientation classroom. The Teacher Observation Checklist (*cf.* Appendix O), also using a Likert scale, focused on the planning of the lesson, lesson presentation, teaching methods, the involvement of learners, teachers' role, Life Orientation classroom environment, assessment activities, the use of teaching resources and learners' expanded opportunities.

4.5.4 Document Analysis

Document analysis is a non-interactive strategy for obtaining qualitative data with little or no reciprocity between the researcher and the participant (McMillan & Schumacher, 2010:359). As a valuable source of information in qualitative research, documents consist of public and private records that the researchers obtain about the site or the participants in a study (Creswell, 2012:223). The researcher used a Document Analysis Checklist (*cf.* Appendix P) for both primary and secondary sources of data. Primary sources included information provided by the Grade 10 Life Orientation teachers which is data from Departmental government policies such as FET Life Orientation CAPS document, National Protocol on Assessment (NPA), NPPPPR, School-Based Assessment Plan, Grade 10 Life Orientation teachers' Lesson Plans, Grade 10 Life Orientation assessment activities, School-based resource allocation and recording books, Grade 10 class timetable, learners' daily exercise books, HoDs' minutes book, Grade ten Life Orientation annual performance, and district subject facilitators developmental plan (DBE, 2011a:12-24). Secondary sources were material such as Grade 10 Life Orientation text-books or accredited journal articles that were based on previously published works which formed the basis of the literature review.

As previously mentioned, quantitative data evaluated the process followed by teachers in the teaching environment in the Life Orientation classroom (Maree, 2016:88; McMillan & Schumacher, 2010:139) through the use of the Teacher Classroom Observation Checklist (*cf.* Appendix O). In addition, the researcher used the Document Analysis Checklist (*cf.* Appendix P) for analysing Life Orientation teachers' personal documents such as teachers' master files, lesson plans and notes, assessment records, Departmental Life Orientation circulars, learners' portfolios, and learners' exercise books.

4.6 DATA MANAGEMENT

Data management also involves the effective storage and retrieval of data for easy access later on. This entails preparing and organising raw data into meaningful units of analysis. However, Miles and Huberman (1994) suggest that the analysis should not be partial but all data should have the same value and weight, but above all, it

should be data-driven rather than reflecting a pre-existing idea supported by highly selective examples.

Qualitative data analysis of social realities requires that one understand the 'symbolic world' of those that one studies that is the meanings and interpretations that people apply to their experience. Gibbs (2012:1) highlighted four procedures most researchers use to manage and prepare data for such an analysis. Gibbs suggests that one should compile all data (field notes, transcripts, images, audio, and video recordings), and then spend time in readings the transcripts, listening to the recordings, watching the videos to gain an impression of their content as a whole. This action should begin to generate ideas, hunches, categories and themes that interpret the phenomenon. The next step involves explicitly searching for categories and patterns in the data and marking the data with category or code labels. Gibbs suggest that it is in this process of coding that the researcher marks passages of text or part of images as being examples of things represented by the code name. The final step is to construct thematic outlines using the codes to lay out the sequence in which topics are considered.

The researcher maintained a disciplined transcription schedule. All scheduled interviews on the videotapes were text transcribed and read several times. Observations were summarised into conceptual categories and image data transformed into videos, photos or charts. The researcher continued data selection until the point of data saturation (Glaser & Strauss, 1967), which occurs when no new information is forthcoming. It is clear that the onset of data saturation allows for a clearer and better understanding of which directions the researcher can pursue throughout analysis (Bogdan & Biklen, 2006:197).

4.7 DATA ANALYSIS

Data analysis is the process of making meaning of the mass of collected data, to structure it in a specific order and to consolidate, reduce and interpret what the participants have said and what the researcher has observed (De Vos, 2002:339). McMillan and Schumacher (2010:367) state that "qualitative data analysis is an inductive process of organising the data into categories and identifying patterns and relationships among the categories". Data analysis for this mixed methods research study utilised the constant comparison analysis method developed by Glaser and

Strauss (1967) with data being analysed through coding and categorisation in order to find commonalities, patterns, and differences across the data collected.

4.7.1 Data Reduction

In mixed methods research, data reduction is a continuous process for the duration of the study. Data reduction is a process that involves selection, simplification, abstraction, and transformation of the raw data (Gibbs, 2012:1). During the process of analysis, it can be used to combine small bits of information into categories. Researchers need to delineate the boundaries of a given analysis with a broad analysis plan. This plan can include guidelines for data reduction, including whether all data will first be coded in an exploratory analysis, be partitioned in a way appropriate for theoretical analysis and hypothesis testing, or some data will simply not be included in specific analysis. The researcher is of the view that eliminating data not relevant to the analysis at hand or extracting the data that are relevant, is arguably one of the simplest forms of data reduction. Miles and Huberman (1994:11) assert that “data reduction is a form of analysis that sharpens, sorts, focuses, discards, and organises data in such a way that ‘final’ conclusions can be drawn and verified”.

In this study, where the larger data set was compiled from more than one type of data collection instrument, comprising semi-structured face-to-face interviews, group discussions, observations and document analysis, the researcher had to decide about the type of data to be selected from the larger data set. The researcher chose to analyse data from several different data collection instruments. Patton (1990) describes that triangulation across different data collection strategies during data analysis to be particularly helpful when dealing with large data sets.

4.7.2 Coding

The researcher employed the constant comparison method of grounded theory, as a tool to analyse qualitative data using inductive methodologies. Strauss and Corbin (1998:102) assert that the constant comparison analysis is characterised by three major steps. The process of analysing data is coding, which gathers a complete picture of the information obtained during the data collection process (Strauss & Corbin, 1998). Coding involves three levels of analysis which are open coding, axial coding,

and selective coding (Glaser & Strauss, 1967). During the first stage of the coding process or open coding, the data collected is broken down into small meaning units and a code is attached to the unit. Secondly, during the axial coding stage, data are put together in codes where categories and sub-categories are connected. Thirdly, also the final stage in what is referred to as selective coding, the researcher selects the main category and develops one or more themes out of the categories. The following model is an illustration of the coding process:

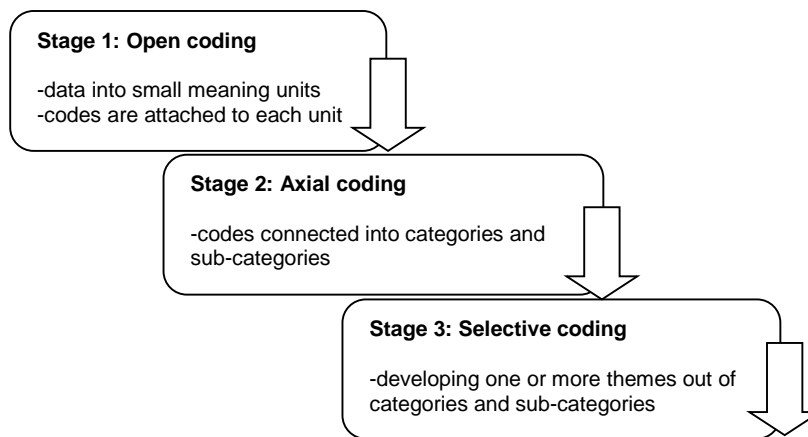


Table 4.4: Constant comparison analysis (Adapted from Glaser & Strauss, 1967)

The key issue that has to be considered is that inductive methodologies include categories and sub-categories that emerge from the data [semi-structured interviews] that was analysed. Furthermore, the researcher transcribed the data, coded and analysed manually, and then presented it narratively in accordance with the themes generated with the objectives that the study sought to achieve (Henning *et al.*, 2004:105). The quantitative data, which emanated from the document analysis from the group projects and examination scores, were analysed using the descriptive statistics (McMillan & Schumacher, 2010:139). Afterward, the descriptive data analysis, which included percentages, frequency table, and graphs and charts, was presented.

Information obtained from the document collection, non-participatory observation schedules, semi-structured face-to-face individual interviews from participants were very sensitive regarding the participants' identity disclosure. The researcher took extra caution finding proper storage for the information obtained. This information is accessible to the researcher for analysis purposes and to the supervisor for assessment purposes. Restricted access is ensured, as learners and teachers can be

identified. As a security measure, the researcher will keep the information in his personal safe located in his study office with a special pin code for a period of five years.

4.8 RESEARCH RELIABILITY AND VALIDITY

Reliability and validity are the key measures in quantitative research, with trustworthiness being one of the most important factors in qualitative research (Maree, 2016:123). Putting trustworthiness to the test, data analysis, findings and conclusions form the main ingredients of success.

4.8.1 Research Reliability and Validity in Qualitative Research

The validity is the level of understanding between the manner on how people express themselves and the realities of the world (McMillan & Schumacher, 2010:104). In order to ensure that the findings are correct, accurate and valid, the researcher employed certain procedures, including trustworthiness, credibility, and defensibility (Creswell, 2009:190). Qualitative validity poses a potential threat which is termed as researcher bias and evident when observation and recording of information are done with preconceived ideas. Another threat to qualitative validity is when personal views and perspectives are considered during interpretation of data and how the research is conducted (Johnson & Christensen, 2004:249).

By including the information or procedures of triangulation in an incorporating manner with member checking and participant involvement, it can address the accuracy of data during internal involvement (Creswell, 2001:196). The researcher engaged in prolonged and persistent fieldwork (ethnography) and used the natural setting where people [participants] live to conduct in-depth interviews. The researcher also applied multi-method strategies to promote the validity and reliability of the investigation. Multiple strategies permit triangulation of data across inquiry techniques. De Vos (2002:342) highlights the following types of triangulation that promote the validity and reliability of an investigation.

First of all, data triangulation is the type of triangulation that entails the use of a variety of data sources which add depth to the findings and complement one another. In this study, the researcher used observational data. Secondly, methodological triangulation

refers to the type of triangulation that involves the use of more than one method for gathering data. The researcher used interviews, observations and document analysis to compare results and applied the mixed-method approach. The use of triangulation with interviews, classroom observation field notes, and documents in the Life Orientation classroom helped establish the trustworthiness of the study.

4.8.2 Research Reliability and Validity in Quantitative Research

The validity of an instrument refers to the extent to which it measures what it is supposed to measure. Types of validity are face validity, content validity and construct validity (Maree & Pietersen, 2010:216). The researcher ensured that the interview and observation schedules covered all aspects of the different variables of this study to meet the requirements of different types of validity. An instrument is only reliable when it is used by a similar group of participants in a similar context and yielded the same results. It is also reliable when the instrument is repeatable and consistent (Maree & Pietersen, 2010:216).

Data of learners from the different schools, examination results of the last three years pertaining Life Orientation in the district and province were accessed from the Education Management Information System (EMIS) at the Pixley Ka Seme District Office of Education in De Aar.

4.8.3 Credibility

The credibility standard requires a qualitative study to be believable to critical readers and to be approved by the persons who provided the information gathered during the study. Merriam (2009:213-215) further points out that credibility is, therefore, “the correspondence between the way in which the researcher interprets and presents the research findings and the meanings and perspectives of the research participants”.

The researcher ensured credibility for this study by having frequent meetings with the supervisor who has a PhD qualification in curriculum studies, during the course of the research and write-up of findings. Furthermore, the supervisor, with a broad reservoir of experience served as a ‘peer debriefer’ to curb the possibility of bias, and

preferences that could hamper the credibility of the research findings with these being identified and eliminated. Moreover, the researcher will continuously be involved with the participants in the field in order to ensure the credibility of this investigation (Lincoln & Guba, 2000:290).

The researcher was on-site as a non-participant observer for two months to ensure the consistency of data collection. Despite receiving a consent to use the digital voice recorder in the classroom, it is the researchers' belief that as a Subject Advisor and working closely with the teachers in the district, and more specifically at these schools, assisted the participants in becoming comfortable in the presence of the digital voice recorder on-site. Interviews were conducted after lesson observation to give the teacher participants time to reflect on their praxis. The researcher cautioned all interviewees against deliberate misreporting or over representation on sensitive topics in order to minimise social desirability. Credibility was further increased by means of the face-to-face interviews and discussions by implementing member checking. Member checking is a process that allows the participants to play an active role in the process by bringing their own interpretations. The participants were requested to review the data and make changes and suggestions where they felt necessary. On completion of the interview data analysis process, the data in the form of digital voice recordings, transcripts and interview schedules, were made available to a senior researcher in the department who specialises in qualitative research designs, in particular content analysis, with a request to validate the trustworthiness, credibility, validity and authenticity of content in relation to the themes and subthemes (categories) that emerged from the analysed data. The senior researcher was given two to three weeks for data validation. The researcher received a satisfactory report that indicated that the correct protocol had been followed and thereby validated the process of data collection for this study as trustworthy. All the data displayed in this study are inductive and deductive by nature.

4.8.4 Confirmability or Objectivity

Confirmability is the degree to which the research findings can be confirmed or corroborated by others. Amponsah (2014:158) noted that confirmability in a qualitative research refers to objectivity on the part of the researcher. To obtain confirmability, the

researcher stressed the need to ask whether the findings of the study could be confirmed by a similar one and ensure that the process is free of any predisposition from the researcher's part and remain objective in relation to personal preferences and biases. During and after the interview and observation sessions with the participants, the researcher verified confirmability by tracking the qualitative data back to the original expressed by the participants' responses in order to understand the information, concerns, and realities correctly.

Auditing has been used to establish confirmability on how the research was done. In order to make auditing possible by other researchers, the researcher had to archive all collected data in a well organised, retrievable form so that it can be made available to those who wish to verify the trustworthiness of the findings of this study. Once more, to verify the honesty of the data, transcripts of data analysis have been submitted to an independent reader in order to guard against researcher bias. As the Subject Advisor providing guidance and support to the Life Orientation teachers in the De Aar region, the researcher used face-to-face interviews and observation schedules to gain enough data from the participants so as not to project the viewpoint of the researcher.

4.8.5 Dependability

Lincoln and Guba (1985) suggested a measure for dependability using an "inquiry audit" that evaluates the research analysis process and the research results correlation in qualitative studies. Auditing for dependability requires that the data and descriptions of the research should be elaborate and rich. The research processes need to be outlined thoroughly to enable another researcher to follow and apply in a similar case study even if results may vary. The more consistent the researcher has been in the research process, the more dependable are the results. Masoabi (2015: 174) asserted that intra-judge reliability is established by reviewing the consistency of data collected over time and randomly taking samples for evaluation. These types of reliability were obtained by comparison of various responses and comments that peer observers recorded on the lesson observation checklists. Moreover, the above-mentioned data was not collected at once, but over a period of eight weeks. The researcher voice-recorded the face-to-face teacher interviews and group discussions with learners and every afternoon discussed it with the participants to complete an audit trail. In order to establish dependability, the researcher applied multiple data

collection processes in this study, namely, face-to-face interviews, observations and documents.

4.8.6 Transferability

Leedy and Omrod (2005: 97) define validity in terms of accuracy, meaningfulness and credibility of the research as a whole. It also refers to the applicability of findings in one context where the research is conducted to other contexts or settings where the interpretations might be transferred. Whether findings can be transferred or not is an empirical question, which cannot be answered by the researcher alone. The target context must be compared to the research context to identify similarities. Creswell (2009) asserted that “to ensure external validity, rich and detailed description should be provided so that anyone interested will have a solid framework for comparison.” To obtain transferability, the researcher ensured that data was supported by sufficient evidence, and compared it to quotations from the participants. Later, transferability was established by providing descriptions of the research delimitation, participants, data collection methods and research results. Moreover, to enable the transferability of findings of this study for any other setting, the number of classrooms which form part in this study was mentioned, the actual number of participants was specified, data collection methods were clarified in detail in chronological order, the school term phase and length of time over which the data collection session was provided in Chapter 1. Throughout the process of this study, the researcher was sensitive to possible biases by being conscious of the possibilities for multiple interpretations of reality.

4.9 ETHICAL CONSIDERATIONS

The researcher submitted the ethical clearance form (*cf.* Appendix A1) to the Ethics Office of the College of Education at the University of South Africa (UNISA) for approval to conduct the research. A letter (*cf.* Appendix A) is proof of registration. A letter (*cf.* Appendix B) of application to conduct the research in the Northern Cape Province was forwarded to the Superintendent General of the Northern Cape Department of Education and the District Director of Pixley Ka Seme District for approval. A letter (*cf.* Appendix C) of Approval was received from NCDoe. A letter (*cf.*

Appendix D) to obtain permission to conduct research was also sent to the principals of each selected school in the district. A letter (*cf.* Appendix E) of approval to conduct research was received from the secondary schools. The researcher informed the participants (*cf.* Appendix F) about the participation in the research and letter (*cf.* Appendix G) their right of self-determination with no penalty. It was important for the researcher to obtain assent (*cf.* Appendix H) by asking the subjects [learners] or parents (*cf.* Appendix J) of minor subjects to sign a form (*cf.* Appendix I) that indicated an understanding of the research and consent to participate. The interest of the participants was protected with strict confidentiality and to protect their identity and that of the school. Confidentiality (*cf.* Appendix K) and anonymity of the participants were assured by means of using the pseudonyms. All ethical requirements have been applied when reporting the results in a comprehensive and honest way.

4.10 CONCLUSION

In this chapter, the researcher discussed the mixed-method approach to data collection and described how the social constructivist-interpretivist paradigm relates to this study. The researcher explained the data collection methods, both qualitative and quantitative, selection of the research site and participants. Purposive and convenience sampling were employed in this study. The data collection methods in this study included interviews, observation, documents, and digital voice recordings. The qualitative data collection techniques and the data analysis methods to analyse the raw data were explained. The researcher outlined the constant comparison analysis method of qualitative data analysis which is derived from the grounded theory approach. Credibility, validity, reliability, confirmability, transferability and dependability were all applied to ensure trustworthiness of this study. The ethical principles observed throughout this study have also been highlighted.

The next chapter, Chapter 5, presents the findings emerging from the data analysis. This presentation is accompanied by interpretation, analysis, and discussion of research findings.

CHAPTER 5

DATA PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

5.1 INTRODUCTION

In the previous chapter, the research design and methodology of this study was outlined. This chapter presents the analysis and interpretation of the empirical study. For the purpose of presenting the findings of this research study, the background of the participants, results of the data collected and the themes that emerges from the interviews, observations and document analysis are presented.

The first research technique used to collect data was semi-structured interviewing. During face-to-face semi-structured interviews, data were collected from the seven Grade 10 Life Orientation teachers using a voice recorder. During learners' group investigation discussion interviews, data was collected from seven groups, with each composed of eight learners to bring to the total of n=56. A digital voice recorder was used to do voice recordings. Data was also collected through the use of non-participatory observation with the observation of seven Grade10 Life Orientation lessons. An observation checklist was used to collect data, focusing on lesson presentation, teaching methods, the involvement of learners, teachers' role, the Life Orientation classroom environment, assessment activities, the use of teaching resources and learners expanded opportunities. Lastly, documents analysis, guided by a document analysis checklist analysed teachers' Life Orientation files, Life Orientation lesson plans, assessment plans, and assessment records, departmental meetings minutes, circulars, learners' portfolios', and learners' exercise books. The collected data from semi-structured interviews, non-participatory observation, and documents analysis were transcribed, analysed, coded and clustered together according to the emerging themes.

To achieve the overall aim of this study, information was gathered through an empirical study based on the research question and sub-questions:

To what extent do teachers make use of group investigation as a teaching approach to Life Orientation in selected secondary schools in the Northern Cape Province?

1. What does the scholarly literature on different teaching and learning approaches to Life Orientation in South African context entail?
2. How do theories foregrounding group investigation enhance a cooperative teaching and learning approach to Life Orientation?
3. Which pedagogical Life Orientation content knowledge and skills should secondary teachers have in planning group investigation as a cooperative teaching and learning approach?
4. What are the benefits and challenges of group investigation as a cooperative teaching and learning approach to Life Orientation?
5. Which strategies could be used to improve teacher proficiency regarding group investigation as a cooperative teaching and learning approach to Life Orientation?

5.2 DEMOGRAPHIC INFORMATION OF THE PARTICIPANTS

In this section, the researcher deals with the significant characteristics of the participants, focusing on their schools, gender, qualifications, age group and years of teaching experience at school. Table 5.1 presents the demographic characteristics of the teacher participants.

Table 5.1: Summary of the characteristics of the teacher participants

School	Life Orientation Teachers (Pseudonyms)	Participants Code	Gender	Age Category	Qualifications	Teaching Experience	Grade
School A	Verifah	T1	Female	50-55	BEd.	26	10-11
School B	Richiboy	T2	Male	35-40	BSc	7	10-12
School C	Umathi	T3	Female	45-50	BEd. (Hons)	24	10-12
School D	Chescar	T4	Female	20-30	BEd.	3	10-11
School E	Phakama	T5	Male	45-50	BEd. (Hons)	27	10-11
School F	Ms Petra	T6	Female	30-35	BEd.	8	10-12
School G	Monwabi	T7	Male	45-50	BEd.	22	10-12

Teacher Verifah is a middle age, female teacher with more than twenty-six years' teaching experience. She is a qualified Geography teacher, but has been teaching Life

Orientation for more than ten years. She holds a BEd. degree in Geography and an Advanced Certificate in Education (ACE) with specialisation in Life Orientation. She is a senior teacher at her school and is an additional member on the senior management team. Because of her teaching experience, she prefers to use the chalk board but has tended to become acquainted with the latest technology like the data projector and the whiteboard.

Teacher Richiboy is a male and the youngest of the participants. He is involved in the cultural activities like the debating and public speaking. He has taught Physical Sciences at the school for nearly four years, but has been teaching Life Orientation for the last three years of his teaching career. Teacher Richiboy holds a BSc. degree from the University of the Free State. He also has an Advanced Certificate in Education (ACE) with specialisation in Natural Science. He does not have a qualification in Life Orientation. Teacher Richiboy is also involved in the reading and writing programme at his school where he assists the Grades 8 and 9 learners who struggle with reading and writing.

Teacher Umathi is a middle-aged, female teacher who holds a BEd. (Hons) degree with specialisation in teaching and learning, but no qualification in Life Orientation. She forms part of the senior management team and is involved in counselling of learners with traumatic experiences. Teacher Umathi is involved in the religious activities of her school. She has been teaching Life Orientation since the subject was phased in during 2006 to 2008. She teaches Grades 10 to 12 and is the grade head in Grade 12. She is part of the cluster moderation team in the district as well as the provincial moderation team. Teacher Umathi is a lead teacher and is assisting with training and working sessions in the district.

Teacher Chescar is a female teacher and is in her third year of teaching. Her specialisation subjects are Life Orientation and Physical Education and she is at present upgrading her qualification through studies at the Cape Peninsula University of Technology. She is involved in debate and public speaking and is also involved in the extra-mural activities at her school. As a young inexperienced teacher, she is under the supervision of her mentor and is very satisfied with the guidance and support she receives.

Teacher Phakama is a senior teacher at his school and is also one of the departmental heads in the Afrikaans department. He teaches Afrikaans and Life Orientation in the Further Education and Training phase and is also responsible for Life Sciences in Grades 8 and 9. Teacher Phakama is the grade head for Grade ten classes and also serves as the mentor for teachers teaching grade 10 subjects. The teacher holds a BEd. degree with specialisation in Psychology and Afrikaans. He has no qualification in Life Orientation. As the departmental head, he is responsible for curriculum management at school as well as the Afrikaans department.

Teacher Ms Petra is a middle-aged teacher who teaches Afrikaans and Life Orientation from Grades 10 to 12 as well as Afrikaans Grade 9. She holds a BEd. degree in Afrikaans and has also specialised in Life Orientation. She is fond of public speaking and is promoting debating at her school. She serves on the debate and public speaking committee of the district. Teacher Ms Petra takes care of the management of assessment.

Teacher Monwabi teaches Life Orientation Grades 10 to 12 as well as Life Sciences to Grade 10. He runs extra-mural activities like the soccer and indigenous games at the school. Teacher Monwabi is a senior teacher and is a member of the school management team (SMT). He holds a BEd. degree and an Advanced Certificate in Education (ACE) with specialisation in Natural Science. He does not have any qualification in Life Orientation. He is a person that is not open to change and specifically changes outlined in the CAPS.

Three of the participants have formal qualifications in Life Orientation while the others have only gained knowledge through training and workshops. Participants were teachers considered have in-depth knowledge of teaching Life Orientation, and were willing to share their experiences in exploring the extent to which teachers make use of group investigation as a teaching approach for Life Orientation in selected secondary schools in the Northern Cape Province in South Africa.

As stated earlier, participants were also learners. The table below show the demographics of the learner participants.

Table 5.2: Summary of the characteristics of the learner participants

Schools	LO learner groups (Codes)	Gender	Age	Grade	Duration at school (Years)
School A	LG1	Males and females	15-16	10	3-4
School B	LG2	Males and females	15-16	10	3-4
School C	LG3	Males and females	15-16	10	3-4
School D	LG4	Males and females	15-16	10	3-4
School E	LG5	Males and females	15-16	10	3-4
School F	LG6	Males and females	15-16	10	3-4
School G	LG7	Males and females	15-16	10	3-4

Learners of the seven Grade 10 classes were purposively sampled on the basis of the end-of-year results from the previous year [2018]. These results were needed when new learner groups were formulated. The average age of the learner groups was more or less 15 years of age. All participating schools have two and more Grade 10 classes. Two Grade 10 classes per school were supposed to participate in this study but due to unforeseen circumstances, only one class per school took part in this study. A learner group (LG), consisting of eight learners, was selected from the seven schools. The total number of learners who participated in this study was 56 (n=56).

5.3 PRESENTATION OF FINDINGS

Qualitative data was gathered through face-to-face interviews conducted with Life Orientation teachers as well as group interviews with Grade 10 Life Orientation learners. The research findings are presented under themes and sub-themes that were captured from the data sets. The themes and sub-themes are summarised in the table below using the research questions as a guiding framework:

Table 5.3: Emerging themes and sub-themes

QUESTION 1	
1. What does the scholarly literature on different teaching and learning approaches to Life Orientation in South African context entail?	
THEME 1:	THEME 2:
Teaching and Learning approaches applied in LO.	Implementation of CAPS
Sub-theme 1:	Sub-theme 2:
Teachers' teaching approaches; different teaching approaches, communicative approach	Departmental working sessions; on-site training, adaptability of content
QUESTION 2	
2. Which pedagogical Life Orientation content knowledge and skills should secondary teachers have in planning group investigation as a cooperative teaching and learning approach?	
THEME 3	THEME 4
Training in the implementation of group investigation as a cooperative learning approach	Life Orientation content and pedagogical content knowledge and experience in GI
Sub-theme 3	Sub-theme 4
Teachers' perceptions with regards to strengths and advantages, preparedness and planning, training and group work	Appropriate subject knowledge, teachers' preferred method, influence on learners' achievement; expertise in the subject, presented with confidence, teaching experience
QUESTIONS 3 & 4	
3. What are the benefits and challenges of group investigation as a cooperative teaching and learning approach to Life Orientation?	
4. Which strategies could be used to improve teacher's proficiency regarding group investigation as a cooperative teaching and learning approach to Life Orientation?	
THEME 5:	THEME 6:
Benefits of group investigation as a cooperative teaching approach.	Challenges in implementing group investigation
Sub-theme 5:	Sub-theme 6:
Teacher-learner-interaction, team work, positive interdependence, better performance, learning different skills	Overcrowded classes; noisy groups, negative attitude of learners, unexpected departmental sessions and meetings, disruptive behaviour, resolving challenges

After developing the themes, relationships between the identified themes were identified and grouped based on similarity in content, which also helped in developing patterns.

In the next figure, Figure 5.1 the six themes that emerged from the face-to-face interviews with the Grade 10 Life Orientation teachers are presented, with categories and sub-themes (patterns) extending the figure.

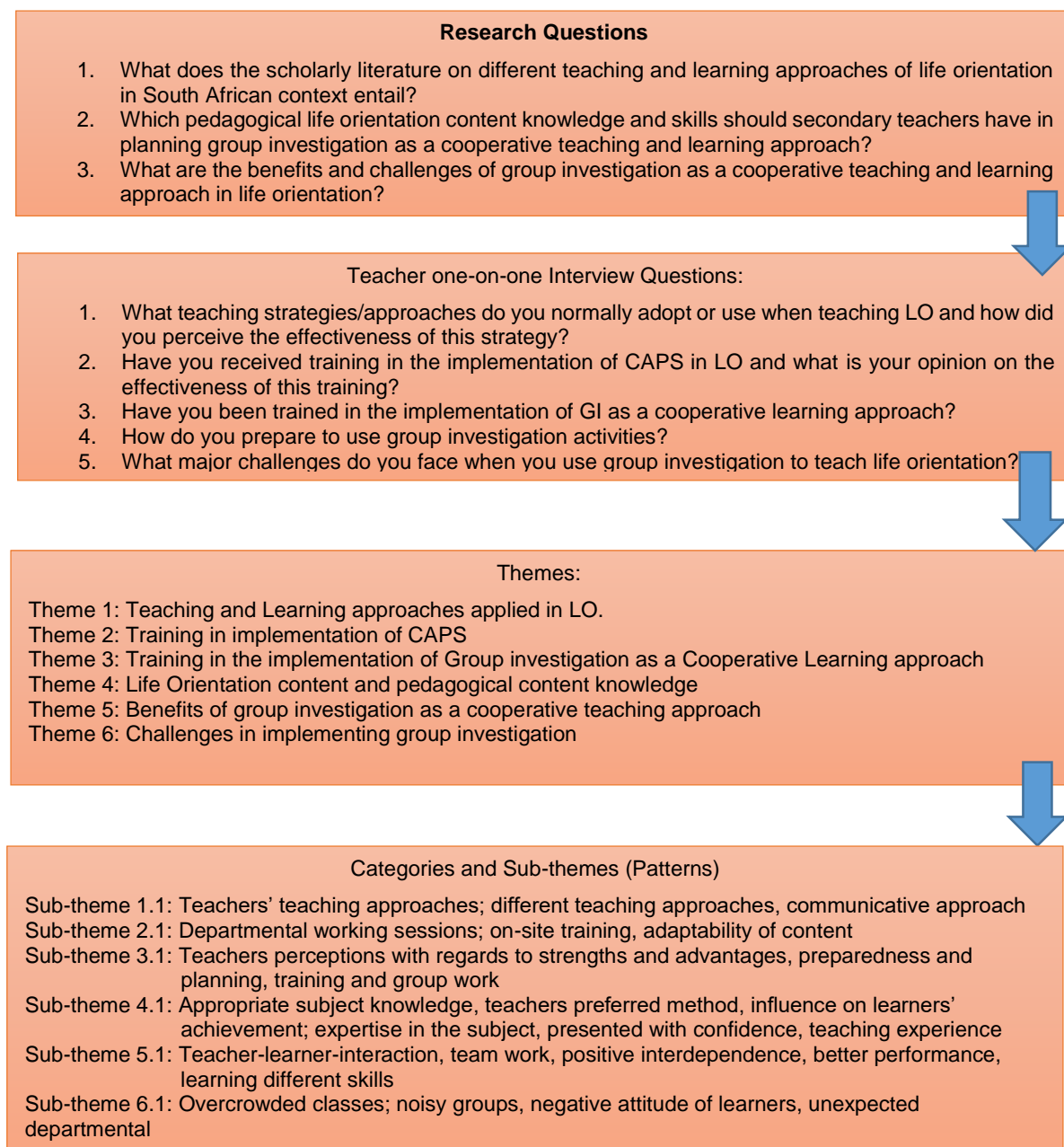


Figure 5.1: Themes and sub-themes (*Adapted from Glaser & Strauss, 1967*)

It became essential to integrate the themes with the overall aim of the study which was to explore the extent to which teachers make use of group investigation as a teaching approach to Life Orientation in selected secondary schools in the Northern Cape Province in South Africa. Figure 5.2 shows the patterns integrated and identified from the themes.

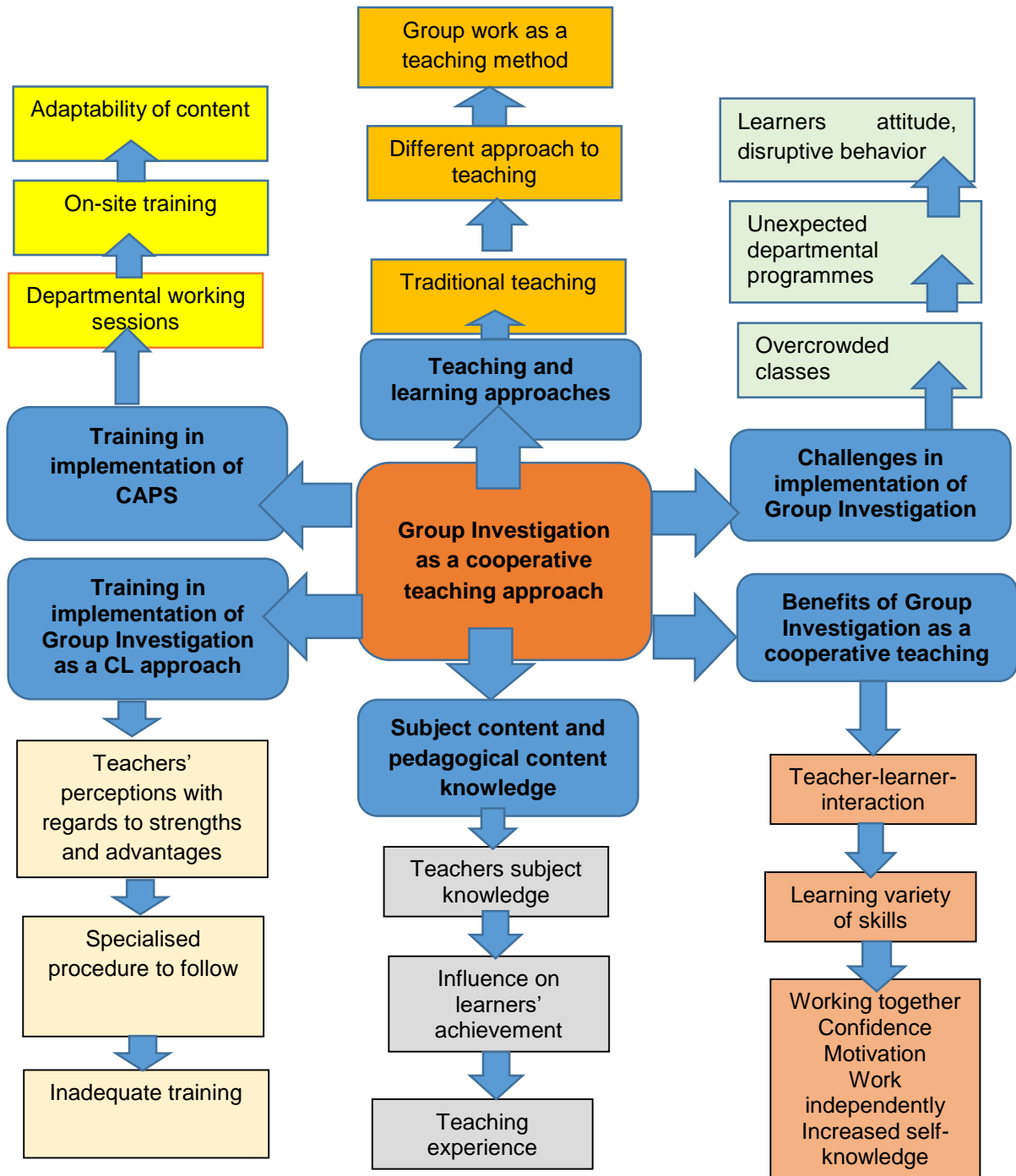


Figure 5.2: Integration between themes and patterns

5.4 DATA ANALYSIS ON INTERVIEWS WITH LIFE ORIENTATION TEACHERS

This section presents the themes emerging from the analysis of interviews conducted with Life Orientation classroom teachers.

5.4.1 Theme 1: Teaching and Learning Approaches

The first theme emerging from the data refers to different teaching and learning approaches used in the Life Orientation classroom. The sub-theme developed from Theme 1 involves traditional teaching, different teaching approaches and a communicative approach.

Sub-theme 1.1: Traditional teaching, different teaching approaches and a communicative approach

Traditional teaching methods were still applied in some case, but there is an ongoing trend that the sampled teachers are changing their teaching pedagogy. In many cases, the traditional teaching methods do not cater for all learners' needs in the classroom particularly with the diverse groups of learners currently in classes. The Curriculum and Assessment Policy Statement (DBE, 2011a:5) highlights the importance of teachers applying various curriculum differentiation strategies in curriculum delivery to ensure access to learning for all learners. However, for teachers to be able to make responsible choices with respect to teaching strategies, they should have a sound knowledge of the didactic principles that applies to teaching and learning (Amponsah, 2014:225). The following were the teachers' responses:

"... is always nice is when you sometimes use the old way of teaching, because learners will learn and they will sit on their desks for the rest of the period ..."
Verifah.

"Before any interaction, I explain to my learners the new content and make sure they understand it by asking questions... when an answer is incorrect, I ask a second learner to respond until the correct response is given" Umathi.

“When time is against me, I write the information on the blackboard and the copy it. Explanation will be done later on. You rushed to be on track with curriculum and to be on the safe side with the management when they do curriculum coverage. This helps you a lot in saving time” Richiboy.

“Cooperative learning and inquiry-based instruction” Chescar.

“What I normally used is the computer and the chalkboard” Phakama.

The views of the teachers above describe the teaching approach they are most comfortable in with, despite that teachers have to move from a teacher-centred approach to a more learner-centred approach. The teacher responses indicate their comfort with tradition talk-and-chalk methods of teaching and remind the researcher of the introduction of Outcomes-Based Education (OBE) whereby learner-centeredness as a pillar of OBE, was adopted in reaction against traditional schooling with its emphasis on information storing. The intention of OBE was to develop learners that can think and work independently, reason critically and construct knowledge within a social learning environment and not just acquiring it (Killen, 2007:92).

Throughout the interviews, the majority of teachers showed that a variety of teaching approaches are important in the Life Orientation classroom. Teacher Chescar emphasised two types of techniques used in her classroom: *“learners must be investigative and self-discoverers in and outside the classroom”*, indicating learner-centred and inquiry-based learning. Teacher Verifah, in line with Amponsah (2014: 225) who concurs with Van Wyk (2010), states that for teachers to be able to make a responsible choice with respect to teaching strategies, they should have a sound knowledge of the didactic principles that apply to teaching of a school subject. Further, it also appears that they differentiate in their teaching strategy of teaching to ensure that all learners are involved in the lesson. The following were the teachers’ response to the teaching strategies they normally adopt:

“Explaining lesson content, give a summary, give exercises, learners to be actively involved, individually or in groups. Some exercise they are working

together and come up with one answer from the group. In these groups they try to find solutions to the problems they encounter” Verifah.

“Cooperative learning, group work, peer tutoring and collaborative learning. Asking learners questions that they must answer as a method is one that works well with our learners...” Richiboy.

“... make sure they understand it by asking questions... when an answer is incorrect, I ask a second learner to respond until the correct response is given. After that I engaged in group discussion, debating, role playing, demonstrations and effective teaching involves everyone. Learners must be able to communicate and be active participants in the groups and to each other or to me and that is why I prefer to ask questions” Umathi.

“Learners must investigate matters and come up with own conclusions. This is what I call, learners discovered what they want to know and we as teachers can just guide them” Chesca.

“I allow them to have insight discussions in their groups and then they must do some proposals and recommendations on certain topics” Ms Petra.

All the teachers from the above-mentioned schools described using a variety of teaching approaches as an effective way of directing learners to expressing and exploring new ideas and information. By adopting the chosen strategy, teacher Verifah believed that the participative teaching approach allows for more teaching strategies to be incorporated in her teaching. These strategies included: *explaining lesson content, summaries active participation of learners, group work and cooperative learning*. However, the researcher suggests that a teaching strategy that does not speak to inclusivity and does not cater for all learners is not a good strategy (Killen, 2007).

Teacher Richiboy uses more than one teaching strategy in his Life Orientation classroom. These strategies are cooperative learning, group work, peer tutoring and collaborative learning. Teacher Umathi also refers to teaching strategies like *group*

discussion, debating, role playing, demonstrations, which emphasises a communicative approach. Teachers confirmed their reason behind choosing that strategy by reporting that:

“The socio-economic background of learners plays a big role. Learners can fit into any group very easy and can work together without any obstacles. They do not have any equipment or facilities, but it did not distract them from solving problems. When activities need problem-solving, learners tend to share ideas and develop plans together. The same with me and a few of my colleagues, we are trying to assist each other when some of the content falls within your field of specialisation, then we do co-teaching. This approach helps me to have a better understanding on the content that I am not familiar with. ... Demonstrations allow them to learn while they are watching and it is easier for them to write or give information ... This make it easier for learners to write essays and using their imagination...” Verifah.

“Learners understand each other better and they can easily explain things on their own level to one another. They enjoy learning in such groups which is small with only a few learners and they are comfortable and tolerant with each other. Group members learns to accept others opinions and viewpoints. This to me is a matter of showing respect to others when they are expressing themselves” Richiboy.

“... they like to talk in small groups and they experience a bit of trust among themselves. Sometimes I just use the question and answer method or sometimes I just present my lesson and after all ask the questions for clarity and understanding. When they are participating and actively involved then I know that learning is happening. Especially in discussions, I have observed that they are speaking and listening to their friends and they are trying to solve the problems without asking the teacher...” Umathi.

“Inquiry-based learning entails questions that is thought-provoking which inspire learners to think for themselves” Chescar.

This sub-theme reflects the importance of teaching and learning approaches in Life Orientation. Teacher Verifah asserts that learners can fit into any group and thus do not find it difficult to work with others. The variety of teaching strategies allows for problem-solving, sharing of ideas and developing plans together. Importantly so, Teacher Verifah also focuses on problem-solving which includes summaries. Summarising information is an example of a skill which forms part of the cognitive demand of Bloom’s Taxonomy. Such skills are particularly applicable in the Life Orientation tasks, which include among others, observation, collating, evaluating of evidence and identifying essential information to help learners make informed judgements.

Another strategy used by Teacher Verifah is co-teaching (Collaboration or co-operative teaching approach). The teacher admits when she feels insecure with specific content areas in the subject, she is open to being assisted by her colleagues and that is an indication how this may be a form of teacher development. In the past teachers tended to work alone with little or no collaboration amongst them. Teachers are no longer encouraged to work in isolation but are expected to engage in more collaborative processes in order to enhance the teaching and learning process. Therefore, it is important for teachers to share ideas, develop plans together, implement those plans and evaluate the outcomes. Hereby teachers shared better strategies that can be developed and so problems can be solved. Teacher Chescar stated that in using the inquiry-based learning approach, it poses questions which are *thought-provoking and inspire learners to think for themselves*. Teacher Phakama strengthened the observation of Teacher Chescar that learners must be inspired, by stating that learners become more open to new knowledge when they learn to see things for themselves. For this kind of teaching, teachers need to do thorough planning which involves other teachers as well as the school management that has to be informed in advance. To strengthen what Teacher Verifah expressed is that cooperative learning is the interaction in which teams “all work for one” and “one for all” (Johnson & Johnson, 2014:845). The researcher argues that co-facilitation as a

teaching approach can strengthen the teaching and learning process in Life Orientation specifically, and in other subjects in general.

The socio-economic backgrounds of learners must not be excluded as reported by Teacher Verifah. Socio-economic factors could have a negative influence on the performance of these learners. Teacher Verifah displays a very positive attitude in her teaching and learning, evident from her statement that "*The socio-economic background of learners plays a big role... They (learners) do not have any equipment or facilities but it does not distract them from solving problems*". The lack of facilities should not hold back learners in giving their best. However, Teacher Phakama demonstrates how learners become fascinated when he uses PowerPoint presentations and other visuals. Learners then *immediately interact with the content and with their group members as a whole*.

Teacher Richiboy declared that learners *enjoy learning in such groups*. Both Teacher Verifah and Richiboy use collaborative teaching approaches in the Life Orientation classroom. Teacher Richiboy believes that collaborative learning lays the foundation for learners to be socially accepted in groups, learning to be exposed to others' perceptions and to express themselves in a respectful way. This kind of interaction helps broaden and deepen individual learner's understanding and fosters an appreciation of benefits of working together. Teacher Richiboy also instils values such as *tolerance, respect and acceptance* in his learners when they are engaging in cooperative learning groups. Teacher Monwabi discussed two teaching approaches he used which are role play and internet search. The researcher argues that internet search might be a problem in the rural areas and where the internet facilities are scarce, but in the more advanced areas it could be of great value. Learners can use their smart phones to access internet which allows immediate access to vital information for the teaching and learning process.

Teacher Umathi develops the idea that the communicative approach allows learners to be involved with actively participating in the lesson. The teacher applies the question-and-answer method and gains positive results. The involvement of learners and the contributions they make in their groups, indicates that group success depends on the involvement of every individual member in the group. Therefore, each member

in the group works on a common goal which ultimately leads to the success or failure of the group. Teacher Umathi also uses demonstrations in her classroom, a teaching method that caters for the visual learner who learns by watching and seeing. This method is shared by Teacher Phakama who uses his computer for specific demonstrations, although it is just once in a while. Teachers are aware that all learners have different learning styles, which indicates the importance of preparing for the diverse needs of learners in the Life Orientation classroom.

Motitswe's (2011:70) study reported that that the respondents, who were all teachers, identified that they used different methods in their teaching. The researcher concurs that whatever teaching strategy the teachers chooses, it must ensure that the learners are acquiring and developing vital skills which assist in the solving of problems they may encounter in their learning by means of being creative and innovative in their thinking.

5.4.2 Theme 2: Training in the Implementation of Curriculum and Assessment Policy Statement (CAPS)

When participants were asked about training in the implementation of Curriculum and Assessment Policy Statement (CAPS) in the subject Life Orientation, many of them outlined their experiences and acquired knowledge in different ways. The following sub-theme emerged from this theme, namely: departmental working sessions, on-site training and adaptability of content.

Sub-theme: 2.1 Departmental working sessions, on-site training and adaptability of content

Two of the teachers have been fully trained to implement CAPS in Life Orientation except for one teacher because of the subjects taught at school. Teacher Verifah is a highly-experienced teacher and has attended all the training sessions held by the provincial department of education. Teacher Umathi, who has many years of teaching experience and can be rated in the same category of years of experience as teacher Verifah, attended the same working sessions held by the department. Teacher Richiboy has eight years of teaching experience, but has only been teaching the

subject for the last five years. Teacher Richiboy was a little disappointed with the training because he had to choose between attending training for the two subjects.

Teachers were asked about training and particularly training in the implementation of CAPS in Life Orientation. Teachers responded and offered their opinion on the effectiveness of the training:

“Yes. Twice per year for about three years concurrently although only two periods per week for Life Orientation ... The training was local and it was done by the departmental official and the provincial coordinator...” Verifah.

“No. I have never received any formal training in Life Orientation, only in Physical Sciences, this does not make you feel good about it. It was because I have taught Physical Science and Life Orientation and I have to choose between the subjects ... This training was done after school hours on-site and I believe that I am not the only teacher who missed out on training and received such training after school. You could ask anything you do not understand because it was just you and the subject advisor. This for me was very positive and developmental and so to say I was able to ask questions on a follow-up school support visit. Those sessions were in fact training from the subject advisor” Richiboy.

“Yes. The Department of Education provided the training and it was facilitated by the Learning Area Manager in the district of Pixley Ka Seme. Sessions were very fruitful and one would just like to go and teach and apply the many methods of delivering the content...” Umathi.

“Yes, I have received training. In Life Orientation the training was positive. I do not think that more can be done in terms of training because the books that we receive are so obvious and the information provided is also so obvious” Phakama.

“Yes. The training was good and the new topics were introduced. New topics were not only introduced, but the relationships among the topics and the assessment standards were discussed...” Monwabi.

It is evident from the above replies that teachers were trained in the district to enable them to implement CAPS in the various subjects, specifically Life Orientation. These training sessions were held by the Northern Cape Department of Education (NCDoE) in the various districts. Departmental trainings were conducted by the provincial coordinators and the subject advisors in the districts.

Van Wyk (2007:170) argues that higher education institutions (HEIs) and training institutes have to address their student-teacher training by providing future teachers with training in cooperatives strategies during their years of study. This statement corroborates the words of teacher Richiboy (*cf.* 5.4.2.2 Sub-theme 2.1) who alluded that “It is important to mention that I have never received any formal training in group investigation as to understand my background”. Therefore, it is clear that these findings concur with the literature, as indicated by Van Wyk (2007). Furthermore, they [teachers] will have to be exposed to cooperative strategies such as jigsaw, STAD, TGT, and group investigations, as reported by Teacher Umathi.

On-site training was done after school hours and Teacher Richiboy expressed his satisfaction as follows: *“This for me was very positive and developmental and so to say I was able to ask questions on a follow-up school support visit”*. “The teacher explained that he was not the only teacher that was not formally trained in CAPS. In the view of the researcher, Subject Advisors catered for those teachers who could not attend the formal training sessions and were able to reschedule have on-site training with them.

Teachers attended training sessions over a certain period of time, with each responding to the query:

“I attended the CAPS training for two weeks per year for about three years”
Verifa.

“The SETA was two hours ... The only workshop I attended was by SETA Bank conducted by the Life Orientation Provincial Coordinator. ... I have come on

board with CAPS during the subject committee meetings that the district office of the Northern Cape Department of Education was having once per quarter, except the last quarter of the year. During the school support visits, the subject advisor took me on one-on-one sessions through the content of CAPS ... Those sessions were in fact my training from the subject advisor” Richiboy.

“I was fully trained to implement CAPS. The training was in the form of a workshop and was about 3 to 4 days twice per year for three years” Umathi.

“Two to three weeks” Phakama 1.2.2. “We were trained since 2008 for two years consecutively. Training was each year for at least one week” Monwabi.

In the above-mentioned quotes, all teachers, Verifah, Richiboy, Umathi, Phakama and Monwabi, highlighted the fact that they had attending training with the provincial and district officials and that training was for at least two weeks per year. The training was conducted over a period of three consecutive years. The researcher argues that the duration of training was appropriate with teachers received a five-day training session during each year of implementation of CAPS. Although one-on-one sessions were held with one of the teachers, it is confirmed that the teacher had received training as well. The fact that no negative responses were uttered by the participants was a positive sign and the researcher would argue that the training was well organised and effective. However, Teacher Chescar reported that he had received *“No training”*.

During the interviews teachers also discussed their experiences with the implementation of CAPS. Most of the teachers showed a positive attitude in sharing their experiences about the implementation of the curriculum (CAPS). Teacher Umathi reported that she enjoys CAPS but her concern was *the depth and scope of the content*. The teacher argues that *teachers can vary with regards to the depth and scope of the content*. Teachers reported on their experience with the implementation of CAPS with these responses:

“My experience up till now is good. CAPS is a good policy and it is skills-orientated. Whatever content you are teaching, it is based on skills” Verifah.

“What I like from CAPS is the same content is taught all over the country as prescribed by CAPS. On the other side, I think I have sufficient experience with CAPS, but you can only excel as the time pass” Richiboy.

“CAPS is time specific. There are specific indicators which content must be dealt at a certain time. You can play around with content within the quarter but as long as you are finishing the curriculum of the term. It is learner-centred and skills-driven. Content is of such nature whereby learners have to be involved in the activities” Umathi.

“The depth and scope of content was now placed according to the relevant grade which was interesting. It is so clear and you have an understanding of it” Monwabi.

Participants were asked about the adaptability and/or flexibility of CAPS is with regards to teaching approaches and delivery of content. They responded as follow:

“Quite adaptable. Educators can use various methods to explain content or bring a message across. It allows you to play with the content, but it depends on the context at that time ... We are confronted with the day-to-day realities at our school and therefore the needs of the learners are coming first. The curriculum is then adjusted according to what you experience in the classroom. My experience up till now is good. CAPS is a good policy and it is skills-orientated. Whatever content you are teaching, it is based on skills. Listening skills, group skills, higher-order thinking skills, arguing or debating skills, there are many to mention ...” Verifah.

“What I like from CAPS is the same content is taught all over the country as prescribed by CAPS. When you moved from here to another province, the content for that time will be the same. Learners and teachers don’t have to struggle around. Learners will be able to respond to the content that will be dealt with at that time ... Adaptability is something teachers require on a regular basis and likely plays an important role, in helping them to navigate with the content and the demands of their work. It is also difficult to adapt and be flexible in

teaching without enough teaching experience in CAPS. There are too many changes and a lot of unnecessary meetings during school days which interrupts effective teaching and takes a lot of time. These things force you as a teacher to adapt the content and your teaching approach” Richiboy.

“It is very flexible and encourages learners to be involved in the lesson. Content can be shifted depending on the context of the school and what the current needs are. But this shift has to be applied within the quarter so that no content must be transferred to the next quarter ... The detail of the content was discussed and how the teachers could use the SMART method to make sure they are not spending too much time on a topic. CAPS is time specific. I enjoy it. There are specific indicators which content must be dealt at a certain time. You can play around with content within the quarter but as long as you are finishing the curriculum of the term. It is learner-centred and skills-driven” Umathi.

“The content is very flexible because you can use any method as you teach in the content of CAPS, irrespective which method you will use, the content is much flexible” Phakama.

In this excerpt, the teachers’ responses illustrate that they are able to adapt the subject content depending on the context of the school and the needs of the learners. What can be deduced from the above responses is that teachers are not only adjusting the curriculum content, but they are also in an ideal position to repurpose the content because they better understand their learners’ needs. They also highlighted the frame of reference in which content could be shifted within the quarter. The common thought that all teachers expressed, is that shifting the content has to be done within the school term and cannot be taken over to the next quarter of the school. Teachers need to cover the curriculum within that specific quarter and that is strictly monitored by the school management teams.

Another important aspect is the needs of the learners. Teachers Verifah, Richiboy, Umathi and Phakama confirmed that the diversity of learners and their various needs must be taken into account. Teacher Phakama explains that *“It also provide for all kinds of learner abilities in the classroom”*. The Curriculum and Assessment Policy

Statement (DBE, 2011a:4) states that in responding to the diversity of learner needs in the classroom, it is important to ensure differentiation in curriculum delivery to enable access to learning for all learners. Only one teacher, Teacher Richiboy, raised a concern regarding curriculum coverage and stated that there are too many interruptions during teaching and learning which takes away from tuition time and is for that reason, is forced to adapt the curriculum when needed.

5.4.3 Theme 3: Training in the implementation of Group Investigation (GI) as a cooperative learning (CL) approach

With regard to the issue of training in implementing Group Investigation (GI) as a cooperative learning (CL) approach, teachers reported differing views. From this theme emerged the following sub-themes: Teachers' perceptions of strengths and advantages, preparation and planning, training and group work.

The importance of training to up-skill teachers on cooperative learning methods aimed at broadening their understanding and professional competence to be an effective resource in the Life Orientation classroom. Alexander and Van Wyk (2014) state that cooperative learning is the teaching and learning method for small groups by means of which cooperation amongst learners is facilitated with the aim of improving the learning experience. A teaching method such as cooperative learning, ensures that learners work together so that group members enjoy a common benefit from the group activity.

Sub-theme 3.1: Teachers perceptions with regards to strengths and advantages, preparedness and planning, training and group work

This sub-theme illustrates how teachers perceive the implementation of group investigation as a cooperative teaching approach and what it can bring to the teaching and learning environment. The teachers reported on their perceptions as follows:

"I can express my view. The preparation of group investigation needs a thorough

planning. You have so much confidence in yourself and you are better prepared to work with learners ... When I do proper planning, learners will immediately know how to perform their tasks” Verifah.

“It is important to mention that I have never received any formal training in group investigation so that you understand my background. I read many sources about cooperative learning and because of the projects, I found group investigation the most proper to assist learners in research and assignments... this is how I try to keep myself updated and make planning for myself easier...” Richiboy.

“I see GI as a progressive teaching approach in a sense that it stimulates learners and everyone in the group, also those who are just listening and watching to what is presented by the different groups” Umathi.

“You must at all-time attend training sessions. Never miss out, it empowers you, keeps you updated, and you just learn new things every time” Phakama.

“CAPS content allows learners to relate with issues they experience in their lives. It is current issues and they enjoy discussion on it” Ms Petra.

“You can explore current issues that is relevant to learners and that makes it interesting so that they want to do more of these kind” Monwabi.

The above extracts indicated that all teachers confirmed that their perceptions of the use of group investigations in their teaching is positive. Teachers, however, realise that certain aspects need to be considered. For example, Teacher Verifah acknowledged that *group investigation needs thorough planning* and that according to her, ensure that learners immediately know what to do. Teacher Richiboy sees *group investigation the most proper to assist learners in research and assignments*, despite the fact that he had never received any formal training on group investigation. What also stands with Teacher Richiboy is that he is a proponent of lifelong learning and believes it is important to keep abreast or *“keep myself updated”* on the latest developments in the subject. However, the researcher realises that an evolving society puts demands on teachers and especially the Life Orientation teachers, to be

knowledgeable and informed about the subject with regards to teaching and learning. Teacher Umathi responded positively about group investigation as a teaching approach seeing it as *a progressive teaching approach in the sense that it stimulates learners*. Teachers have to be open-minded in their approach to the teaching and learning process and keep in mind the diversity of learners as well as their type of learning. Learners with diverse backgrounds must be catered for in order to unlock the potential skills to fulfil their rightful place in society. Teachers Phakama and Ms Petra refer to the fact that *training empowers you* and that the *content is current*, which make the subject of Life Orientation interesting to learners.

Higher Education Institutions (HEIs), have played an integral part in teacher training. However, this training was of such a nature that students needed to be on-site to have first-hand experience of the work place. This sub-theme identified that some teachers had not been trained in group investigation as a teaching method during the pre-service training or in in-service training:

“... One other thing to say, we were trained on cooperative learning but not on group investigation to be specific. When you hear cooperative learning, you think about group work. And that was it” Verifah.

“It is important to mention that I have never received any formal training in group investigation so that you understand my background” Richiboy.

In this excerpt, the teachers' responses indicate that they never received training in group investigation as a teaching approach, but they are able to elaborate on what cooperative learning which includes group work. What is heartening in terms of training is that some teachers such as Teacher Richiboy are motivated to ensure that they are updated on new approaches to teaching such as group investigation as a teaching approach.

In some cases, it seems that teachers are confused about the concept of group investigation and how to implement it. The following statements emphasise the need for teachers to be trained:

“It [cooperative learning] is similar like group cooperation where learners work in groups, just that members have a specific topic which is divided among them” Verifah.

“... cooperative learning, group work and group investigation are all the same, everyone has its own way of application, you must only differentiate when you are busy with group work” Richiboy.

Lesson preparation is an important aspect for effective curriculum delivery. Teachers are compelled to be thoroughly prepared in order to do justice to teaching and learning in the classroom and ultimately to the most important clients, the learners (*cf.* 3.6.4). From the extracts above it becomes clear that teachers acknowledge that lesson preparation or planning has its own advantages. In order to be adequately prepared for teaching Life Orientation, teachers need to be trained in a variety of approaches and in order to facilitate group investigation effectively. Teachers Verifah recognises that thorough planning instils confidence in her to deliver her lessons: *“You have so much confidence in yourself and you are better prepared to work with learners”*. Group investigation is a structured procedure to be followed and therefore it requires that teachers are well trained to gain optimal success when employing his method (Sharan & Sharan, 1992:97). Teachers must undergo training in this teaching approach to ensure that the correct procedures and methods are followed in order for deep learning to occur. With regards to preparation, planning and training, the teachers articulate the following:

“The preparation of group investigation needs a thorough planning” Verifah.

“...When the teacher is well prepared learners see it and then you can act with authority” Umathi.

“Yes. What I have notice in group work, it empowers you, it gives you opportunity to speak, you who never talk, become involved” Phakama.

“Specific training for me would be cooperative learning and why, so many different strategies within cooperative teaching can be used” Monwabi.

In general, Teachers Verifah, Richiboy, Umathi, Chescar, Phakama and Monwabi) believe that learners enjoy working in groups. Learners first start working as a group when they have to discuss the topic at hand. During such group work, learners learn to respect the opinions of other members and at the same time they develop critically thinking skills and be able to listen attentively to their fellow classmates. What has also emerged is that learners feel motivated to work independently. Teacher Umathi) explained that *when they are motivated and able to work independently, they then become more focussed on their work.* Teacher Verifah concurs with the statement made by Teacher Umathi by saying: *“... they become independent workers, information seekers, and so develop confidence it to do things on their own”.* Teacher Umathi mentioned *that learners develop confidence* when they are participating in the groups and very importantly, *they learn to respect others opinions.* Teacher Phakama believes that *it gives you an opportunity to speak and to participate as well.* Learners who are in a position to acknowledge others efforts, use it as a support strategy that makes others realise that their efforts are noticed and appreciated. In the opinion of the researcher, learners who are confident are always an inspiration to other group members while they perform their duties. Slavin (2010:7) recommended that groups who want to be effective, need to acquire basic teamwork and discussion skills in order to make group investigation a success.

The following excerpt reflects the behaviour displayed by learners as they work within a group, indicating their responsibility in taking on the various roles assigned them for the completion of the task:

“It brings classroom discipline and order when learners are busy or when I am teaching and explaining information ... They must find information on their own, doing research on their own to ensure that the end product they will present to the group and then to the class ... work well in groups with other learners and learn to respect opinions of others” Umathi.

“It is helpful to achieve personal learning goals ... by achieving group learning goals ... You could see this when they are divided into pairs and work on their own” Richiboy.

“...After finding out information on their own they come back and report to the leader of the group” Verifah.

“Individuality thinking definitely, but it to brings the individual into a group context and it enhances peer understanding” Chescar.

“Working in a group, they learn to value each other’s opinions and do not have to agree if they have opposing ideas. Interesting, is that they discover things on their own and they feel proud when they realise that they work smart. Another best practice is they never let anyone behind and will always help them so that they can be regarded as a group” Monwabi.

Teachers Chescar and Monwabi agree that group work enhances social cohesion among learners where they have begun to value each other and they will do their best to ensure everyone is successful (*cf.* 3.7.1). In addition, group work in particular has resulted in improved classroom discipline and order among team members. Learners know that they have no reason to be unruly while they are working cooperatively, supporting one another in working as a group. What is a highlight of the responses of Teacher Umathi, is that she seems to have complete discipline over the class while she is teaching or explaining the lesson content. The researcher, based on the responses of Teacher Umathi, argues that differentiation in methods are applied with Teacher Umathi effectively using individualisation as a strategy and then continuing with a group presentation.

Another result of group work is *personal learning goals and group goals* which were mentioned by Teacher Richiboy. Learners come with their own perceptions to the group where they have to put their views on the table of discussion. During such discussions, they realised that the group goals are more important than their personal goals, which means that as a result, the group’s success depends on the contribution and participating of each individual member (*cf.* 2.4).

Furthermore, *reporting* is another aspect of group work. Teacher Verifah indicated that learners have to *report* to the group leader after they have collected their information and contribute to the group. It is to be noted that assigning a leadership role is the function of the teacher to ensure that the group leader manages the group, facilitates all discussions and ensures that all members contribute equally to the group. To be a reporter is one of the roles allocated by team mates when certain duties have to be performed. Learners are responsible to report to the group leader or to the group when it is required. It is important to note that all learners must take responsibility for their work and be able to assist the member who is responsible for reporting. Reporting then becomes a shared responsibility in the sense that all members are eventually responsible for the success of the reporter.

5.4.4 Theme 4: Life Orientation Content and Pedagogical Content Knowledge

This theme emerged during the interviews with Life Orientation teachers when they were asked about their understanding and experiences [perspectives] concerning subject content and subject content knowledge. The sub-themes that build up to this theme were as follow: appropriate subject knowledge of teachers, teachers preferred method of teaching, influence on learner achievement, expertise in the subject, presented with confidence, and their teaching experience. These sub-themes are discussed in the following headings.

5.4.4.1 Sub-theme 4.1: Appropriate subject knowledge, teachers preferred method, influence on learner achievement, expertise in subject, presented with confidence, teaching experience

This sub-theme reveals the commitment Life Orientation teachers towards their professional development and the improvement of learner performance. The participants illustrated that their purpose of being in a classroom is to demonstrate appropriate subject and pedagogical knowledge for effective teaching and learning. Teachers expressed themselves as follow:

“It is not just anyone who can teach the subject, although people assume that. When you understand the method, you teach with great confidence and you are on top of the content (know the content well)” Verifah.

“As a reader I think my framework of knowledge about GI is adequate to assist me in my teaching” Richiboy.

“I think my understanding about GI is broad enough to teach it correctly. I am in a better position to help other teachers as we normally do it at our school because I am on a higher level with regards to my knowledge of the subject” Umathi.

“Because of the experience you have then you know which methods will be appropriate for those learners who are struggling” Phakama.

“Once you have the love for teaching it is easy to integrate pedagogical knowledge into your daily teaching. You must understand how to apply group investigation in order to be successful” Monwabi.

The above quotations explain how Teachers Verifah, Richiboy, Umathi, Phakama and Monwabi demonstrate their level of subject knowledge. They emphasised the fact that they have sufficient subject knowledge and are well informed about Life Orientation content in such a way that they are capable of helping other teachers. From the words of Teacher Verifah, *“It is not just anyone who can teach the subject, although people assume that.”* It can be deduced that it is important for any teacher who wants to teach Life Orientation, to become knowledgeable about the subject (Mosia, 2011:3) and develop subject content knowledge. Another aspect from the above extracts that needs to be highlighted is the statement made by Teacher Umathi who stated the following: *“I am in a better position to help other teachers as we normally do it at our school...”*. The researcher is of the opinion that School C of which teacher Umathi is from, follow a collaborative approach in the sense that they assist teachers who need help in order to teach effectively. Teachers Phakama and Monwabi reflect that experience is of great value in the sense that learners that do not have a working attitude, will realise that because of the teacher’s teaching style, they must work in order to improve their performance. To sum up, Teacher Monwabi emphasised that

teachers must acquire the skill and have a sound understanding on how to apply it in a successful manner (cf. 2.2).

The sub-theme reflects the importance on teachers' understanding of teacher knowledge which incorporates subject content knowledge and pedagogical content knowledge. Teachers Verifa, Richiboy and Umathi were confident in offer their understanding of *teacher knowledge and teacher pedagogical knowledge* and it was well articulated:

"I believe teacher knowledge is an extensive subject knowledge and teacher pedagogical knowledge is the relationship between knowledge of teaching and subject knowledge. I am of the opinion that teacher knowledge is the broad spectrum of knowledge – knowledge that you have learn at the college or university, what you have experience during practice teaching as well as the knowledge you experience in the real classroom environment of teaching. The pedagogy – that refers to the day-to-day management of the subject content with interaction with the learners and how the learners must understand the new formation. Also, how you teach and your way of instruction to the learners" Verifah.

"Teacher knowledge: Understanding or knowing my students which will require my patience. It can be the different skills and capabilities you as a teacher have which make life in the classroom easy. Adaptability knowing that kids are different and learn in different ways and some lessons need unique teaching tools. Teacher pedagogical knowledge refers to the specialised knowledge you developed during the years of study, training, workshops on how to teach in the classroom you will work in one that. It prepares you for the real situations that you will face at schools. It helps for creating effective teaching and learning environments for all students" Richiboy.

"Teachers should have a broad knowledge and understanding. To me teacher knowledge is the basic knowledge a teacher must have when specialising in a specific subject. It is specialised skills and experiences a teacher acquire to perform the day-to-day teaching activities. You must have a good understanding

of the subject matter and even to say, you must be an expert and knowledgeable on the subject matter. It is also a professional competence a teacher should possessed in teaching a specialised subject. What teacher pedagogical knowledge concern, is the way you apply your teaching methods in class in order to improve learner achievement. Content is been presented in special ways to learners to understand the new information, be able to acquire the needed skills and values and become a competent individual in society. Teachers also accommodate learners in a diverse teaching setting” Umathi.

“Teachers’ knowledge is understanding the process of teaching and using the knowledge gained at university, reading and life itself and executing this in the class. Teachers’ Pedagogical Knowledge is having excellent content knowledge about your subject and building skills to support learners in the learning process” Chescar.

“I understand it like the teacher knowledge is something that you have to do every day, it is in you and what you will automatically respond to with that skill. If you are in a classroom, learners will immediately know that this is a very strict teacher. The teacher in you, what you are ...” Phakama.

“Teacher knowledge - is only content knowledge but pedagogical knowledge is promoting learner involvement through their tasks” Ms Petra.

“One demonstrates teacher knowledge when you convey or disseminate information to learners. It is the theory you learnt during your studies and the experience you have gain over the years. Pedagogical knowledge is the how do you do knowledge in the classroom, how to make information understandable to learners, the assessment they will do after you explain it to them and lastly, how learner must show an understanding about the content they leant” Monwabi.

The above responses are presented according to their own understanding of teacher knowledge and teacher pedagogical knowledge. Teachers have a thorough understanding of these concepts with many commonalities in the definitions. The commonalities indicate that teachers have a sound understanding of *teacher*

knowledge and teacher pedagogical knowledge and the advantages it could have for the teaching and learning environment. Every teacher must have an in-depth understanding of the content knowledge to teach the subject matter in such a way that learners have a clear understanding of the new information (cf. 3.10.1; 3.10.2).

When teachers were asked about the GI approach, its benefits as well as its usefulness, their responses were:

“It helps learners to think independently. They learn to analyse information but was outstanding they learn to look at information with a critical eye. That really boost the confidence and self-esteem of the learners. To me it also prepares them for the life after school where they have to do research on a higher level and where the support is not available as it is here. I think this is a good strategy because everything nowadays is about research and working independently” Verifah.

“It is an easy approach and gives my students an opportunity to work together, let them explore themselves. It gives them confidence and build their self-esteem” Richiboy.

“It allows learners to develop skills like, working independently, and higher-level thinking skills, learn to respect others, ability to work through important information for an activity and can take a leader position in the group when others struggle. Learners are motivated to work on their own topic of interest and when they are interest on the same topic, they can work together” Umathi.

“Learners develop self-confidence and are motivated to work in groups. The work alone with their task before going to the bigger group, whist most of them have struggle to find information on their own, meaning there is some form of independent working skills coming forward” Chescar.

“Through research one learns very much because this is how the information is gathered. The same with learners, when learners start to realise, which is most important, then you know worlds are opening up for them, they are getting more

knowledge and that is why we must teach them to discover on their own. That motivates that learners, their thinking (higher order thinking skills)” Phakama.

With today’s education, learners need research skills and working independently. They can put information together so quickly and correctly and it is fascinating. Meaning their analysing skills and summary skills are developing without they knowing. That is tops from GI. Now GI is developing those skills and learners learn that much faster as I thought. One sees that they build confidence, and are eager to talk whether individually, in groups or performing on behalf of the group. That interest me to say. Another important fact is learners start to care for their friends, help them till they are satisfied with it and then they return to their desks” Ms Petra 1.4.2“Personally this is the only method that force learners to develop research and inquiry skills. It teaches learners to be investigative and consolidative and analysing information in order to compile a good presentation. They realise it is not only the individual that counts, but the group as well” Monwabi.

The responses from the above extracts demonstrated why teachers preferred group investigation to their traditional method of teaching and learning. The researcher suggests that the teacher responses outlined many advantages of group investigations. Teacher Verifah refers to how learners were prepared for life after school. It is important that learners acquire and develop the skill of coping with life after school when they are in a position of work or to further their studies and in addition, she felt that it *“helps learners to think independently, analyse information and boost their confidence and self-esteem”*. These are very important skills learners must acquire in order to perform better at school level. Teacher Richiboy 1.4.2) indicated that group investigation gives learners the opportunity to *work together, gives them confidence and build their self-esteem*. It is evident from the literature on cooperative learning that when learners work together over a period of time, working on a task or completing a project, these skills develop (Johnson *et al.*, 2004: 8). Lastly, Teacher Umathi recognised *“that learners develop skills like working independently, higher-level thinking skills, respect others”*. Teachers Chescar, Ms Petra, Phakama and Monwabi) highlighted *confidence* as a common skill that learners develop through group investigation. In summarising why these teachers group investigation as a

preferred teaching approach, they have observed the certain skills which the learners acquire and develop: *working independently, gathering information, higher order thinking skills, analysing and summary skills* and lastly, *investigative skills*. What can be deduced from the above is that learners showed good progress in working together which ultimately leads to improvement in performance of the individual or the group as a whole.

What also emerged from this theme is the influence that group investigation has on learner achievement. When teachers were asked about the effect group investigation had on learners' achievement, the teachers expressed the following:

"It helps them to improve their personal performance as well as group performance" Verifah.

"Learners excel in due to working in groups and the help they get from other learners in the group. Meaning it is not that the individual counts more, but the end goals of the group. When the group succeed, the whole group is excited and feel good about the performance. At the end, there is an overall improvement in their performance and achievements of the group" Richiboy.

"Learners perform well in the group work and one can say they achieving better results in their tasks and presentations" Umathi.

"It has a high and positive influence and builds learners' values and morals ... The slower learners benefit in this process of learning... At the end these skills lead to higher achievement and success" Richiboy.

It has a big influence on their achievement... At the end they are successful in their tasks and obtain good marks ... In comparison to the work of the previous term, learners' overall performance indicate improvement in their mark" Umathi.

"Learners learn better from peers and they remember certain topics when critically discussed in groups" Chescar.

“Learners have started to do better. Their performance has improved. Learners have started to work on their own, not only what I have taught them, but they have discovered things on their own, up to where they were able to” Phakama.

The views of the teachers above acknowledge that group investigation has a positive influence on learner achievement. From the above quotes, teachers demonstrated that they experienced improved learner performance. One of the reasons for using group investigation groups was to assist low-achieving learners improve their performance, develop the relevant skills and take them to a higher level of achievement. In working in group investigation, every member has the responsibility to help others in order to improve their overall achievement. Furthermore, Teachers Richiboy, Umathi and Phakama indicated that group investigation leads to higher achievement and success which implies effective cooperation and interaction among learners.

During the interviews, teachers were asked to express their views on how their teaching experiences and pedagogical knowledge assists them in applying group investigation as a teaching approach. Their responses follow:

“Teaching experience is definitely helping, but you must have a proper understanding in the execution of group investigation and I’m not 100 percent sure of myself. Sometimes you struggle with the procedure, as it requires a specific way of doing it” Verifah.

“I regard my training at varsity as adequate and sufficient which prepared me well for the classroom and that is why I can with the greatest comfort, use my experiences as a teacher to use GI. I had some experience of cooperative learning from the varsity side which help me” Richiboy.

“Like now, I can regard myself as an expert in my field because I had up skilled myself in the subject with my qualifications” Umathi.

“Teaching for a long time really helps when you must practice a new teaching method. With GI it was not that easy, but you could use your experience in

forming groups, keeping discipline and re-arrange groups when they become unruly” Ms Petra.

“Teaching experience will forever be important in any classroom. Instructing learners to keep to the rules was easy, but to keep that instruction during teaching time, needed courage to. Dividing them in groups, explaining their part they will do and put them to work is part of our experiences. Discussions were at time very noisy and that is where the teachers must come in strongly. To keep the discipline and the noise levels low. Learners who want to dominate the group was keeping me busy. So, experience play an important role in executing GI” Monwabi.

Every teacher confirmed that their teaching experiences assist them in their everyday teaching and learning when they applying group investigation. It is clear from the above extracts that none of the teachers received formal training in group investigation as a teaching approach. All the teachers have a form of training in cooperative learning in general, but they lack training in group investigation as an approach. Teacher Verifah is *not 100 percent sure about herself* and she *struggled with the procedure* of group investigation as such. Teacher Richiboy had some experience of cooperative learning from his study years which he called the *varsity side*. Teacher Umathi called herself an expert because she had *up skilled herself in Life Orientation [the subject]*.

However, Teachers Ms Petra and Monwabi stated that they found difficulty with the execution and application of group investigation (*cf.* 3.10.2). These teachers solely depend on their years of teaching experience, but show some success. The researcher recognises that teaching experience plays an important role in teaching and learning and one can only learn by experiences in the real classroom environments.

5.4.5 Theme 5: Benefits of Group Investigation as a Cooperative Teaching Approach

This theme reveals the benefits of group investigation as a cooperative teaching and learning approach. When teachers were asked about the benefits of implementing

group investigation as a cooperative learning approach/strategy, the following sub-themes emerged: teacher-learner interaction, team work, positive interdependence, better performance and learning of different skills.

Sub-theme 5.1: Teacher-learner interaction, team work, positive interdependence, better performance and learning different skills

As stated by Van Wyk (2007), “Cooperative learning techniques have the potential to, on the one hand, stimulate the development of thinking skills, and on the other, enhance social interaction necessary for cognitive growth and effective learning”.

Teachers confirmed that they use teacher-learner interaction to facilitate learning especially with questioning:

“When learners do not understand, I approach the group to discuss or to re-explain again or when I realise it’s the whole class that needs to be addressed, I speak to everybody, the whole class” Verifah.

“Sometimes I repeat when they do not understand the question correctly or when it’s unclear for them. When I ask questions, I make sure that everyone listen so that I am able to ask anyone to respond” Richiboy.

“Learners tend to dominate the rest of the group members by asking questions alone instead of giving opportunities to other members. When I notice that, I quickly talk about group dominance so that it never happens again” Umathi.

Teacher-learner interaction is one of the important elements of cooperative learning. From the above extract, it is evident that the teachers interact with the learners during the group investigation learner activities. The interaction is further established when the teachers used the question-and-answer method to ensure that learners are participating and are active in the groups. The question-and-answer method was not only used for the individual learners to respond, but Teacher Verifah explained that she *diverts the questions to the other group members* in order to involve the whole class in the discussion. In this case, learners were free and they could respond openly

to questions. When learners respond easily, this implies that they were relaxed and the classroom atmosphere was then conducive to teaching and learning.

During group investigation, teachers move from group to group to see where they can assist. Moving between the groups was also a strategy to keep order and to establish discipline in some groups. The responses of the teachers were always positive whereby learners were encouraged to participate in their groups and that everyone should have an opportunity to speak. Teacher Umathi indicated that she is aware and on the lookout of learners who *like individual attention*. Such learners must be assisted in order to learn them to show respect to others and have respect for others opinions (cf. 3.7.4).

The teachers expressed their views on how learners worked with each other within their groups [interdependency] respectively:

“...At some exercise they are working together where everyone is participating and involved and come up with one answer from the group. In these groups they try to find solutions to the problems they encounter” Verifah.

“...they like to talk in small groups and they experience a bit of trust among themselves, like helping each other in a polite way. I have observed that they are speaking and listening to their friends and they are trying to solve the problems without asking the teacher” Umathi.

“... give learners opportunity to work together and be able to express themselves” Richiboy.

“...After finding out information on their own they come back and report to the leader of the group” Verifah.

“Group discussions helped to reach the individual and sharing information among them. They make sure all members are on par and they know what they are doing” Ms Petra.

From the above expressions, the researcher attests that positive interdependence is established among the learner groups (*cf.* 3.4.1.1). Van Wyk (2007: 156) explains that “In the context of cooperative learning, positive interdependency can only be created if the group members have common goals, the work is distributed among the members, information is shared among group members, and the group is rewarded jointly”. Group members realised that it is not only the individual that must be in charge, but how they interact and contribute within their respective groups. Teacher Verifah, indicated that *learners worked together, discussed information and then decided to respond with one answer*, which means that learners might have reached consensus within the group to respond as one.

Furthermore, Teacher Umathi strengthened the idea of positive interdependence by referring to *the trust learners experienced among each other*. This means that learners have learnt that they can depend on each other, be open to one another and learn to understand the social world of their fellow group members. The trust relationship will also be to the advantage of learners to understand each other and to learn that they can also value each other as an equal member.

Moreover, Teacher Richiboy declared that learners were given opportunities to work together and to express themselves in their own way. That implied that learners have an opportunity to communicate freely and can regard the members as equal individuals. Teachers Ms Petra and Monwabi also refer to the benefit of group work. Learners help each other and are sharing information and while these groups are monitored, unruly behaviour or individual dominance can quickly be identified and resolved. In the view of the researcher, learners become aware of the role the group leader has to play and has so develop confidence and trust in the group leader to report on behalf of the group. Therefore, the researcher agrees with Van Wyk who established that groups will be rewarded jointly (*cf.* 3.4.1.1).

In implementing cooperative learning strategies, teachers confirmed the effectiveness group work or team work by reporting the following:

“They learn to respect one another, because they are of different backgrounds, have different personalities and must learn to work together” Verifah.

“Members of a group is responsible for the success of the whole group. They learn to trust each other, because every one of them are responsible for the success of the group. I emphasising the idea and the importance of that everyone in the group must do their best in working together on individually” Richiboy.

“When learners are used to group work and specifically cooperative or group investigation activities, they are able to work fast in looking up info... collect it and work on it” Umathi.

“...With that goes respect, caring for one another and taking responsibility for their own and their group work” Phakama.

The above responses acknowledge the importance of group work and group success. It is important that learners must know how to work together and so it becomes the duty of the teacher to ensure that learners are given the necessary guidance and support to be effective team members.

However, Teacher Verifah mentioned an interesting point. The teacher refers to the fact that learners must learn to understand that whatever differences they experience in the groups; they must divert it into positive relationships among themselves. Positive relationships can only be an opposite force to attitudes that can ruin healthy relationships (*cf.* 3.8).

What was also positive from the responses of the teachers was their confidence that group investigation improves learners’ performance and learning of different skills. Continuing with the benefits of cooperative learning strategies, teachers responded as follow:

“GI activities improves students’ academic achievements. It is helpful to achieve personal learning goals ... by achieving group learning goals. This helps them with higher order thinking as well as personal skills” Richiboy.

“Learners develop skills to interpret information and analysing information on their own.” Umathi.

“It help them to improve their personal performance as well as group performance” Verifah.

“It allows learners to develop skills like, working independently, and higher-level thinking skills.” Umathi.

“Although achievement is important, to my learners develop skills like critical thinkers, working on their own, collect information on their own, be confident, and learn to respect others and so on. At the end these skills lead to higher achievement and success” Richiboy.

“They can put information together so quickly and correctly and it is fascinating. Meaning their analysing skills and summary skills are developing without they knowing. That is tops from GI” Ms Petra.

“Personally, this is the only method that forces learners to develop research and inquiry skills” Monwabi.

What emanates from the responses of the teachers is that all agree that group investigation helps learners to improve their scholastic performance. The researcher believe that it is every learner’s goal to ensure they improve their performance in the classroom. Teacher Richiboy admits that group investigation has a positive influence on learners’ academic achievement. In addition, it was reported that learners acquire and learn a variety of skills. It is a high priority of the CAPS that teachers must ensure that learners acquire the necessary skills to be effective and productive citizens in society. The policy also emphasised that the curriculum is skill-driven instead of content-driven like in the past educational fraternity.

5.4.6 Theme 6: Challenges in the Implementation of Group Investigation as a Cooperative Teaching Approach

Teachers were asked to share the challenges experienced during the implementation of group investigation as a cooperative teaching approach in the Life Orientation classroom. The sub-themes that emerged were as follow: overcrowded classes, noisy groups, negative attitude of learners, unexpected departmental sessions and meetings, disruptive behaviour and resolving challenges.

Sub-theme 6.1: Overcrowded classes, noisy groups, negative attitude of learners, unexpected departmental sessions and meetings, disruptive behaviour, resolving challenges

The study indicated that teachers are faced with serious challenges that hinder them from implementing GI as a cooperative learning teaching approach. During the interviews, teachers highlighted some contextual factors that they experience when implementing group investigation as a cooperative teaching approach.

“Classes are too big. Big classes are the main concern...” Verifah.

“This is because of the large classes at school where you cannot give attention to all learners at once. Classes with fifty plus learners are difficult to manage and our management does not to hear that excuses” Richiboy.

“Not all our classes are large in size, but those which are big, you experience many unruliness and lack of discipline...” Umathi.

“One can take it further by saying that this is cursed by the large classes...” Chescar.

“... when the groups are too big because of large class sizes, then they become unruly and not all cooperate and give inputs” Phakama.

“Due to overcrowded classes, learners come to the front to explain their problems and then we interact on how they understand” Ms Petra.

Overcrowded classes are in general a challenge in teaching and learning in most public schools in South Africa. Teachers are frustrated and find difficulty with the large numbers, the limited space with the classrooms and maintaining discipline with the large classes. What also hinders effective teaching and learning is learners belonging to multicultural and multi-social backgrounds. Teachers Verifah, Richiboy, Umathi, Chescar, Phakama and Monwabi demonstrated their frustrations and when asked how the challenges affect their teaching and learning, they respond as follows:

“When you call them to come to the front, it takes time and sometimes you feel so hopeless ... People use it to escape the classrooms because of the ill-disciplined learners” Verifah.

“It is difficult to move around and paying individual attention to groups that need help. Classes with fifty plus learners are difficult to manage and our management does not hear that excuses” Richiboy.

“As a teacher, I deal with different personalities and individuals who have different backgrounds and that is time consuming” Chescar.

“... there are many challenges. Or it is noisy, you never know who is talking, and you cannot really move comfortably to the groups to see what they are busy with. Group work is a big problem, for me it is better not to have group work with big class sizes” Phakama.

“It is difficult to apply group investigation in our classes. Classes are with big numbers of enrolment and it is up to 50 learners per class. It is even difficult to work in groups, because you cannot work in and between the different group to assist them or paying attention to those in need. Overcrowded classes bring along disciplinary problems and misbehaviour” Monwabi.

Over-crowded classroom conditions not only make it difficult for learners to concentrate on their lessons, but limit the amount of time teachers can spend on innovative teaching methods such as group investigation and other cooperative learning methods, leaving teachers stressed and overworked. Adendorff and Adewumi (2014:461) assert that it is hardly possible with large class sizes and the facilitation of group work is challenging when there is limited space and no teacher assistance to manage large classes.

The large numbers of learners in overcrowded classes have consequence, as reported by the teachers:

“Big groups are unruly; they are noisy and some even ignore you when you are talking to them. This also deprive those who want to learn the opportunity to do so. And I think it is frustrating to them too” Verifah.

“They are noisy, disruptive and that is frustrating” Richiboy.

“You experience that the bigger groups are noisier than your smaller groups” Umathi.

“Learners tend not to listen to you and they do not focus on the work. They are misbehaving and ill-disciplined and just want to be seen by their friends” Ms Petra.

“Learners are disrespectful towards their friends and to me as well. The wait-for-the-other-one factor arise easily when learners are not sure about their facts. Some are dependent on others and are not that willing to work on their own. This creates wait-and-see what will happen before learners start working on their own” Monwabi.

The high noise levels make it difficult for learners to concentrate on the lessons and the fact that they learn at different rates and in different ways, limits the amount of time

teachers can spend on teaching and learning in the classroom. To substantiate the above-mentioned statements, some of the teachers' reactions were as follow:

"They seem very much uninterested in the class and sometimes you observed learners are bored and not keen to participate during these periods" Richiboy.

"Some show a lack of interest and excitement and are not willing to participate. Learners have their own day-dreaming and sometimes one can take it to their own circumstances at home" Umathi.

"... learners cannot concentrate for long as if they have a short concentration span. They are staring through the windows and have no interest in what the group members are doing" Chescar.

Indeed, to confirm what the teachers have indicated, one can argue that this can also be seen as a central reason for behavioural problems and that all these ongoing challenges emanate from the overcrowded classes. Learners lack focus in the class and specifically on the tasks at hand. It could be a way in which learners might seek attention for help that is why they are bored, uninterested or have a short concentrate span. Not only could it be to the large class sizes, but it may also be due to the fact that learners need time to break because the session are too sessions for them to fully and effectively participate in their groups.

Another challenge raised by the teachers is the unexpected departmental sessions and meetings at school which interrupt the teaching schedule:

"Unexpected departmental programmes also stand in your way when you apply cooperative work. Because of the distances that we have to travel, it takes many of our time and it is sometimes two days in a week that you have to attend these sessions. Although circulars are received in advance, the time lost is difficult to recover" Verifah.

"Another burning factor is the different meetings we have. You have meetings from the district office, meetings at school or provincial programmes that are

running. I think these meetings take so much teaching and learning time and when time is lost, it is hard to make up for it. Even meetings at school..." Richiboy.

"Don't mention the meetings, it is terrible here. That makes me negative because ... especially programmes departmental programmes, the Life Orientation periods are always at stake. When you speak your mind, this mean trouble with the school management team" Chescar.

Departmental meetings are necessary and it is to the advantage of the teachers and learners at school. However, teaching and learning is compromised by unplanned meetings, meetings that take up much of teaching and learning times, which are difficult to recover. In this excerpt, the teachers' responses illustrated that they are not against these meetings, but it must not compromise teaching and learning.

Other challenges which emerged are as follows:

"This is very painful when learners are so disrespectful and misbehave" Verifah.

"They are noisy, disruptive and that is frustrating. You are so frustrated because you have to encourage and talk to the learner all the time" Richiboy.

"When learners are not used to the method, especially the groupings, then you experience challenges like lack of discipline, disruptive behaviour in the groups or just learners who refuse to work with others in a group" Umathi.

"The upbringing of each learner is different and difficult and this cause conflict among groups and disagreements in each group. Learners are never-minded and likes to disrupt the classes at certain times... They are starring through the windows and have no interest in what the group members are doing" Chescar.

Most teachers described unpleasant experiences they have to face when they have to confront ill-disciplined learners. This kind of learner behaviour make it difficult for teachers to perform their core duty, which is to teach. Constantly reprimanding learners is time consuming and spending time disciplining the class, deprives others of time for learning.

Even though teaching is the main purpose of teachers, these are confronted with many challenges which they need to overcome. However, some teachers are resilient and with experience have found ways in resolving challenges experienced in the Life Orientation classroom:

“With big classes I have no solution, although it is a setback for me. The time aspect, I copy notes to save time for other activities. But because of our learners and that we as teachers have a responsibility towards quality education, I will try my best to deal, even with frustrations, with these encounters. It is not within the hands of the classroom teacher, but the school management teams, the district offices and the National Department of education have an overall responsibility for good quality education to all” Verifah.

“What seems to work well was the fact that I had one-on-one sessions with learners who disrupt my class and record these incidents in my journal. I am teaching more than two classes and am having these sessions after school with the permission of the school principal. The grade head or the departmental head are always sitting-in in these sessions. To me it was a way of correcting the behaviour and understanding the background of these learners much better” Richiboy.

“I enforced discipline and am very strict with learners who do not cooperate. I have to make sure that everyone in the group has a role to play and I monitored their participation in the group” Umathi.

“Individually placing learners into a balanced group and controlling and monitoring the class ...” Chescar.

“What we can do is not to have group work especially with big classes. Rather work on the data projector to attract the attention of everyone” Phakama.

“Makes use of extra-classes and intervention sessions. The best option is not to have small group work activities when you have overcrowded classes. When the

environments are not conducive for teaching and learning, then there is no sense in working in small groups. Since learners are sitting in pairs, I would prefer this method as it is also cooperative learning” Ms Petra.

“Stop working in groups because it does not work in our situations and environments [large class sizes]. Rather start with small groups [half class size] and not trying to involve the whole class. Misbehaviour should be identified very early and reported to the principal” Monwabi.

It seems that with time and experienced, all teachers have developed one or other strategy to resolve their challenges in their classrooms. What can be highlighted from these responses is that no teacher is negative and demotivated because of the circumstances. They remain positive and are able to walk the extra mile with these learners at their respective schools (*cf.* 3.9).

5.5 ANALYSIS OF GROUP INTERVIEWS WITH LIFE ORIENTATION LEARNERS

Seven group interviews groups in total were conducted with each group having eight members. The group interviews were arranged by the Grade 10 Life Orientation teacher from each school. Due to the pick-up time of learners by their various transport after school, it was difficult to have those learners that were identified by the Life Orientation teacher to attend the interview. The other challenge was the duration of the interview as some learners became unruly and irritated due to the length of the interview session.

Figure 5.3 shows the sequence of constant comparison data analysis generated when analysing the data collected during the group discussions with learners.

Research Questions

1. What does the scholarly literature on different teaching and learning approaches of Life Orientation in South African context entail?
2. Which pedagogical Life Orientation content knowledge and skills should secondary teachers have in planning group investigation as a cooperative teaching and learning approach?
3. What are the benefits and challenges of group investigation as a cooperative teaching and learning approach to Life Orientation?
4. Which strategies/framework could be used to improve teachers' proficiency regarding group investigation as a cooperative teaching and learning approach to Life Orientation?

Learner Group Discussions:

1. Group processing

- 1.1 Tell me about your experiences in the group?
- 1.2 In your opinion, describe the performance of the group?
- 1.3 How have your interactions in class with your peers changed over the course of this period?

2. Learners' perception on working in groups.

- 2.1 Explain your expectations that you have had at the beginning with group work?
- 2.2 Are any of these expectations met or not? Please explain.
- 2.3 How is group work different to working individually?

THEMES	SUB-THEMES AND CATEGORIES (PATTERNS)
Theme 1: Team work.	Sub-theme 1.1: Positive attitude of learners, collaboration, building relationships.
Theme 2: Conducive learning atmosphere	Sub-theme 2.1: Classroom atmosphere, Learners encourage each other, strong leadership, socialising skills
Theme 3: Achievement on task	Sub-theme 3.1: Group goals, members' contributions, sharing responsibility, positive self-esteem
Theme 4: Learner-teacher interaction	Sub-theme 4.1: Support given, learners responding, mobility and praising
Theme 5: Skills learned by learners	Sub-theme 5.1: Higher order thinking; learning of values; working together
Theme 6: Challenges and confrontations	Sub-theme 6.1: Disruptive behavior, lack of commitment, members' side-lining, depending on assistance.

Figure 5.3: Constant comparison analysis of learner group discussions
(Adapted from Glaser & Strauss, 1967)

As indicated in Figure 5.3, six themes emerged from the group discussions with the Grade 10 Life Orientation learners. The responses of the learner group discussions [interviews] are presented below:

5.5.1 Theme 1: Team Work

Specific questions prompted discussion during the group interview to enable the groups to reflect on their experiences, performance, interactions in the different groups. The sub-themes that emerged under this theme are: positive attitudes of learners, building relationships and collaboration.

5.5.1.1 Sub-theme 1.1: Positive attitude of learners, building relationships and collaboration

Learner groups (LG) expressed their positiveness in working in groups, revealing that:

“It was wonderful and the friends was fantastic to work with. The group was an interesting group of learners which make you laugh at times” LG1.

“Working in groups was good. We learnt to work together ...” LG2.

“The experience was good but learners did not participate as they should be and as the teacher explained it to us” LG3.

“We have worked well together and were listening to each other” LG4.

“What I experienced is that we are learners with different abilities and the fast learners will help the slow learners to do their work right and so” LG5.

“After fights the members work together and support those who could not give answers. I help my friend in the group and we work together without any fights” LG6.

“Group members were positive, except for those who wanted to take over” LG7.

Learners learn to work in groups together and in doing so they develop a positive attitude among themselves. They demonstrated their happiness being in the Life Orientation groups because they have enjoyed the interaction. Although members enjoyed the group work, LG3 showed that their experience was good despite some learners not participating (*cf.* 3.7.4).

Learner groups expressed how group activities in Life Orientation helped develop closer relationships. Learners reported on how have their interactions have changed over the course of this period:

“We were very shy at the beginning but it improved later on. After the second or third day, one feels so comfortable that you were at ease...” LG2.

“We start to trust each other and one could help when you see you friend does not know or want some help”. LG3.

“We learn to know each other and the relationship is so much closer now.” LG4.

“Then as the time goes, we will be able to know each other better and the relationship will be much stronger”. LG5.

“Things has changed for the better. Members become very concern about others and just want to assist” LG6.

“We help each other and when someone not knowing what to do, we were there to help. We had a good relationship and have respect for each other” LG7.

Learners illustrated that it is important to find a way to work together as a team. Learners had to interact with one another to develop a working relationship and to put the importance of the group first. However, they have shown improvement in building relationships especially when they see that it assists one another with the learning process.

Learners commented that they helped each other when they are done with their tasks at hand. They indicated that they support each other individually and sometimes group-to-group. This indicates collaboration learner-to-learner and group-to-group. Learner groups in all schools confirmed that the Life Orientation classroom was the place where they could collaborate in performing their tasks:

“Group work also broadens your own point of views because members understand things not the same as you do” LG1.

“We also agreed that it is important to have an understanding of the content that we will work with and that we must ask for help if you do not understand” LG2.

“They were willing to participate and to help members that struggles” LG3.

“When we did not so well in the task, the blame was not put on one member, but everyone took the blame for it” LG3.

“In a group you need to combine – work as one. Work together. You must not be selfish; we must share information” LG5.

“Members start to trust each other and we manage to work well together” LG6.

“I am satisfied with my expectations in the group. We listen to each other, show respect and at times we try to help one another” LG7.

The above excerpts confirm that learners realise that are not working in isolation anymore, and as a result, they tried to help each other when struggling or finding a solution to a problem. Within a collaborative manner, working together boosts weaker learners' self-esteem and confidence as they might realise that they do have the potential to deliver quality work. In essence, learner groups (LG5) confirmed the importance of cooperative work by saying *in a group you need to combine*. Learners could also rely on the strength of other learners in order to improve their own performance.

5.5.2 Theme 2: Conducive Learning Atmosphere

The learners in the group were asked for their perceptions of working in groups. From the data collected, the following sub-themes emerged: classroom atmosphere, learners encourage each other, strong leadership and socialising skills.

Sub-theme 2.1: Classroom atmosphere, learners encourage each other, strong leadership and socialising skills

Most of the learners were delighted to talk about their Life Orientation classrooms and were eager to relate their experiences:

Our Life Orientation classroom is interesting and fun. We learn many new concepts we didn't even know that it exists. It was really fun doing investigations.
LG1.

“We understand each other and the activities were fun, even though sometimes we get more difficult tasks, but we enjoy it and still want to learn more” LG2: 1.1.

“I enjoyed the LO class and we need to learn, but sometimes the teacher was hard on us but we still enjoy the LO class” LG3.

“It was first difficult to work with learners you do not know. Later on, we mingled and was comfortable” LG6.

Learners demonstrated the enjoyment in learning in the LO classroom (*cf.* 3.7.5). It was a pleasure to become involved and learnt things that they were never had thought about. Learner groups explained that their learning was not always that smooth as they sometimes got difficult tasks to complete, but it has not put them off in their learning. LG3 indicated that the teacher put pressure on them though they still enjoyed the learning.

In contrast, LG4 indicated the difficulty in taking on the leadership role particularly as the leader misses out on the fun. Group leaders have to carry the burden of managing the responsibility of others who behave in a disorderly manner.

“Although the class was noisy and we are the group leaders, when we say, you are making noise they say “you too are making noise” LG4.

“We talk to those who want to fight, but they do not care and is repeating the same thing” LG5.

“Group members were positive, except for those who wanted to take over” LG7.

The researcher suggests that it is important for teachers to understand the role that group leaders have to play in the sense it can bring result in conflict and unpleasant responses from other in the learning environment. In addition, these kinds of opposing behaviours need to be addressed so that learning in a cooperative classroom environment takes place.

Learners realised the importance of encouraging one another in order to reach their goals and not giving up on one other. They expressed themselves in the following way when they were asked to share their expectations during group work:

“Group members helped one another when you were struggling or when you were not sure about an answer” LG4.

“We have learnt to listen to group members when they were talking and we encouraged them”. LG2.

“But in many instances, they encourage you first to write down your suggestions...” LG4.

“I help my group members and motivate them to not giving up ...” LG3.

“We help each other with the spelling of words in the task and where members are down, I ask them to be strong and try again” LG5.

“For me our group members must work together and encourage each other when things get tough” LG6.

“If we can trust and care for every member in the group, then I know I am in the right group” LG7.

Learners assist their peers, motivate and develop a positive attitude when working in groups. Learners encourage each other and develop good communication and trust among members so that learners learn to be unselfish towards one another and are grateful for the assistance and encouragement from others to facilitate the learning process. Learners develop the ability to withstand disappointment, learn to be confident and view themselves as valuable members. Learners felt positive about the

interactions, the development of interpersonal relationships and particular skills. Learners' reactions to cooperate and socialising in groups were as follows:

"They felt that they are about to learn new things and especially make new friends... Working together and not feeling afraid in making a contribution was good. Group members helped one another ..." LG4.

"There must be good behaviour in the group". LG5.

"We have learnt to listen to group members when they were talking and we encouraged them" LG2.

"We also learn to trust one another, show respect and we sometimes encouraged each other not to feel bad when things were not so good" LG4.

"Later on, things lighten up and group members could talk freely to one another, asking for help when things were not clear or you could openly have assisted members that needs help" LG2.

"I help my group members and motivate them to not giving up, but to try over and over again" LG3.

"Understanding each other. In a group you need to combine – work as one ... You must not be selfish; we must share information (knocking the head)" LG5.

"A few members in the group was concern about others and they offer their assistance during the activities" LG6.

“We listen to each other, show respect and at times we try to help one another”
LG7.

The above quotations explain how learners’ groups in a cooperative classroom support and encourage each other. Learners tend to cling together and have high motivation levels in the groups. LG2 uttered words like *freely talk* and *could openly assisted members*. The researcher asserted that members in group have socially accepted one another into their groups. This is confirmed by LG3 whereby learners *motivate each other* and encourage them not to give up, but *to try over and over again* in order to be successful. Furthermore, the researcher argues that the positive inter-group behaviour is strengthened by the words of LG4: *learn new things and especially make new friends ... learn to trust one another, show respect*. To continue with, it is clear that learners need a positive, social environment conducive to performing better at school.

5.5.3 Theme 3: Achievement on Task

Learners’ groups were asked for their opinion on their performances, their experience of group and individual work during group investigation. The sub-themes that gave meaning to this theme were: group goals, members’ contributions, sharing responsibility, and positive self-esteem.

Sub-theme 3.1: Group goals, members’ contributions, sharing responsibility, positive self-esteem

Successful completion of a task is one of the main outcomes of teaching and learning. The quality of a task can in many instances be determined by the clarity of instructions that introduced an activity. Learner groups expressed themselves as follow to the following question: In your opinion, describe the performance of your group?

“Our group was excellent in performance. We could respond in time when the teacher needs an answer or wanted to know who are finished” LG2.

“Our group performed very well because group members have explained some of our tasks just the way we prepared it” LG3.

“We were a fast and excellent group. Most of our presentations were good and the teacher praised us for that” LG4.

“Our group was out to beat all other groups. Members listen to each other when they comment on the task. Everyone was happy when we get our results and it was good ... Everybody give inputs and there one could see that all did their homework because the information was correct and spot on according to the teacher” LG6.

The above response confirmed that learners' groups were very focused on their tasks as they had a common goal to achieve (cf. 3.7.2). Learner groups illustrated that it was not always easy to work in a group to achieve a common goal. Some learners showed disinterest in the activity and they kept themselves busy with other work:

“Some of the learners refuse to participate and prefer to work on their own. Two or three learners in our group was not interested in the task at hand and they rather completed work from other subjects without the teachers noticing” LG1.

“It was difficult to work in this group. Learners were negative and they did not have any interest in the task that we have to complete. The teacher was on our case and every time he asked how far are we. That was not a good feeling and you could not change to another group” LG7.

The majority of learner groups acknowledged the contributions that learners in their groups made towards completion of the activities:

“The group managed to complete the activities in time and did not ask for extra time from the teacher. Every time we tried to be first to present our work cause the group was fast” LG1.

“Everybody tried their best in their individual tasks and when we must summarise, everyone could contribute” LG2.

“...group members have explained some of our tasks just the way we prepared it” LG3.

Everyone in the group gave their best and our motto was “one success is everybody’s success”. That worked in our group” LG4.

“We advise each other and also unpacking when someone ask you that he do not understand ... We share information, help each other and try to give the correct answers when the teacher asks for it” LG5.

“Everybody give inputs and there one could see that all did their homework because the information was correct and spot on according to the teacher” LG6.

The researcher asserted that in establishing positive interdependence within the groups, learners must be offered equal opportunities to contribute their ideas to the group. The same applies to the sharing of resources and knowledge with the view to achieve the common goals of the group.

During group interaction, work ethic skills such as responsibility within the groups were developed:

“Sometimes you find out that you are off the point and then other members could bring you back on track again” LG1: 2.3

“Members are assigned to specific roles, like note taker, reporter, timekeeper, group leader and so on to be for the duration of the group work activity” LG2.

“Every time the teacher allocates roles to everyone in the group and monitors so that you play an active role in fulfilling your duties in the group” LG3.

“But in many instances, I prefer to be the note taker [scribe] or the reporter who will make the presentations of the group” LG4.

“I prefer to work individual because in a group sometimes others do not understand the work then you have to explain it to them and I do not like that” LG5.

“For me I enjoy working with other members and they can help you when you are not sure. Members learn to trust each other and take care of one another” LG6.

“Members encourage others and they are so positive when we work on a task. They show respect and love and put other members before them first” LG7.

Working in groups, members learn to change their behaviour, work and interact with group members, make valuable contributions and share the responsibility of completing the tasks. Learner also learned that participating in group work helps them develop confidence in themselves and a positive self-esteem:

“Members that were quieter at the beginning, started to talk a lot and asked many questions and I think their confidence have become much stronger” LG1.

“Learners that were not comfortable at the beginning, started to associate with others in the group and could speak freely. These members had developed self-confidence and a positive self-esteem” LG2.

“Some find it difficult at first to work with others in a group, but later learn to accept and respect one another” LG3.

“One sees yourself in others when they behave unruly or disrespectful to other members” LG4.

“Another member feels that she knows everything [over-confident] and changes later on as she sees how the others behave” LG5.

“Stubborn learners are now the most helpful ones and do not want anyone to be behind with the work. Members with an ignorant attitude has now changed and are positive and just want to work” LG6.

“The quieted learners have now become talkative and want to let their voices be heard. Those who were so negative and discouraged others are hardworking and want to know whether everyone is fine” LG7.

As depicted from the above responses, the researcher argues that social support improves learners’ self-esteem and self-confidence. They are motivated by the group members and when learners feel satisfied with that encouragement, they develop self-determination skills which increases their motivation levels (*cf.* 3.3).

5.5.4 Theme 4: Learner-Teacher Interaction

As behaviour and discipline are issued raised by the teachers, learner groups offered their perceptions on a change in behaviour among their group members offering some reason for the change. This theme revealed the following sub-themes: support given, improved relationships, learners’ responding, teacher’s mobility and praising, intra-group interactions.

Sub-theme 4.1: Support given, improved relationships, learners responding, teacher’s mobility and praising, intra-group interactions

The way in which teachers conduct a task and the use of innovative ideas impacts on the efficacy of teaching may lead to positive effects on student learning (Van Wyk (2012). This means that the teacher should provide and maintain meaningful learning opportunities for every learner. On the other hand, the learner should be active, co-operative, co-responsible and contributing to the teaching and learning situation. Interaction includes interaction between the teacher-and-learner, learner-and-learner, interaction between learners-and-environment, as well as intra-personal interactions.

Learners explained how they were supported in the Life Orientation classroom when they interacted with their fellow group members:

“We must ensure that everyone in the group understands what is expected from us and we cannot leave anybody behind” LG1.

“Group members helped one another when you were struggling or when you were not sure about an answer” LG4.

“... asking for help when things were not clear or you could assist members that needs help” LG2.

“Members become very concern about others and just want to assist” LG6, 1.3
“We help each other and when someone not knowing what to do, we were there to help...” LG7.

The teacher-learner interactions also led to improved relationships and a difference in behaviour among group members:

“Some were afraid to be laughed at. Members later started to know each other and the relationships become more relaxed among members” LG1.

“Learners that were not comfortable at the beginning, started to associate with others in the group and could speak freely” LG2.

“Some finds it difficult at first to work with others in a group, but later learn to accept and respect one another” LG3.

“Someone who are not involved in the discussion but want to speak all the time, she will later change and work with other members of the group” LG5.

Cooperative group work exposes learners to unexpected experiences and as such they to work on relationships to become acceptable and equal members and in addition, develop confidence within themselves so that they can join groups without fear or favour (*cf.* 3.4.1.2).

Despite the fact that learners supported each other and were constructively busy in developing and improving relationships among themselves and the teacher, the teacher has an important role to play with learners during the Life Orientation group investigation lessons:

“I like it when the teacher explains the information, it was clear and you understand immediately what he wants to say” LG5.

“Sometime our marks were not that good, but the teacher encouraged us to do better next time” LG1.

“The teacher was assisting our group regularly, especially when we could not agree on certain aspects of the tasks” LG2.

“We ask the teacher to explain to the group so that everyone can understand better” LG4.

“The teacher has move between the groups and ask if he can help us. Sometimes he looks at the work of some of the learners in the group and comment on their work” LG1.

“The teacher praises us for the good work and he said “good work and keep it up”. I like that. It motivates you and the group as well. You feel good” LG3.

“The teacher was on our case and every time he asked how far are we” LG7.

One can infer from the above expressions that there was regular interaction between the teacher and the learners. Learners responded quite well to the comments, suggestions and encouragement of the teachers or when they were instructed by the

teacher. The commotion in groups was well managed by the learners themselves and with the intervention of the teacher.

Learner-teacher interaction is also encouraged by the mobility of the teacher who regularly moves in and between the groups. The researcher argues that learners enjoyed the presence of the teacher which allowed them to feel free to ask questions and to put their concerns on the table. Another aspect was the fact that learners were praised for their good work and the comment *good work and keep it up* was well accepted by the learners. This type of constructive feedback binds the group members making the stronger as a group and developing group attachment (cf. 3.4.1.2).

Learners also reported on how they experienced interactions with members in the group and general interactions among group members. They responded in the following manner:

“Some members felt they do not want to be over-shadowed by others and they want to be acknowledged in the group” LG4.

“Members were eager to criticise and then you have to defend your opinion or otherwise they will not take your input” LG2.

“You must behave and be disciplined in the group. We need to respect one another” LG5.

“Members could listen to your ideas without making any comments or nodding that you are wrong ... some show respect for others opinions. You learn to tolerate one another in the group ... We have to learn to listen to the group leader” LG1.

In some cases, learners reported a negative side to the interactions:

“Members were not focused and they stared out of the windows. Some was doing homework of other subjects. They totally overpowered our group leader...” LG7.

“Learners make jokes and they distract you from the task” LG3.

The responses indicate that learners had mixed experiences in their groups. Some learners dominated, were quick to criticise or distract members’ attention from the task. On the other hand, learners also had constructive experiences which led to feelings of respect and tolerance in the group and thus improved discipline and good behaviour.

5.5.5 Theme 5: Skills learned by Learners

Learner groups were questioned on their interactions in class with their peers what the lessons learned over the course of group investigation. This theme emerged from the contribution of probe questions revealing the following sub-themes: handling of conflict, effective time management, listening skills, building friendships, and learning of values.

5.5.5.1 Sub-theme 5.1: Handling of conflict, effective time management, listening skills, building friendships, learning of values (respect)

The Curriculum and Assessment Policy Statement states that teaching in the 21st century should be skills-driven rather than theory or content driven. Learners reported on different skills learnt during their interaction in group investigation in the Life Orientation class. Learners were exposed to different situations and to learners with different personalities during the group investigation activities. They are from different backgrounds and each has their own opinions and are working in groups where they have to be themselves. Conflict is part of our lives and learners are confronted with one or other challenge which they have to overcome. Learners indicated that:

“You feel you want to be in the group forever, except for some learners who make you negative at times” LG1.

“Members were eager to criticise and then you have to defend your opinion ...”
LG2.

“Members were fighting without the teacher notice them or they are in a quarrel with each other” LG3.

“Those who like to tease and fight in our group, have become good friends, but only after the teacher has speak to them” LG5.

“I think when you force your ideas, people can get angry and tell you who are you who want to tell them” LG4.

“When we must complete the task, some learners were doing their own things and were very noisy and the teacher could not notice them. They were noisy and rude to the group leader and sometimes ignored her” LG6.

“Group members were positive, except for those who wanted to take over” LG7.

Learners with different abilities have an effect on how learners are able to manage their time spending on a given task. Learners in adhering to the timeframes set for the completion of the group work activities, would develop time management skills. The following were the learners' responses when asked about their performance and interactions with their fellow classmates:

“The group leader was strict and demanded that everyone must do something so that we complete our task in time. When we manage it, there was big excitement in the group because other groups find it difficult to finish their work in time” LG4.

“They deliberately want to delay us from finishing the task. The group managed to complete the activities in time and did not ask for extra time from the teacher” LG1.

“We could respond in time when the teacher needs an answer or wanted to know who are finished” LG2.

“When some of our friends have difficulty to finish, we helped them so that the group can be finished and not leaving anyone else is behind. The teacher applauds us for making sure everybody is finished and we do not need extra time” LG3.

“I trust my group members with our task and the responsibility each of us to submit on time” LG7.

“We as a group must work fast so that we can do our assignment in time and maybe can help others who are struggle. We must not just finish the task but we must work so that we obtain good marks” LG5.

What is evident from the above excerpts, is that learners realised that it is not only about finishing the task on time, but it also has to do with the quality of task submitted. The quality of the task determines in many instances the efforts put into the task. However, groups learn to manage their time effectively and make sure they do not leave any of group members behind. Teacher praise also motivated learners to ensure good quality of work and complete the task on time.

Group members have to learn the skill of listening to each other during group work activities. Listening and speaking are important skills when learners are participating in group work and sometimes it is more difficult to listen with intent than to speak. When learners are not listening to what other group members have to say, it might lead into confrontations and misunderstanding within such groups. Learners were asked what they learnt during their group interactions:

“The importance is to allow everybody to have a say and that everybody feels that they belong to the group. Members must feel accommodated and secure in the groups and that everyone is equally important as each other” LG3.

"We learnt to work together and listen to what the group members have to say"
LG2.

"When we make our contributions, we listened to each other and try to make notes when you heard any mistakes" LG4.

"We listen to each other and learn to show respect when a member speaks" LG3.

"Members could listen to your ideas without making any comments or nodding that you are wrong" LG1.

"I will answer and I will write for the group. I will listen to the questions. I will explain it when someone does not understand. Give advice and ideas" LG5.

Another important skill that learners demonstrated during their group work is building of friendships:

"Then as the time goes, we will be able to know each other better and the relationship will be much stronger" LG5.

"To me was to assist anybody in the group who need some help and one later feel so good because you want to do more" LG1.

"...because we have a good understanding in the group. We learn to trust each other and I care a lot for everyone in the class" LG2.

"... Learners had developed a social relationship with the rest of the group and could assist at any time" LG2.

"I will encourage my friends and motivate them to do their best. It is to give your best and let everyone feel comfortable and that they can trust each other" LG7.

The above indicates how learners first learn to know each other which developed a feeling of trust and understanding among them. The researcher maintained that there was a gradual improvement on how learners learn to accommodate one another and that it takes courage to trust and learners that you are not used to work with (cf. 3.6.1).

Some of the learners pointed out that they have learnt important values during the group investigation activities. The researcher attests that it is important for learners to have a strong value system. Our Constitutional values are also enshrined in our Constitution of the Republic of South Africa as well as in Values in Action (DBE: 2011b: 10). Some of the groups developed values through their interaction during the group activities and were gathered and reflected in the next quotations:

“Members must feel accommodated and secure in the groups and that everyone is equally important as each other” LG3.

“The different roles that will be allocated to member must be taken seriously and each member must take fully responsibility for their role given” LG2.

“Some members can work fast while others are a bit slow and here you have to be tolerant with members. You learn to take responsibility of your task, the group and for the success of the group task” LG3.

“You learn to tolerate one another in the group even if you did not agree with that group member” LG1.

“It was good to show respect and not be noisy when one of our members was busy to report” LG4.

“... we want everybody to be respectful, not to the teacher alone, but to the group members too” LG5.

“Working together and have respect is the main thing in a group” LG6.

The above values shared by different learners are genuine and are presented according to the learners' individual experiences during group work. It is therefore important that we take time to appreciate the Constitution and the values that it upholds. The researcher contends that it is important that the voices of the learners be heard and respected by the school community and that all learners must have the same opportunity to realise their full potential.

5.5.6 Theme 6: Challenges and Confrontations

Learners identified challenges that they faced in group investigations. They responded to questions about behaviour, participation and interaction during group work. This theme revealed the following sub-themes: disruptive behaviour, lack of commitment, member's side-lining, and depending on assistance. The researcher asserts that group work is not always a pleasant experience because it has its own challenges. Learners with different personalities and behaviours in a group have to learn to respect and tolerate their fellow members in the group and not all are successful in doing that at first.

5.5.6.1 Sub-theme 6.1: Disruptive behaviour, lack of commitment, member's side-lining, depending on assistance

This sub-theme indicates that groups of learners with different abilities are grouped together and have to cooperate in the completion of tasks. Some learners did not feel at ease in some of the groups while others were dominated and found the behaviour of the members challenging:

"You feel you want to be in the group forever, except for some learners who make you negative at times [things that upsets you]" LG1.

"Some criticise just to make you feel negative and that your work is wrong, without listening to what you want to say" LG2.

"I sometimes complaint to the teacher about the behaviour of some learners and then it will be restful for a short time" LG3.

“It was hard to get everyone to work as they have their small talks in the group. They share their own funny stories and laugh so that other groups looked at us”
LG4.

“We talk to those who want to fight, but they do not care and is repeating the same thing” LG5.

There were learners who want to overpower us and not give us an opportunity to speak” LG6.

“Our group was hardworking and all our efforts were our best. Group members were positive, except for those who wanted to take over” LG7.

The above excerpts indicated that learners experienced disruptive behaviour among each other which hampers participation, commitment and contribution towards their goal of success. The researcher asserted that group members who cooperate optimally and learners who are well prepared for such activities, may perform better and give their full support to the groups (*cf.* 3.9).

Lack of commitment was evident in the groups participating in group investigations during this period:

Two or three learners in our group was not interested in the task at hand and they rather completed work from other subjects without the teachers noticing. Others were playing games on their cell phones and not concentrating on the task that we must finish” LG1.

“Learners make jokes and they distract you from the task” LG3.

“It was hard to get everyone to work as they have their small talks in the group. They share their own funny stories and laugh so that other groups looked at us”
LG4.

“We talk to those who want to fight, but they do not care and is repeating the same thing” LG5.

“It was difficult to work in this group. Learners were negative and they did not have any interest in the task that we have to complete” LG7.

Learners indicated that they sometimes felt that were they being ignored by members in a group and had no sense of belong to the group. The researcher agrees that these kinds of feelings are experienced by learners who feel uncomfortable and having a low self-esteem. Sometimes learners can withdraw themselves from the group activities and try to direct their attention to other things which make them feel secure and safe. Learners responded in the following manner when they were asked about their interaction with classmates, contribution to and expectations from the group:

“Learners sometimes ignore you when they see you do not participate. This was not that, but it was because you are afraid of answering wrong and learners will laugh at you” LG1.

“To help those members who are uncertain about the topic at hand and so that they do not feel they are outcasts and ignored, and to ensure that everyone contribute meaningfully to the group” LG2.

“Some leaners indicated that they have become bored in the group because they were not given an opportunity speak” LG3.

“Those who wanted to dominate others were reprimanded by the teachers as well as the group leader” LG4.

This sub-theme also acknowledges that learners can become dependent on assistance from the teacher or the members of the group in order to make valuable inputs. Learners explained that it was not easy to give responses knowing that some learners in the group already knew the correct answer and were just waiting for others

to respond. This leads to learners' hesitancy and uncertainty whether responses will be accepted by the group:

“Some learners got fears on how members in the group will react because they know one another” LG3.

“You are not open [keen] to ask for assistance from your peers or the teacher when things are not clear to you” LG2.

“I was discouraged because at times it feels that the group ignore you and you feel isolated and not belonging to the group” LG6.

5.6 ANALYSIS OF LEARNER CLASSROOM OBSERVATION

Peer observers were selected in the selected schools where the Life Orientation teachers applied group investigation as a teaching approach. The researcher selected one peer observer per selected school which in total were seven (n=7). The non-participant peer observers had to fill up the observation schedule during teacher presentations and learner interaction in groups during Life Orientation periods.

5.6.1 Demographics of peer observers

The demographic characteristics of the peer observers who observed the Life Orientation lessons are displayed in table 5.4 below. The following peers were selected on the basis of their Life Orientation teaching experience and availability. An arrangement was made with the senior management team (SMT) for the peer observers to observe the Life Orientation lessons according to their timetable.

Table 5.4: Demographics of Peer Teacher Observers

School	Peer Observer (Pseudonyms)	Years of teaching experience	Phases taught	Subjects taught
School A	Mrs Thorps	24	Senior and FET Phases	English FAL; Geography; Life Orientation
School B	Mr Khazi	5	Senior and FET Phases	Physical Science; Life Science; Life Orientation
School C	Ms Julz	22	Senior and FET Phases	Life Orientation;

School	Peer Observer (Pseudonyms)	Years of teaching experience	Phases taught	Subjects taught
				Mathematics
School D	Ms Carn	2	Senior and FET Phases	English FAL; Social Sciences; Life Orientation
School E	Mr Phuke	18	Senior and FET Phases	Afrikaans HL; Life Orientation
School F	Ms Petra	8	Senior and FET Phases	Afrikaans HL; Life Orientation
School G	Mr Monwabi	22	Senior and FET Phases	Life Science; Life Orientation

Figure 5.4 below shows the sequence of constant comparison data analysis that the researcher generated when analysing the data collected during the learner classroom observation (*cf.* Appendix N) that was completed by the peer teachers at the respective schools of the teacher interviewees.

Research Questions

1. What does the scholarly literature on different teaching and learning approaches to Life Orientation in South African context entail?
2. Which pedagogical Life Orientation content knowledge and skills should secondary teachers have in planning group investigation as a cooperative teaching and learning approach?
3. What are the benefits and challenges of group investigation as a cooperative teaching and learning approach to Life Orientation?
4. Which strategies/framework could be used to improve teacher's proficiency regarding group investigation as a cooperative teaching and learning approach to Life Orientation?

Learner Classroom Observation Schedule:

1. Behaviour

- 1.1 How do learners behave within their groups?
- 1.2 Describe any form of positive or negative behavior that you observed?
- 1.3 How was the motivation level of the group when doing this group investigation task throughout the project duration?
- 1.4 How do learners respond to authority?

2. Social skills.

- 2.1 Explain the cooperation level among groups?
- 2.2 Was there any interaction among group members? If so, list reasons for these interactions?
- 2.3 Elaborate on the following:
 - 2.3.1 Communication

THEMES	CATEGORIES OF SUB-THEMES (PATTERNS)
THEME 1: Learner behaviour in groups	Sub-theme 1.1: Group cohesiveness, free and eager engagement, disruptive behaviour
THEME 2: Learner enthusiasm	Sub-theme 2.1: Presenting with passion, high motivation
THEME 3: Time management	Sub-theme 3.1: Adherence to timeframes, learners' attention distraction
THEME 4: Skills learned	Sub-theme 4.1: Respect for members, sharing of ideas, problem-solving
THEME 5: Individual accountability	Sub-theme 5.1: Responsibilities, achievement of common goals
THEME 6: Positive interdependence	Sub-theme 6.1: Contribution in groups, active learner involvement

Figure 5.4: Constant comparison analysis of learner classroom observations

(Adapted from Glaser & Strauss, 1967)

The focus of the learner classroom observation was to observe Group Investigation lessons implemented during Life Orientation lessons in the seven schools. Six themes emerged from the analysis and represent the interaction observed during the lessons.

5.6.2 Theme 1: Learner Behaviour in Groups

Peer observers focused on the behaviour of the learners within their groups. This theme, learner behaviour in groups, revealed sub-themes of group cohesiveness, free and eager engagement, and disruptive behaviour. Learners demonstrated different attitudes within the different groups in which they were participating.

Sub-theme 1.1: Group cohesiveness, free and eager engagement, disruptive behaviour

Group cohesiveness is one of the features that appeared as one of the sub-themes during peer observation as learners interact during group activities. Learners learn to have a good understanding and trust amongst each other which strengthens the interconnection between group members. Peer observers remarked that:

“Learners are actively involved and connect very well in the groups” Ms Petra.

“Learners are much focused but they displayed to be relaxed and enjoyable” Ms Carn.

“They behave like old friends and do not want to leave the others behind. Members are close to each other and appears to participate well” Ms Julz.

“Most of the learners tolerate each other and have respect and understanding of each other” Mr Khazi.

The above responses indicate that learners become close and develop a mutual feeling of trust and respect that binds the members of such a group. The researcher

attest that it is important that the connection amongst group members can only be strengthened when members show respect, understanding and tolerance (*cf.* 3.4.1.2). Peer observers also indicated that learners participate in a free and eager manner within their groups. Even if they are not only listening to the instructions of the group leader or the teacher, they are willingly to assist and cooperate on their own, as shown below:

“Sharing facts and participating openly in discussions. They enjoy each other and speaks without waiting for the group leader to guide them” Mr Phuke.

“Learners do not want to take break during intervals and to complete their exercises on their own and in their own time... Learners are discussing in the groups and just want to present their work without any fears. Whether it is wrong or right, they appear positive.” Ms Carn.

“They listen to the teacher when the teacher talks and could freely ask questions” Ms Petra.

“There is idea-sharing which can lead to new ideas coming out. This is positive as it will assist the group members. They behave like old friends who knows each other well ...” Ms Julz.

The extracts indicate that learners displayed an open and free spirit of learning in the Life Orientation classroom. Learners' commitment towards their task at hand was encouraging to members in the group and other group members as well. When learners do not have any fears to express themselves, the discussions become constructive and encouraging to others in the group (*cf.* 3.4.1.4).

Peer observers reported on how learners misbehave in the classroom which caused an undesirable classroom atmosphere, which hampered teaching and learning. This form of negative behaviour by learners and raise questions about which alternative measures which can be applied in such circumstances:

“Individual learners are periodically disruptive in-between lessons” Mr Khazi.

“Some are very disruptive and likes to bully each other. They behave badly so that they can fit in ... Some are naughty and rude towards other group members. They do not want to listen. They are making noise and not doing the work sometimes. Back chatting. When a teacher is assisting a learner, then another learner back chats.” Mr Phuke.

“Groups became disruptive mostly when there is no clear understanding of individual roles and learner took some time to settle down...” Ms Julz.

“Groups became disruptive and learners took some time to settle down.” Mr Monwabi.

It can therefore be ascertained that from the above responses that disruptive behaviour can disrupt learners in their tasks and can break the cooperative feeling that most members experience. Some members might not enjoy working on the activities, because of the disturbance.

However, peer observers also indicated that not all groups disrupted classes and therefore, other learners were able to effectively become involved in the teaching and learning process:

“There was no disruptive behaviour in these group in general” Ms Petra: 1.2

“They interact and enjoy. Some groups seem to be very talkative, while others are focused on the task” Mr Monwabi.

“Some groups are behaving well while only one to two groups are noisy. Others are consultative and help their friends and seems that they do not want to be disturbed” Ms Carn.

5.6.3 Theme 2: Learner Enthusiasm

Findings in this study revealed that learners realised the importance of expressing one's self in a respectable manner. Learners who experience high self-confidence in a healthy working relationship were able to learn from one another offering and giving the necessary support to the group members. Furthermore, peer observers reported high level of motivation of the groups when involved in group investigation tasks in Life Orientation. Such learners enjoy being involved, actively participate and are able to use each other's strengths in order to obtain positive group goals. Three sub-themes emerged from this theme, namely, presenting with passion, confidence and excitement, and highly motivated learners.

Sub-theme 2.1: Presenting with passion, confidence and excitement, highly motivated learners

Peer observers after observing learner presentations of their respective tasks, commented on their competence in conveying information and on their presentation skills:

"Most learners enjoyed presenting and being part of the project was exciting for them" Mr Khazi.

"Learners are very focused on the tasks and they speak about quality work must be presented" Ms Petra.

"Group members work well together and are showing respect to other groups. Listening to others while reporting" Ms Carn.

"When they presenting, they show confidence as individuals and are very excited and cheerful. Some enjoy the show and want to be in the limelight" Ms Julz.

Learners who participate in group work also experience the social support of others. The fact that they are working with learners from other backgrounds, personalities and experience, support from them improves their self-confidence and self-awareness. Learners realise that it is not only about themselves, but about the other members in

the group in order to achieve their common goal (cf. 3.4.1.3). Peer observers reported on learners' experience of confidence and excitement:

“Every learner participated in their groups effectively. They are motivated and want to show their friends that they can stand on their own feet. Learners with a good self-esteem can be seen by three of these group and because of their physical appearance they are confident and jokey” Mr Khazi.

“Learners enjoyed the support of the group members and you could see that they are more confident and outspoken ... These happy faces are open for communication and learning in their groups” Ms Julz.

“Learners are very focused on the tasks and they speak about quality work must be presented” Ms Petra.

“They encourage one another to work in order to complete the task on time” Mr Monwabi.

“Groups are excited and positive and cooperative in the groups” Ms Carn.

“They feel good to share their resources with those who do not have and the openness is observable on the faces” Ms Carn.

The researcher deduced from the above extracts that a confident and happy learner will become determined and eager to work to the best of their abilities. Learners will put in more effort to be successful and are motivated by their achievements. Motivation was further aspect to observe and peer observers reported that

Most learners enjoyed presenting and being part of the project was exciting for them” Mr Khazi.

“Initially the motivation was high but as everyone wanted their ideas to be incorporated into the project” Ms Julz.

“Highly motivated and eager to learn. They are co-operative towards their peers and respect each other. 68% - 78% motivated” Mr Phuke.

“Learners are very focussed on the tasks and they speak about quality work must be presented” Ms Petra.

“It is very high [show a high level of cooperation and participation in their own group and among other groups] and one could see they are interested in views of others” Mr Monwabi.

The above extract indicated that learners have a high motivation level which has led to better performance and cooperation in the groups. Learners do not merely work on tasks to finish and submit as required by the teacher, but learners focus on quality tasks which will lead to better achievement. It seems that the development of respect and understanding as well as cooperation and participation in the groups, has enhanced their knowledge of the learned material. In contrast, among some groups, learners were not enthusiastic about working in groups and this kind of behaviour influenced the participation and cooperation in the groups (cf. 3.4.1.5). One peer observer reported this negative aspect:

“No motivation at all among the groups and they show no interest in their work and group performance. They talk about a reward and only then they will complete the task” Mrs Thorps.

The above quotation explained how some learners display a lack of interest when they are expected to work together. Learners only work when they receive a reward after completing their task. However, the learners should realise that the real reward incorporates their learning, development of vital skills and improved performance.

5.6.4 Theme 3: Time Management

Learners have different skills and abilities and when they work in groups, they have to apply these skills. Some learners will be able to work fast while others are slow in

completing their work. However, in order to achieve the group goals successfully, learners must learn to manage their time effectively and accommodate everybody in the group. Peer observers took note on how groups respond to timeframes set for a task. The sub-themes that gave rise to this theme are: adherence to timeframes and learners' attention distractions.

Sub-theme 3.1: Adherence to timeframes, learners' attention and distractions

This sub-theme reflects the importance of time management during group work. Learners had to acquire certain basic skills to work effectively within the groups. With adherence to timeframes, peer observers' responses were as follows:

"Learners were not able to complete it at given time. They need a few periods more. Learners in groups cannot finish in time, they argue that the time was too short and they need more time" Mrs Thorps.

"Most of the learners adhered to the set time apart from the few who delayed. Timeframes to the groups was very important. Groups have timekeepers which they appointed for themselves" Mr Khazi.

"Groups wanted to finish their tasks on time but could not and they rather getting angry to those that delay the group" Ms Julz.

"Groups complete their tasks in time because they do not want to be mentioned by the teacher that they are the only that is still busy" Ms Carn.

"They work hard, in order to reach a deadline of a task" Mr Phaku.

"Some did not do it in the prescribed time frame, it had to be extended" Ms Petra.

"To be honest there were some who did not honour the due dates and timeframes" Mr Monwabi.

The above observations clearly indicate that in general, learners find it difficult to adhere to due date and timeframes. Many internal and external factors could have impacted negatively on the performance of the group members. Learners with different abilities are grouped together which often means that learners who work faster become frustrated with slower learners. The peer observers noted the frustration of the group members, *“What was holding most of the groups back, was the slower learners who could not finish their duties in time”* and *“Sometime members become angry with those who are a bit slower in providing the information”*. Teachers should acknowledge that not all learners perform at the same level and within time constraints and therefore, they must learn to be tolerant towards those learners offering them time accommodation (cf. 3.7.2).

The second sub-theme related to time management has emerged as learners' attention distractors:

“Members keep themselves busy with other work, but not the task. In some groups learners walk to other groups where their friend are to have small talks with them” Ms Julz.

“Some learners could not focus too long on the task then they become a nuisance to the other members of the group. They tease learners in other groups and distract their attention from the work they do” Ms Petra.

“Many learners in the group rather watching learners playing outside the class. It looks as if they were so interested in what was happening outside” Mr Monwabi.

Learners attention was easily distracted by factors in the classroom as well as outside the classroom and it was noted that learners moved from their groups and walked to other groups where their friends were to talk to them. The researcher argues that these learners choose not to work with others, but have now isolated themselves from the rest. If learners could choose their group members, it might be that more effort and enthusiasm as well as dedication to the work would be observed (cf. 3.9).

Observers noted that learners could not concentrate for too long on a task then became a nuisance to the group. Learners do not have the same concentration span and it might be that some learners are quickly and easily distracted in that they are unable to focus on a particular task for an extended period. Therefore, it depends on the teacher to develop tasks in such a way that it caters for learners with different abilities as well as attention span.

5.6.5 Theme 4: Skills Learned

The Curriculum and Assessment Policy Statement for Life Orientation suggests that learners need to develop a range of skills (*cf.* DBE, 2011a:5). Taking this into account, peer observers focused on the following skills: communication, listening, problem-solving, resolving conflict and working independently. The researcher has focus only on three of these concepts, communication, problem-solving and conflict resolution which emerged as sub-themes.

Sub-theme 4.1: Communication, problem-solving, conflict resolution

Peer observers noted that learners communicate well with each other and within the different groups. Through communication in a respectful manner, they enhanced the feeling of trust among members which formed the glue in building friendships and relationships. Peer observers stated their observations as follow:

“Learners were able to communicate with each other based on the information and knowledge they’ve acquired while doing the research” Mr Khazi.

Group communication work best. Communication – keeping in touch with friends. Learners discuss some of the questions and you could see the facial expressions: some are surprised and others nodding their heads” Mr Phaku.

Communication was effective amongst the learners and also towards educator. They respect each other” Ms Petra.

In view of the fact that the extracts above are constructive, it seems that Life Orientation teachers have created an environment conducive to learning and where the context and atmosphere provides a safe space where learners freely interact and engage in the various topics of Life Orientation.

The second skill that was observed by the peer observers was problem-solving and observers responded as follows:

“Knowing the steps of problem solving was not difficult for the learners to solve the given problems” Mr Khazi.

“Solving problems is enhanced and strengthened as more ideas come from different learners towards finding a solution. Learners argue for some time on problems, but reach consensus on how to clarify them” Ms Julz.

“Members could argue rationally and they have never stop looking for solution to solve problems. When they are uncertain, they called the teacher to explain to the group of only to one or two learners in the group” Ms Carn.

“Learners are using different techniques to solving problems. They are comparing and show their techniques to the group members, explain it and you could see the satisfaction on their faces [relief]” Ms Petra.

However, in some cases:

“Just few learners were able to solve problems completely on their own” Mrs Thorps.

Another skill the peer observers identified was conflict resolution:

“They have learnt to take the blame when they did something wrong” Mrs Thorps.

“Conflict resolution, takes long to solve as conflicting ideas come up leading to conflicts within the group. By listening to one another, being assertive and communicating their feelings, also mediation by the facilitator” Ms Julz.

“Conflict was only observed in two groups from the seven. Others could easily resolve their conflict while in some instances the teacher has to come and intervene” Ms Carn.

“Not at all. They are unable to resolve conflict. Some are using a mediator ... there has to be a disciplinary committee. One of the group members acting as mediator during a conflict” Mr Phaku.

“Learners experience difficulty in resolving conflict issues. They argue and debate tirelessly but it seems that they will not reach an agreement. The group leader tries to resolve the conflict, but it seems that the issue is difficult. Afterwards they are calling the teacher” Ms Petra.

“They only resolve conflict with the guidance of the teacher” Mr Monwabi.

Evidence from the above excerpts is that conflict is part of daily life, whether people are at the school, home, church or workplace. Conflict resolution is could help resolve issues or problems between two or more people and is a skill that could be taught in the Life Orientation classroom. The researcher believes that it would not be good to agree that every input or decision be been taken. It is suggested that group members are offered the opportunity to acknowledge and recognise their mistakes which might result in an unfavourable situation. Therefore, it is important that group members are taught the steps of conflict management to resolve misunderstanding and conflict (cf. 3.9).

5.6.6 Theme 5: Individual Accountability

Individual accountability emerged as a theme with members of the group displaying responsibility for the duties they performed. Peer observers noted how learners were aware of the role/s they are required to play in group investigation. Learners’ attitude

towards their role they play in the groups was positive and therefore they illustrated a concerted effort with regards to the performance of the group. Learner responsibility, and achievement of goals emerged as sub-themes and are indicated in the section below.

Sub-theme 5.1: Learner responsibilities, achievement of common goals

The intention of group investigation was explained by the teachers and each role that learners would play was introduced and clear instructions given for each role. Learners in their newly formed groups were made aware of the responsibility of each of the roles. Learner groups illustrated that their purpose of being part of learner groups was to perform their responsibilities diligently. Peer observers expressed the following:

“Learners were able to do their duties as per decision by the group. Every learner gets a role to play in the group” Mr Khazi.

“Some learners perform their tasks with passion and seems they enjoy it” Ms Julz.

“When they do not want to work together, the group leader always takes the initiative to lead the discussions and tell them what their responsibility was” Ms Carn.

“They are all assigned in groups and given roles” Mr Phaku.

“Everyone in the group is busy with his/her part of the task and prepare themselves for the time to report to the group” Ms Petra.

“Each learner had a responsibility and had to give their ideas” Ms Petra.

“Members in the groups ask if they can help their team mate, but the teacher does not allow that. The teacher responded let the members finish first and then we will see does that member still need assistance” Mr Monwabi.

The above responses indicate that learners clearly understand their roles they have to play in the groups. These roles ensure that the responsibility for the task is shared and it ensures learners' accountability for participating in the group. Therefore, it is important that teachers explain the essence of each and everyone's responsibility in the group. The researcher contends that it is every individual's contribution to the group that determines the effectiveness and success of the group and in addition gives learners the opportunity to develop a variety of skills (cf. 3.4.1.3).

Despite the above responses indicating that group members generally realised the importance of their responsibilities, one group totally acted against the principle of accountability. Peer observer Mrs Thorps indicated that learners were not interested in taking on any roles or responsibilities assigned to them. Mrs Thorps further showed that the learners opposed the authority of the teacher, disobeyed the teacher and were not interested in the members of the group.

Notwithstanding the fact that every member's contribution determines the success of the group, the concerted effort by the group is equally important as the individual's responsibility. Therefore, as a group, all members should work towards the achievement of a common goal with everybody being expected to remain focused on the task entrusted to them. The group's effort is now more important as the individual member's personal goal. When the peer observers were asked how are groups should accountability for the work and the role of each member of the group, their responses were illustrated as follow: (cf. 3.4.1.5).

“Soon they have realised that they are all accountable for the group's success and therefore, have to make sure that everyone in the group grasps the content, understands the task and to deliver their best. They started to accept other's opinions as at the end and after corrections, it will form part of the groups achievement” Ms Julz.

“Every member must report to the group and that is how the group determines the quality of work of each member... Groups agree that individual contributions determine the group success” Ms Carn.

“They are accountable by reporting back about the deliberations. They praise each other as those achieved get certificate and rewards. They are given good marks ... There was excitement in the group when they finish in time and the teacher praise them. Learners show that they trust their group members and do not want to disappoint each other” Mr Phaku.

“Depends on their performance; if done well they become excited” Mr Monwabi.

“They responded positively. After realising that they have to trust each other, relationships have grown better. They have now started to support each other and try to improve on the participation of the group. These better relationships have led to a better group achievement and that everyone could feel part if they receive a reward. They have started enjoying the reward system” Ms Petra.

5.6.7 Theme 6: Positive Interdependence

Members do everything in their best to ensure that their group is successful. The main focus is that learners in their respective group’s works towards a set group goals which includes completing a task to the best of their abilities. The individual goal can only be achieved when the group goals is achieved. Peers observers took note of the behaviour and participation of learners in a group where positive interdependence emerged as a theme. From this theme, the following sub-themes has emerged, namely, contribution in groups, leaner involvement, and uncooperative behaviour.

Sub-theme 6.1: Contribution in groups, learner involvement, uncooperative behaviour

This sub-theme discusses learners’ participation and contribution regarding members work with each other as well as within the group investigation groups. Peer observers stated their observations as follows:

“Yes, because different arguments came up amongst learners coming from different backgrounds. Learners discuss the tasks and they are laughing” Mr Khazi.

“Some were asking questions and others were assisted. Groups really find discussions and presentations interesting because merely everyone was discussing in their groups” Ms Carn.

“They work together and share with their group members. When a member needs a rules or glue, they borrow from the other members in the group. Resources are shared amongst the members” Mr Phaku.

“They share it very well, there is no selfishness. By helping each other and making resources available within their respective groups” Mr Monwabi.

“Learners disagree with each other on certain topics and sometimes they have to convince each other otherwise. They do not just agree without having an understanding, but learners indicate that they have an idea. Mr Khazi.

The above extracts confirm learners' contributions in their respective groups. Learners were given fair opportunities to contribute their ideas and opinions to the group. It is also evident that they could make inputs, take decisions and above all, they do not have to agree when they have a different point of view as opposed to the rest of the group (cf. 4.4.1.1).

However, in some cases group investigation did not go according to plan:

“In some of the groups only a few learners were interested in the task, while others' attention was elsewhere” Mrs Thorps.

Learners were constantly and actively involved in participating in group work activities. They engaged in constructive arguments while some discussions in groups were very lengthy. Learners enjoyed the situation where their viewpoints were valued and others

paid attention to what group members had to say. The following observations were made:

“Some were asking questions and others were assisted. Groups really find discussions and presentations interesting because merely everyone was discussing in their groups. The group leader was in the forefront and you could see that the leader wants to involved all the members of the group” Ms Carn.

“They are serious and seems interested in their work. Do not want to be disturbed. They assist each other and members show signs of happiness” Mr Monwabi.

“Learners are actively involved and connect very well in the groups. They participate and do not want learners to disturb them ... Learners feel free to speak and are very enthusiastic and positive ... But what is good is that learners can work and be busy for some time” Ms Petra.

“There is idea-sharing which can lead to new ideas coming out. The discussion seems constructive and learners are comfortable in the group. This is positive as it will assist the group members” Ms Julz.

“Just few learners were able to solve problems completely on their own” Mrs Thorps.

Conversations and discussions in groups did not always go smoothly as demonstrated in the above extracts. Learners also experienced unpleasant moments and feelings which they needed to manage so as not mean to cause problems. Learners often feel the need to protect themselves but within group investigation that also need to show that their presence counts. Peer observers noticed uncooperative behaviours in the different learner groups:

“Individual learners are periodically disruptive in and between lessons” Mr Khazi.

“Some are naughty and rude towards other group members. They do not want to listen. They are making noise and not doing the work and sometimes they back chatting. When a teacher is assisting a learner, then another learner back chats” Mr Phaku.

“Some members are continuously looking through the windows and their attention are distracted by things happening outside the classroom. Seems not interesting of what the groups are doing” Ms Carn.

“Members keep themselves busy with other work, but not the task. In some groups, learners walk to other groups where their friend are to have small talks with them. They show an attitude of ignorance and don't care. This behaviour was disrespectful to other group members and to the teacher” Ms Julz.

“They tease learners in other groups and distract their attention from the work they do. Learners got frustrated while other ask the teacher to speak to those who disturbed them” Ms Petra.

In the view of the fact that the excerpts indicate that behaviour and group participation can be problematic, teachers need to create an environment conducive to teaching and learning which optimises the ability of learners to learn freely and offers them a safe space in which to interact in groups and develop the social-emotional skills and vital skills necessary for success at school (cf. 3.7.4).

5.7 ANALYSIS OF TEACHERS' LIFE ORIENTATION DOCUMENTS

Principals of seven schools were asked to provide teachers' Life Orientation documents for analysis. The researcher sought to evaluate the processes followed by teachers to ensure curriculum management which includes evidence of engagement in the following aspects: master files, planning of lessons and teacher's notes, assessment records, Departmental Life Orientation circulars, learners' portfolios and learners' notebooks. The themes that emerged from the document analysis were

enhancing policy implementation, planning, assessment, constructive feedback, enhancing quality assurance, and enhance and sustain support:

Table 5.5: Classification of themes and sub-themes

THEMES	SUB-THEMES
Theme 1: Enhancing policy implementation	Sub-theme 1.1: Interpretation and understanding of policies and, lack in monitoring and support.
Theme 2: Planning	Sub-theme 2.1: Lesson preparation, teaching strategies, and teachers content knowledge, appropriateness of learner support material (LSM)
Theme 3: Evidence of Assessment	Sub-theme 3.1: Lack in quality of formal assessment tasks, lesser focus on informal assessment tasks
Theme 4: Developmental feedback	Sub-theme 4.1: Inconsistency of feedback, lack of quality feedback
Theme 5: Enhance Quality assurance	Sub-theme 5.1: Standard of internal moderation, quality of marking
Theme 6: Enhance and sustain support	Sub-theme 6.1: Support to learners and teachers

5.7.1 Theme 1: Enhancing Policy Implementation

The first theme to emerge from document analysis was enhancing policy implementation, which examined strategies/framework to improve teacher proficiency in implementing group investigation as a cooperative teaching and learning approach in Life Orientation. The following sub-themes emerged: interpretation and understanding of policies, and monitoring and support.

Sub-theme 1.1: Interpretation and understanding of policies, and monitoring and support

Document analysis has shown that teachers in all seven schools adhered to the correct implementation of the relevant school and subject policies. Most of the policies were filed in the Teacher or Master file, and included moderation, assessment, examination, curriculum coverage instruments and subject improvement plan. Although other policies like extra mural or extra-curricular policies which include sport or cultural policies were available, due to the focus of the research, the researcher has

limited the documents to the policies related to teaching and learning. The Curriculum and Assessment Policy Statement (CAPS), which is the formal subject policy was found in all the master files. The programme of assessment (PoA), which is part of the subject policy, was contextualised by all the participating schools. Physical education tasks and activities were modified to the context of the school and has enhanced mass participation of learners (*cf.* 3.4.2).

Evidence of monitoring and support were found in monitoring reports whereby teaching and learning was monitored according to a planned schedule that was distributed and discussed with the teachers in advance. Records of minutes of meetings and attendance registers were substantial evidence that corroborates this theme. School management teams (SMT) are supposed to monitor teaching and learning each quarter in order to be ascertain whether there is appropriate curriculum coverage. However, monitoring and support reports for Quarters 1 and 3 respectively, could not be found in two of the seven schools. The fact that this is policy and schools must comply.

5.7.2 Theme 2: Planning

Theme 2 emerging from document analysis involved planning taking into account strategies/framework to improve teacher's proficiency regarding group investigation as a cooperative teaching and learning approach in Life Orientation. The following sub-themes emerged: lesson preparation, teaching strategies and teachers' content knowledge.

5.7.2.1 Sub-theme 2.1: Lesson preparation, teaching strategies and, teachers' content knowledge, appropriateness of learning support material (LSM).

There was evidence of lesson preparation found in all schools. Teachers did their lesson preparation or lesson planning in hard cover exercise books, or completed a template, or filled out certain areas on the Annual Teaching Plan (ATP). However, sub-headings in the lesson preparation were not fully explained whereby teachers just indicated the topic and sub-topic without any clarification. What was also lacking in the lesson preparation, was evidence of the different steps when group investigation was

implemented. The researcher postulates that this was an indication that Life Orientation teachers need extensive training with regards to the implementation of group investigation as a teaching approach.

The lesson preparation revealed that teachers used different teaching and learning approaches in the Life Orientation classroom. This evidence corroborates with the evidence from the teachers' interviews (*cf.* 5.4.1) where they reported using different teaching approaches. Evidence has shown that teachers used, amongst others, the traditional teaching approach, cooperative learning approach and the direct instruction approach. It has to be understood that teachers are from different learning environments and different school settings and therefore the one-shoe-fit-all-approach is not be applicable in diverse school settings.

Teachers have different levels of content knowledge and this might be because of the levels of academic qualifications, training, teaching experience or in-depth planning. Teachers are guided by the Annual Teaching Plan (ATP) when they have to prepare their lessons. Some teachers have done in-depth lesson preparation which demonstrate expertise of the subject. Content is in most cases is integrated with other subjects and this requires a sound understanding of the content from the subject teacher. The content requires learners to demonstrate high knowledge and skills, values and attitudes. Activities were divided in core knowledge, application of knowledge as well as skills to be demonstrated by the learners. This kind of planning indicated that the teachers are competent and skilled and have the ability to interact meaningfully with learners while teaching the subject of Life Orientation.

Evidence from the lesson preparation files was that learner support material (LSM) was relevant to the selected lesson plans, appropriate to the age and grade level of the learners for the attainment of the learning outcomes. It was observed that the LSM was well integrated with the subject matter which promotes learners' knowledge, skills and attitudes. Although some lesson planning was very textbook-driven, other lesson plans included a variety of sources, such as worksheets, prepared informal tests, PowerPoint presentations, group work settings, videos and expanded learner notes. The teacher and learner notes were compiled from the approved learner textbooks and other additional resources. Planning in three schools was superficial and without

necessary detail. The researcher postulates that teachers were able to utilise LSM effectively, but needed to be up-skilled on their professional content knowledge and to become experts in the subject of Life Orientation (*cf.* 3.4.2).

5.7.3 Theme 3: Evidence of Assessment

The assessment record documents were thoroughly analysed resulting in the above theme emerging with the following sub-themes: lack in quality of assessment tasks, less focus on informal assessment tasks.

Sub-theme 3.1: Lack in quality of formal assessment tasks, less focus on informal assessment tasks

Provincial and district common assessment tasks are conducted in Grade 12, but not in Grades 10 and 11 with the setting of formal and informal assessment activities being the responsibility of teachers. Evidence of formal assessment tasks was found for the first, second and third quarter of the academic year and this was in compliance with CAPS, curriculum coverage, and programme of assessment (PoA). According to the mark sheets there was an indication of non-submission of tasks in all three quarters. To make a thorough judgement on the quality of a task, an analysis grid should accompany the task, but this was not case. The analysis grid indicates the level of complexity and how cognitive development is graded according to Bloom's taxonomy (DBE, 2014:5). No evidence of an analysis grid could be found to determine the quality of the assessment tasks and which processes were followed by the moderators to accept these tasks (*cf.* 3.6.1).

Informal assessment is regarded as the building blocks which informs formal assessment. Document analysis showed that informal assessment tasks do not receive the same attention as formal assessment tasks. Daily group work activities, which are related to group projects and group assignments, need to be monitored and teachers have to intervene when misunderstandings and misconceptions arise among learners. Thereby, teachers will have an idea whether they have to continue with new content or do they have to re-teach the same content. This will serve as a measure stick whether they apply group investigation correctly or not. In many cases, it was

evident that informal assessment activities were not even monitored by the teacher, corrections were not done and signed and some incomplete activities were just ignored. There was also evidence that not all sub-topics of the content were covered in the third quarter at three schools, which indicates non-compliance of curriculum coverage. The researcher is of the opinion that from the evidence of the informal assessment activities, it is difficult to determine whether the learners have grasped the content. The conclusion is that informal assessment is regarded less important as compared to formal assessment (*cf.* 3.6.1).

5.7.4 Theme 4: Feedback

Feedback was central to learning and can improve learner understanding and gives the learner the opportunity to reflect on areas that need improvement. The third term of the school year is normally dedicated for assignments and projects and teachers had to do a group assignment with all Grade 10 learners across the country (*cf.* 2.6.2). Feedback was central in many documents such as learners' notebooks, exercise books, assignments and tests that were analysed by the researcher. Feedback as a theme give rise to the following sub-themes: inconsistency in feedback, lack of quality feedback.

5.7.4.1 Inconsistency in feedback, lack of quality feedback

Evidence of inconsistent feedback was found in the learner notebooks. It was evident that feedback was not frequently done and it appeared that written feedback was dependent on the teacher. Examples of feedback comments from a few teachers were superficial and included: "*neatly done*" or "*keep it up*" or "*I am proud on you*". In some of the learners' notebooks was no evidence of any kind of comment or feedback from the teacher. Constructive feedback is given to the learner to avoid repetition of similar mistakes in the future and to motivate them for improvement (*cf.* 3.7.2).

Lack of quality feedback was evident in the reports from the School Management Teams (SMTs). Reports of monitoring and controlling of teachers' administrative work provided enough space for feedback and comments by the grade head, departmental

head, deputy principal or the school manager. Short phrases or comments appeared mostly in the comment box, without any detailed explanation on improvement. It is important to mention the best practices where some reports revealed excellent developmental feedback that identified what is expected from the teacher such as areas of concern, quality of work and timeframes on when to respond to recommendations.

5.7.5 Theme 5: Enhancing Quality Assurance

Document analysis has revealed quality assurance as an important aspect and theme of teaching and learning. For the purpose of this study, quality assurance can be defined as the systematic approach to ensure high quality teaching and learning in education. The following sub-themes emerged from this theme: standard of internal moderation, and quality of marking

5.7.5.1 Sub-theme 5.1: Standard of internal moderation, and quality of marking

Evidence from the document analysis revealed that internal moderation reports were available in teachers' file. This evidence included pre-moderation, post moderation and script moderation reports that have been implemented. The standard of internal moderation of the formal tasks was influenced by the non-submission of the analysis grid and the marking guideline [assessment tools]. In many instances' moderation could only be done on the formal assessment task and marking guideline. As a result of the non-submission of the analysis grid, moderation was compromised and did not have the ideal outcomes to quality assure the process. Some form of absence of internal moderation reports for the three quarters of the year, was evident in one or two schools.

There was evidence of the internal moderation process. The analysis of the moderation reports revealed that there was a low tolerance range between the marks of the subject teacher and the internal moderator. Therefore, a good standard of marking was maintained. Developmental feedback could be traced on the moderation reports of some of the formal assessment tasks (*cf.* 3.6.2).

5.7.6 Theme 6: Enhance and Sustain Support

Document analysis revealed that there is a need for teachers to be supported in employing different teaching methods and assessment in general, while learners need support in understanding of content and knowledge application. This support cannot only be a once-off activity, it has to be sustained over a period of time and therefore the emergence of this theme. Sub-themes have emerged as follow: support to learners, support for teachers (SMTs and District).

Sub-theme 6.1: Support to learners and teachers

Learners were supported in different forms by the teachers and the school management teams. Schools were required to develop a support programme on how to assist the learners who struggle with understanding of content and completing of assignments. Intervention programmes that were signed by the departmental heads include strategies such as individual face-to-face interaction with learners whereby certain content would be explained and extra afternoon classes. During the afternoon classes learners are supported in the form of re-teaching of content and revision exercises. Learners that perform poorly in the formal assessment would be given multiple opportunities to improve their performance (*cf.* 3.10.3).

Document analysis of subject intervention [catch-up] programmes and departmental circulars revealed that as part of professional development, teachers are required to attend departmental and provincial empowerment working sessions scheduled over weekends. Topics indicated on the programme during these sessions include development of high quality formal and informal assessment activities, co-teaching, teaching methods, teachers' subject knowledge and utilisation of resources (*cf.* 3.11).

5.8 ANALYSIS OF QUANTITATIVE DATA

As previously indicated, peer observers were selected to observe Life Orientation teachers using group investigation as a teaching approach. The researcher selected one peer observer per selected school, in total seven (n=7). The non-participant peer observers were required to complete the Teacher Classroom Observation Schedule (*cf.* Appendix O) during teacher presentations and learner interaction in group

investigations during Life Orientation lessons. Descriptive statistics was employed to analyse data from observation of various aspects observed in the classroom, such as lesson preparation, teaching methods, involvement of learners, teacher’s role, Life Orientation classroom environment, assessment activities, the use of teaching resources and learners’ expanded opportunities.

5.8.1 Planning of the Lesson

Planning of a lesson, which includes assignments, projects, investigations and forms of research investigations, was identified as the first and most important aspect before teachers can engaged in teaching and learning in any classroom. Figure 5.5 provides information based on the respondents’ responses.

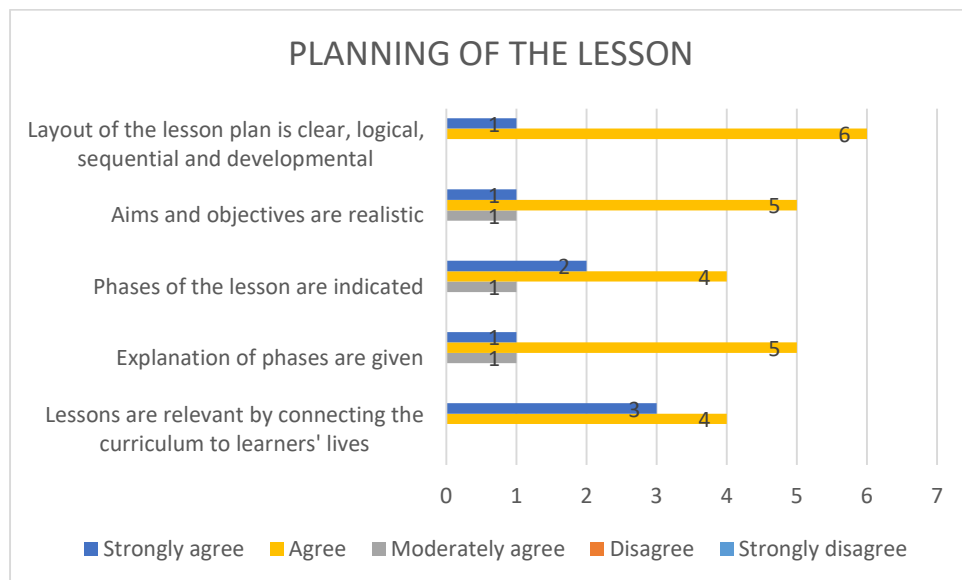


Figure 5.5: Planning of the lesson

Figure 5.1 shows that six (85.7%) from the observers indicated that they agreed that the layout of the lesson plans was clear, logical, sequential and developmental and one (14.3%) strongly agreed with them. Furthermore, five (71.4%) observers agreed that the aims and objectives were clear and realistic, while one (14.3%) strongly agreed and another one (14.3%) moderately agreed. This implies that all observers agreed with the set aims and objectives.

What is also indicative from the graph is that all observers have a common understanding that the phases of the lesson were indicated in the teachers planning. Four (57.1%) agreed, two (28.6%) strongly agreed and only one (14.3%) moderately agreed that phases of the lesson were indicated. Moreover, five (71.4%) observers agreed that the explanation of the phase appeared in the planning of the lesson in contrast to the one (14.3%) who strongly agreed and the other one (14.3%) who indicated a moderate agreement.

Lastly, four observers (57.1%) agreed and three (42.9%) strongly agreed that lessons were relevant by connecting the curriculum to the lives of the learners. This shows that 100% of observers were in favour with the link between the curriculum and learners' lives.

5.8.2 Lesson Presentation

The second aspect of the teacher classroom observation schedule emphasised the usefulness of a lesson presentation in order to apply group investigation successfully. The reflections of respondents in view of the aspect is represented in Figure 5.6.

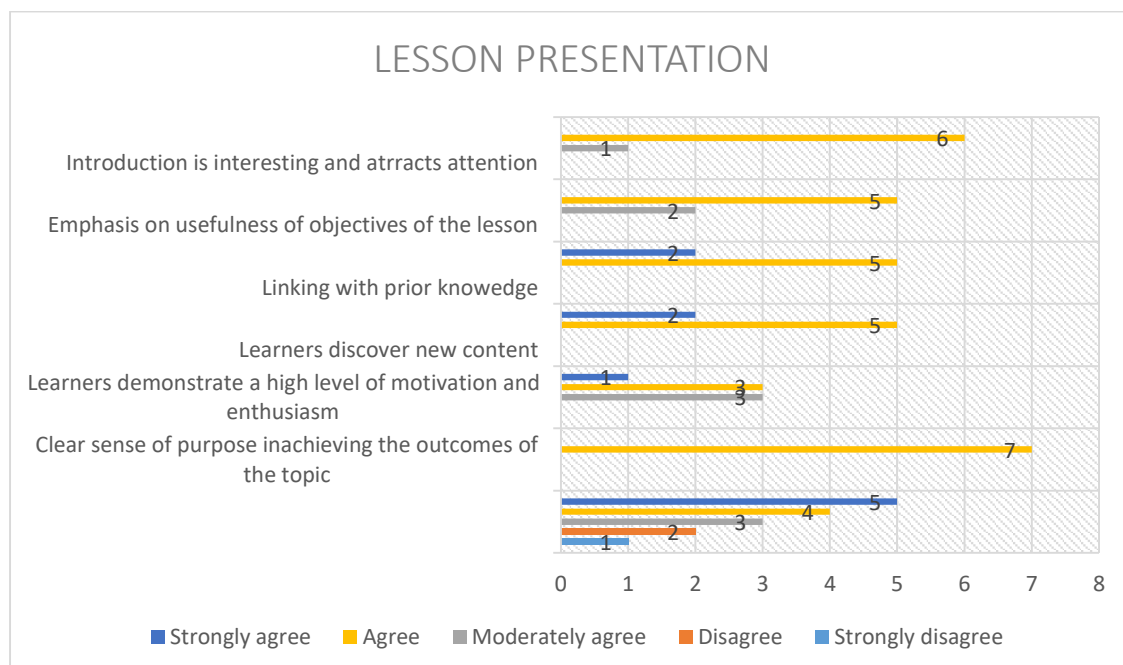


Figure 5.6: Lesson presentation

Figure 5.6 shows that six (85.7%) of the seven teachers found that the introductions of the lesson presentations they observed were interesting and attracted attention of the learners, while one (14.3%) moderately agreed. A moderate agreement was cited by two (28.6%) observers who felt that not much attention was given to the emphasis on usefulness of objectives of the lesson, while five (71.4%) agreed that the objectives were useful.

Furthermore, linking prior knowledge, which is important for diagnostic assessment, was cited by five (71.4%) observers on which they agreed, while two (28.6%) strongly agreed that the lesson was linked to learners' prior knowledge.

Five Observers (71.4%) indicated their agreement that new content was discovered by learners and two (28.6%) strongly agreed with this observation.

According to three observers (43.8%) who agreed and another three (43.8%) who moderately agreed, they indicated that learners showed a high level of motivation and enthusiasm. One observer (14.2%) strongly agreed that the motivation and enthusiasm levels of learners were high.

There was a 100% agreement by all observers that teachers had a clear sense of purpose in achieving the outcomes of the topic. It can be deduced from the graph that nobody was uncertain or in disagreement with the purposefulness of the teachers.

5.8.3 Teaching Methods

Group investigation as a cooperative teaching method must be effectively applied and must relate to the needs and skills of the learners. Respondents illustrated their opinions as follow in Figure 5.7.

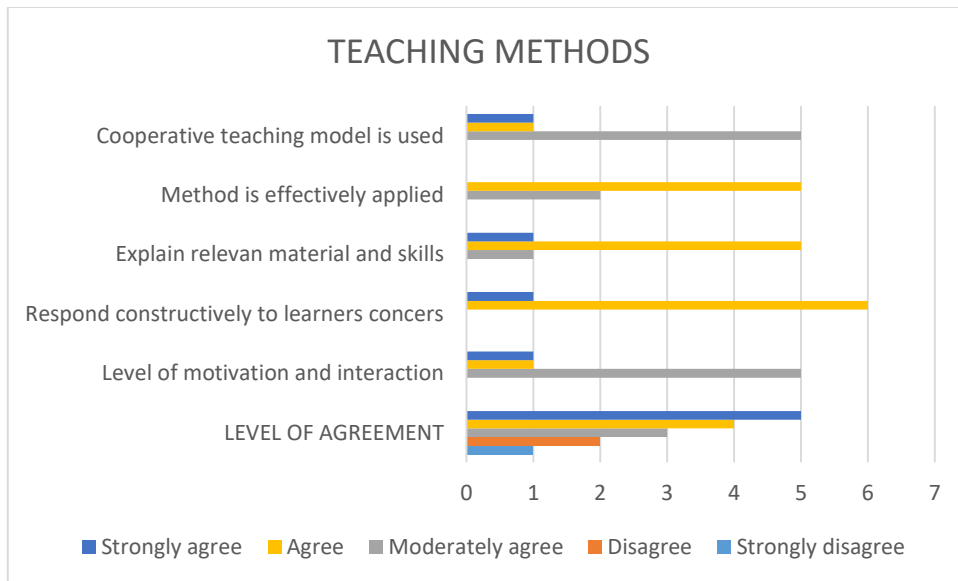


Figure 5.7: Teaching methods

The above graph shows that five (71.4%) of the observers moderately agreed that is a cooperative teaching model was used, one (14.2%) strongly agreed and another one observer (14.2%) agreed. Overall, 100% of the observers are in agreement that cooperative teaching methods were used in the observed Life Orientation classroom.

In relation to an effectively applied cooperative teaching method, five (71.4%) observers agreed, while two (28.6%) observers moderately agreed that the method was effectively applied.

From the above graph, it is indicative that five (71.4%) observers noticed and agreed that the teacher explained the relevant material and skills to learners, while one (14.2%) strongly agreed and, one (14.2%) moderately agreed.

Noteworthy, six (85.7%) observers agreed that teachers responded constructively to concerns that learners had with only one (14.2%) observer strongly agreeing.

Two observers (28.6%) strongly agreed or agreed that the appropriate teaching methods promoted a good level of motivation and interaction among learners, while five (71.4%) of them moderately agreed.

5.8.4 Involvement of Learners

Involvement of learners is a key factor in cooperative learning. Learners must be actively and constructively involved in group as well as individual activities. Observations are reported in Figure 5.8

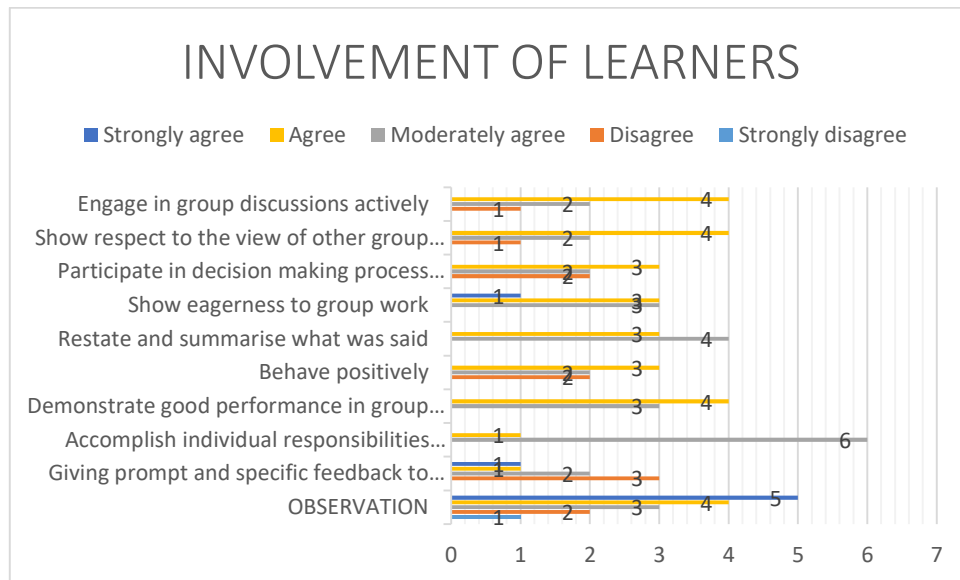


Figure 5.8: Involvement of learners

Reflections of the observers indicated that four (57.1%) agreed upon the involvement of learners during teaching and learning and that learners engaged actively in group discussion, two (28.6%) moderately agreed that learners were actively involved in cooperative learning and, while one (14.32%) was in total disagreement.

Another observation by five (71.4%) observers agreed that learners showed respect to the viewpoints and opinions of other group members, while two (28.5%) moderately agreed and one (14.1%) indicated that learners did not show respect to the view of other member and therefore illustrated disagreement.

On the part of learners actively participating in decision-making processes and problem-solving, three observers (42.8%) agreed, two (28.6%) moderately agreed and two (28.6%) disagreed that learners were actively participating.

It can be seen from the graph above that a total of 6 (85.7%) observers agreed or moderately agreed that learners showed eagerness to group work, while one (14.2%) strongly agreed with this observation during the observed Life Orientation lessons.

As can be seen in Figure 5.8, four (57.1%) moderately agreed that teachers restated and summarised what was said during learner participation, while three (42.8%) agreed with this observation.

Around three (42.8%) observers agreed that learners behaved positively in the classrooms and a combined total of four (57.1%) moderately agreed or disagreed.

As represented in the above graph, four (57.1%) observers agreed that learners demonstrated good performance in group work and three (42.8%) moderately agreed with learner performance.

Figure 5.8 depicts that a majority of six (85.7%) observers moderately agreed that individual learners accomplished their responsibilities during group work, while one (14.3%) agreed.

In giving prompt and specific feedback to each other about their actions, three (42.8) observers disagreed, two (28.6%) agreed and a further two (28.6) agreed or strongly agreed on observation of prompt feedback during Life Orientation lessons.

5.8.5 Teachers' Role

A teacher, as a facilitator, has an important role to play in a cooperative learning and the teaching environment. The reflection of the observers is giving in Figure 5.9.

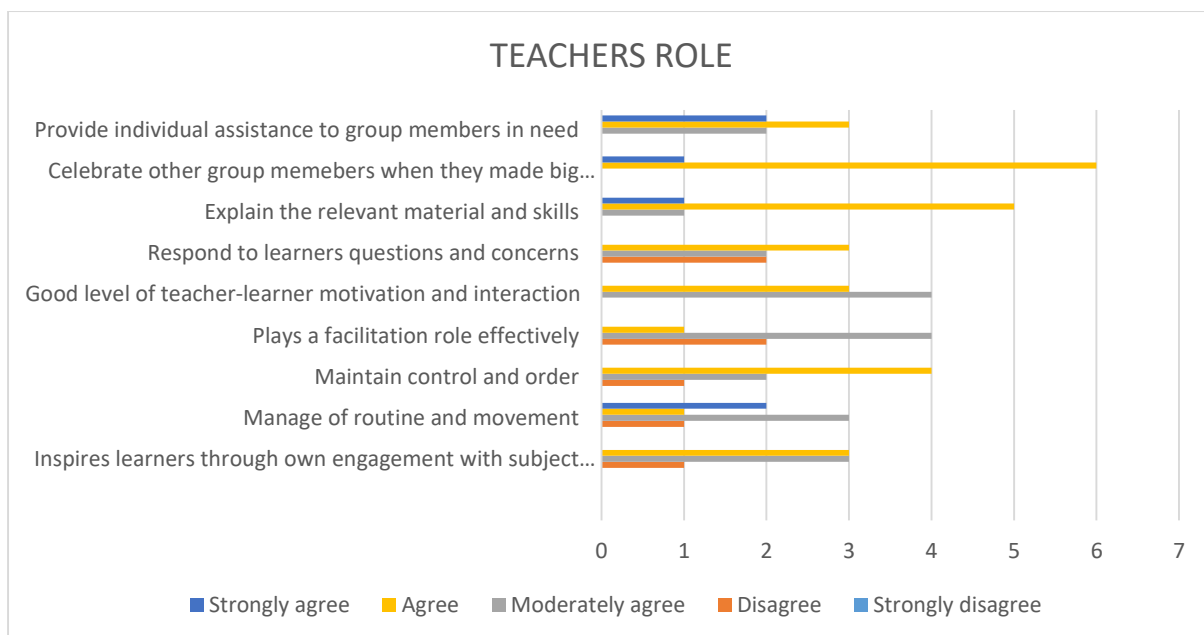


Figure 5.9: Teachers' role

It can be seen that three (42.8) observers agreed that teachers provided individual assistance to group members in need, a total of four (57.2%) moderately agreed or strongly agreed that teacher provided assistance to learners.

A high percentage of six (85.7%) observers agreed that teachers celebrated group members when they made contributions, whether major or minor and one (14.3%) observer strongly agreed.

Five (71.4%) observers agreed that teachers explained the relevant material and skills and a total of two (28.6%) observers moderately agreed or strongly agreed that the teacher fulfilled this role during the observed Life Orientation lesson.

Three observers (42.8%) agreed that teachers responded to learners' questions and concerns, two (28.6%) observers moderately agreed while two (28.6%) disagreed.

Teachers also have to maintain a good level of teacher-learner motivation and interaction with learners and it can be seen from the graph that four (57.1%) observers moderately agreed that teachers maintained a good level of motivation with three (42.8%) agreeing.

The data presented in Figure 5.9 gives an indication that one (14.2%) observer agreed and four (57.1%) moderately agreed that teachers effectively play a facilitator's role. However, two (28.6%) observers disagreed.

The graph also illustrates that four (57.1%) observers agreed that teachers were able to maintain control and order in their classrooms, two (28.6%) moderately agreed and one (14.2%) disagreed. No observer strongly disagreed or strongly agreed.

There was a strong sense of teacher management of routine and movement by the learners, two (28.6%) observers strongly agreed, one (14.2%) agreed and three (42.8%) moderately agreed. Only one (14.2%) observer reported to the contrary and disagreed that this role was effectively carried out.

Lastly, Figure 5.9 illustrated that six (85.7%) observers agreed or moderately agreed that teachers inspired learners through own engagement with the subject to further reading, activity and involvement outside school hours, while one (14.2%) disagreed that this occurred.

5.8.6 Classroom Environment

The classroom environment is an important contributory element to teaching and learning in the Life Orientation classroom. Observers' reflections are represented in Figure 5.10.

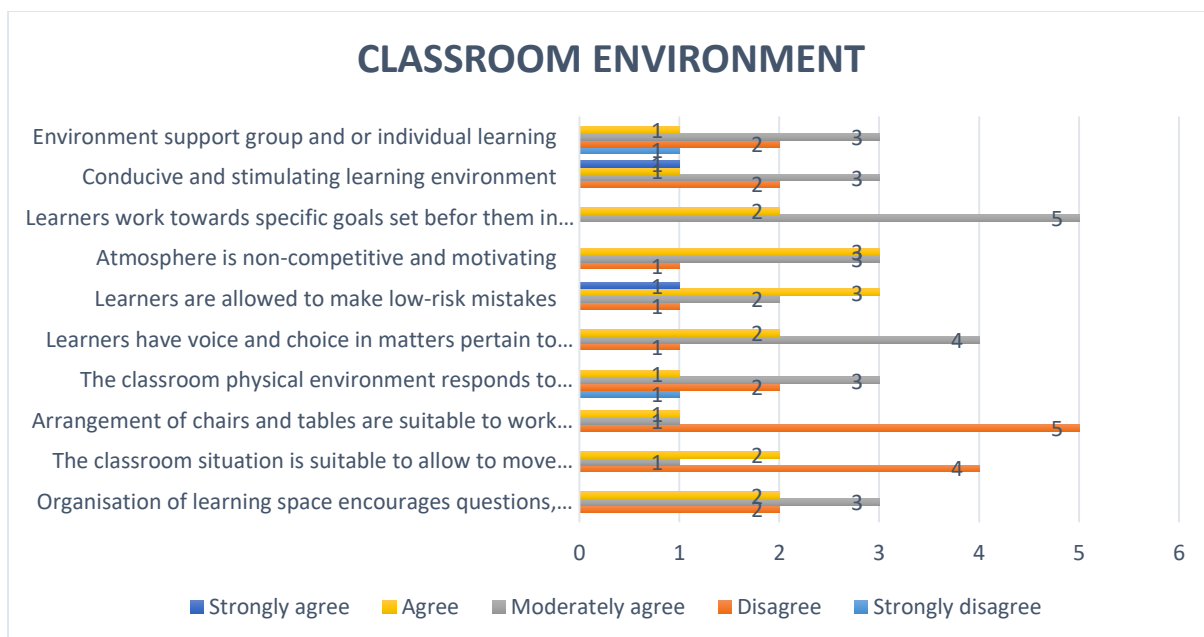


Figure 5.10: Classroom environment

What can be deduced from the above graph is that one (14.2%) observer agreed and three (42.8%) moderately agreed that the classroom environment supported group and/or individual learning. Two (28.6%) observers disagreed and in contrast, one (14.2%) strongly disagreed.

As presented in Figure 5.10, two (28.6%) observers strongly agreed or agreed, and three (42.8%) moderately agreed that the classroom environment was a conducive and stimulating learning environment, while two (28.6%) were in disagreement with the former.

In respect of teachers ensuring that learners work towards specific goals set before them in the class objectives, two (28.6%) observers agreed while a majority of five (71.4%) observers moderately agreed with this element of classroom environment.

Figure 5.10 indicates that a total of six (85.7%) observers agreed or moderately agreed that the atmosphere was non-competitive and motivating in the Life Orientation classroom, while one (14.2%) observer disagreed that this was noticeable during the observation.

The environment should ensure that learners are allowed to make low-risk mistakes. One (14.2%) observer strongly agreed, three (42.8%) agreed and two (28.6%) moderately agreed that learners were allowed to make low-risk mistakes. Only one (14.2%) observer disagreed that learners were allowed to make low-risk mistakes in such an environment.

Around two (28.6%) observers agreed, four (57.1%) moderately agreed and one (14.2%) observer disagreed that learners were given a voice and choice in matters that pertain to them in the classroom.

The classroom physical environment responds to learners' learning preferences. One (14.2%) observer agreed and three (42.8%) moderately agreed that the classroom environment responded to learners' learning preferences. In contrast, a total of three observers disagreed of which two (28.6%) observers disagreed and one (14.2%) strongly disagreed with their observation.

The graph also illustrates that one (14.2%) observer agreed, one (14.2%) moderately agree and a majority of five (71.4%) observers disagreed that the arrangement of chairs and tables was suitable for different group activities.

Two (28.6%) observers agreed that the classroom situation was suitable to allow for movement during some activities, one (14.2%) observer moderately agreed and a high percentage of four (57.1%) observers disagreed on the suitability of the classroom environment.

It can be seen on Figure 5.10 that a total of five (71.4%) who form the majority of observers, agreed and some moderately agreed that the organisation of learning space encouraged questioning, exchanging of ideas and experiences and cooperative learning classroom activities, while two (28.6%) observers disagreed, therefore learning spaces were considered not conducive for certain approaches to teaching and learning.

5.8.7 Assessment Activities

Assessment forms an integral part of teaching and learning and is also a mechanism used to determine the performance and abilities of the learners. The information in the Figure 5.7 below indicates the responses of the respondents.

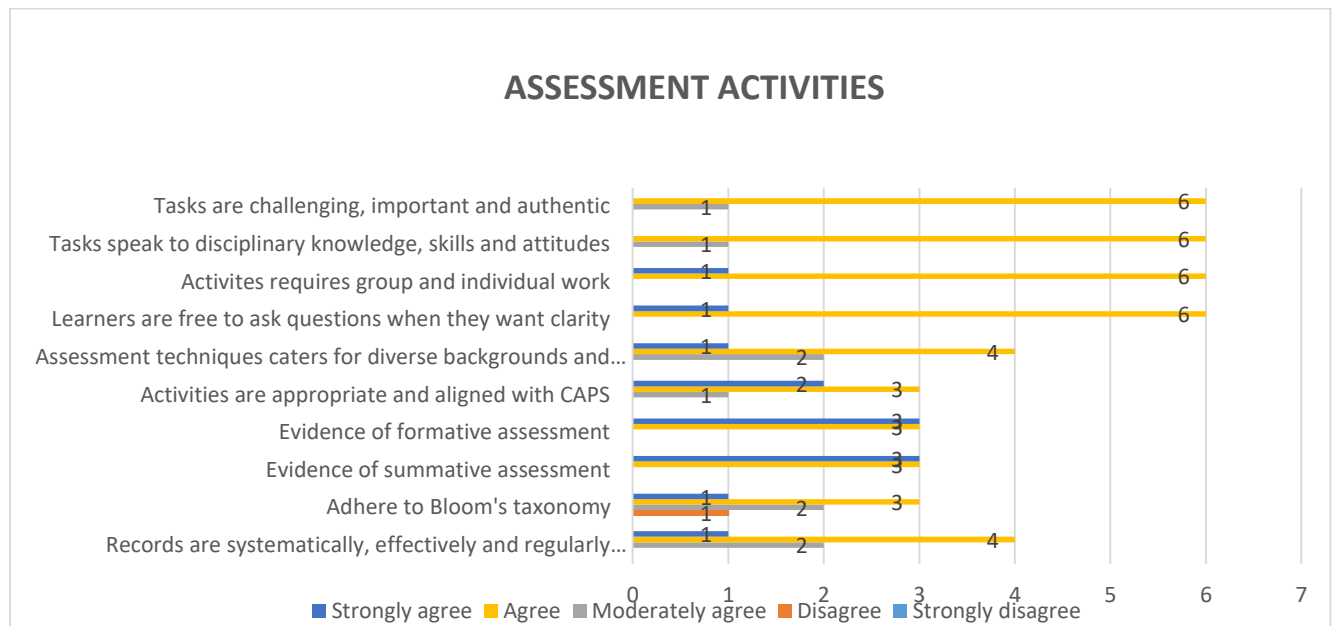


Figure 5.11: Assessment activities

From the above graph, it is indicative that six (85.7%) observers agreed that tasks were challenging, important and authentic, while one (14.2%) moderately agreed. There was no disagreement on this aspect.

Another positive observation from six (85.7%) observers on assessment activities, is that they agreed that tasks related to disciplinary knowledge, skills and attitudes, while one (14.2%) moderately agreed. This implies that all observers agreed on the suitability of the assessment activities.

One (14.2%) observer strongly agreed and six (85.7%) agreed that assessment activities required group and individual work. There was an overall sense of a lack of group and individual assessment activities in the observed Life Orientation classes.

Learners were free to ask questions when they needed clarity on certain issues in relation to assessment - the graph above indicates that all observers agreed, with one (14.2%) observer strongly agreeing and six (85.7%) agreeing.

The graph above depicts that one (14.2%) observer strongly agreed, four (57.1%) agreed and two (28.6%) moderately agreed that according to their observation, assessment techniques catered for learners from diverse backgrounds, with multiple intelligences and learning styles.

All observers agreed that activities were appropriate and were aligned with CAPS, two (28.6%) strongly agreed, four (57.1%) agreed and one (14.2%) moderately agreed.

All observers indicated that they noticed evidence of both formative and summative assessment with all seven teachers. This implies that a total of six (85.7%) observers strongly agreed or agreed and one (14.2%) observer moderately agreed on evidence of assessment during the observed Life Orientation lessons.

One (14.2%) observer strongly agreed, three (42.8%) agreed and two (28.6%) moderately agreed that assessment activities adhered to cognitive demands of Bloom's taxonomy, while one (14.2%) observer disagreed that there was adherence.

One (14.2%) observer strongly agreed that records were systematically, efficiently and regularly maintained during assessment, while four (57.1%) agreed and two (28.6%) moderately agreed on the maintenance of assessment records.

5.8.8 Teaching Resources

The focus of schools is now directed away from chalkboard-driven and textbook-driven methods to a data-driven method. The digital world and the fourth industrial revolution have however, challenged schools that are under-resourced. Observers responded as follows, as indicated on the graph:

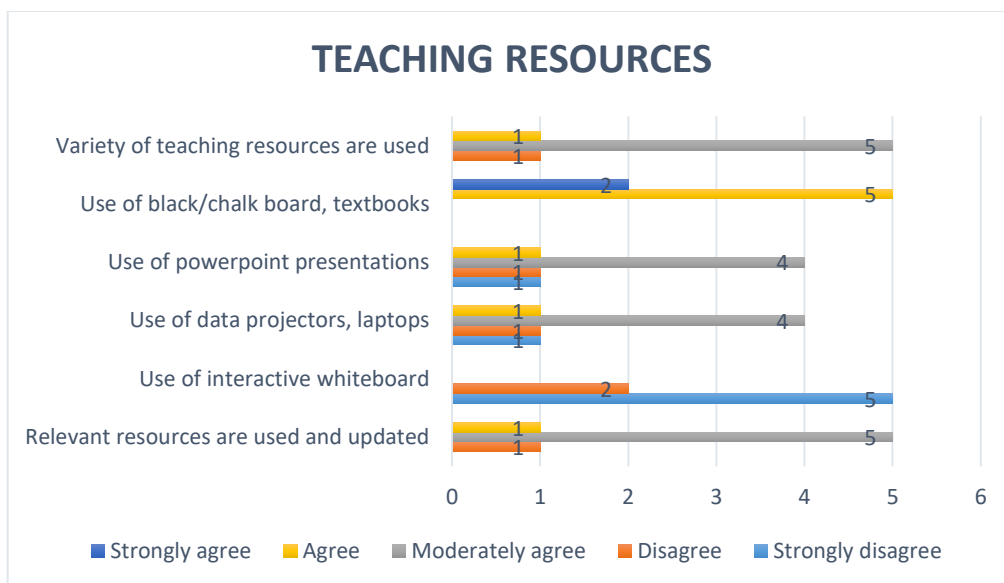


Figure 5.12: Teaching resources

Figure 5.12 depicts that only one (14.2%) observer agreed that a variety of teaching resources were used, five (71.4%) moderately agreed and one (14.2%) observer disagreed.

The use of black/chalk board and textbooks are common teaching resources. Two (28.6%) strongly agreed that teachers used these teaching resources and a majority of five (71.4%) observers agreed that these two resources were used in the observed Life Orientation lessons.

One (14.2%) observer agreed that teachers used power point presentations in their teaching and four (57.1%) moderately agreed. However, two (28.6%) observers disagreed or strongly disagreed that teachers used power point presentations.

One has to bear in mind that there is a dependency between power point presentations and the use of data projectors and laptops. Again, one (14.2%) observer agreed that the teacher used a data projector and laptop in his/her teaching and four (57.1%) moderately agreed. On the contrary, one (14.2%) observer disagreed and another observer (14.2%) strongly disagreed that teacher used a data projector and laptop. There is a correlation between the use of power point presentations and data projectors and laptops.

The graph illustrated that all observers disagreed that teachers used interactive whiteboards at their schools. Two (28.6%) observers disagreed and five (71.4%) observers strongly disagreed that whiteboards were used for the observed Life Orientation lessons. It may be that under-resourced schools are not as yet equipped with whiteboards.

One (14.2%) observer agreed that relevant resources were used and updated by teachers and five (71.4%) observers moderately agreed. However, according to one (14.2%) observer's disagreement, it was indicated that the relevant resources were not used and updated at the school.

5.8.9 Learners' Expanded Opportunities

Learners' expanded opportunities offer stimulation and enrichment. Figure 5.13 reports on the observers' responses.

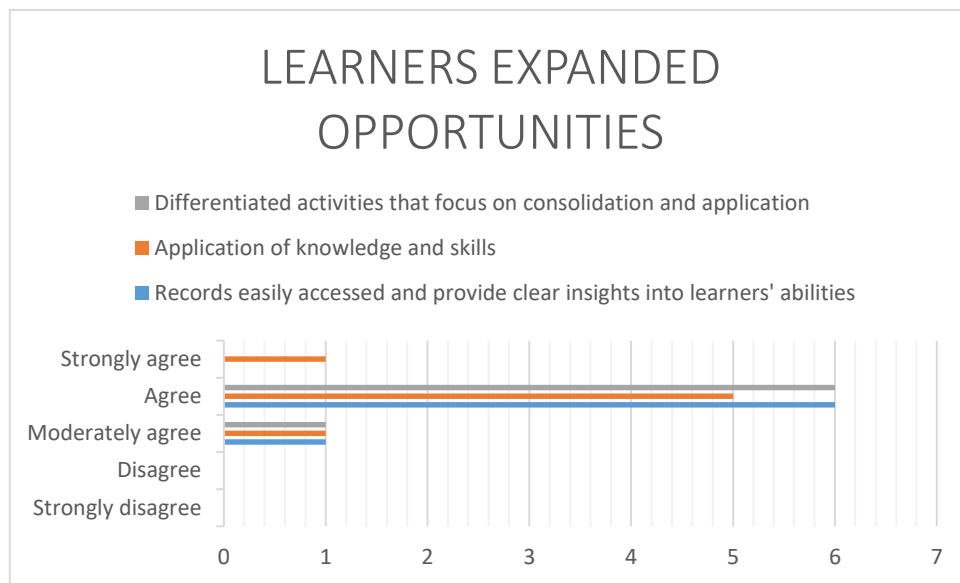


Figure 5.13: Learners' expanded opportunities

Figure 5.13 illustrated that six (85.7%) observers agreed that activities were differentiated and focused on consolidation and application, while one (14.2%) moderately agreed.

Application of knowledge and skills is an important element of teaching and learning and more specific in relation to learners' expanded opportunities. One (14.2%) observer strongly agreed, five (71.4%) agreed and another observer (14.2%) moderately agreed that the application of knowledge and skills was an important aspect as observed in the Life Orientation lessons.

Lastly, a majority of six (85.7%) observers agreed that records were easily accessed and provided clear insights into learners' abilities, while only one (14.2%) observer moderately agreed with the availability of learners' records.

5.9 CONCLUSION

The use of the mixed-method research approach played an important role in collecting rich descriptive data. In Chapter 5, the researcher presented the data and the emergent themes from the face-to-face teacher interviews, group discussion learner group interviews, teacher classroom observation and learner classroom observation of the Grade 10 teachers and learners in their respective classrooms and schools.

Data gathered from the face-to-face interviews with the Life Orientation teachers revealed that they have used different teaching approaches in their respective classrooms, despite the need in training in the implementation of group investigation as a teaching approach. However, teachers demonstrated positive and appropriate subject knowledge and pedagogical content knowledge of Life Orientation.

Data emanating from the group discussion learner interviews revealed their positive experiences during the implementation of group investigation during Life Orientation lessons. Learners appreciated the support team members gave to each other, sharing of responsibilities, building relationships and collaboration, as well as the conducive learning atmosphere in class, and the development of skills such as effective time management, learning of values and handling of conflict in the process.

The third set of data was compiled from classroom observation and completed by the peer observers of the respective schools. The non-participant peer observers had to complete the observation schedule during the teacher presentations and learner

interaction in the group investigations during the Life Orientation lesson. These observers highlighted focus areas such as learners' behaviour in groups, learners presenting with confidence and passion, adherence to timeframes, learners' responsibilities and how they contributed and participated in their respective groups.

The fourth set of data was compiled from the documents of the Life Orientation teachers of the respective schools. Documents were analysed by the researcher to evaluate the process followed by teachers to maintain curriculum management, which includes evidence of engagement. The constant comparison analysis approach was used to analyse the documents and it revealed the following themes: enhancing policy implementation, planning, and evidence of assessment, developmental feedback, enhancing quality assurance and lastly, enhancing and sustaining support.

The last collection of data was gathered from the Likert scale (summated rating scale) teacher classroom observation schedule/checklist to indicate their evaluation on how teachers are employing group investigation as a teaching approach in the Life Orientation classroom. Peer observers from the different schools reported on the lesson presentation, teaching methods, the involvement of learners, teachers' role, Life Orientation classroom environments, assessment activities, the use of teaching resources and learners' expanded opportunities.

In the next chapter, the researcher presents a summary of the study then discusses the findings and offers conclusions and recommendations arising from the study.

CHAPTER 6

SUMMARY OF CHAPTERS, DISCUSSION OF FINDINGS, RECOMMENDATIONS AND AREAS FOR FURTHER RESEARCH, LIMITATIONS

6.1 INTRODUCTION

The primary goal of this research was to explore the extent to which teachers make use of group investigation as a teaching approach to Life Orientation in the selected secondary schools in the Northern Cape Province of South Africa. This study commenced with a review of the literature then proceeded to empirical research. Certain findings and recommendations can be made, taking into consideration the literature review, personal experience regarding group investigation and cooperative learning, and the empirical results.

In this chapter, firstly, a summary of the research is provided. Secondly, the findings of the research are discussed in terms of the aims of the research and in relation to the theoretical framework in Chapter 2 and in relation to the extant literature (Chapter 3). Chapter 4 and 5 appeal to the extant literature and theoretical framework to support the empirical findings of the current research. Limitation of the study, mainly with regards to the methodology applied in this study, are also outlined. Thirdly, recommendations are made regarding the literature review, the empirical research and the guidelines for group investigation as a cooperative approach for Life Orientation teachers. Finally, areas for further research are outlined in relation to the findings in this current research.

6.2 SUMMARY OF THE EMPIRICAL STUDY RESEARCH FINDINGS

Several findings emerged from the interviews, observations and documents and were presented in Chapter 5. These findings were answering the following main research question: *To what extent do teachers make use of group investigation as a teaching approach to Life Orientation in selected secondary schools in the Northern Cape Province?*

6.2.1 RQ1: What does the scholarly literature on different teaching and learning approaches to Life Orientation in South African context entail?

The findings revealed that teachers tend to use traditional teaching methods in their classrooms. The finding is opposed to the literature which suggests that teachers should employ multiple teaching and learning approaches in the Life Orientation classrooms. Employing multiple teaching strategies mirror the competencies and skills of teachers' praxis and it also demonstrates how teachers can cater for the diverse group of learners in the classroom (*cf.* section 2.2). This is an indication that teachers take cognizance of the kind of learner and their circumstances and that they need to be motivated within a teaching and learning environment.

However, Killen (2009) argues that there is no teaching strategy that is better than others, so teachers have to use a variety of teaching strategies and decide which is more likely to be the most effective in a specific context. In addition, teachers should take note that a specific content allows for a certain teaching strategy or technique to be employed. Van Wyk and Alexander (2010) agree and postulate that in enhancing 'quality teaching' there is no single teaching strategy that is effective all the time for all learners but that the use of innovative ideas impacts on the efficacy of teaching which may lead to positive effects on student learning (Van Wyk, 2012). This illustrated the importance of teachers identifying learners' needs and shortcomings in order to address them within the learning environment.

The literature does however, reveal that there is an ongoing trend that teachers are changing their teaching approach and to fit into a learner-centred teaching environment. Pertaining to one of the fundamental aspects of Outcomes-Based Education is that the specific context dictates the most suitable teaching and learning practices and that the teacher is in the best position to decide what these practices must be (Van Wyk, 2007:134). Furthermore, teachers who are following the traditional teaching approach, and whose teaching is focused on the memorisation of information (rote learning), will have to make radical adjustments in order to adapt a new teaching paradigm.

From a South African viewpoint, teachers are in favour of multiple teaching strategies such as cooperative learning, inquiry-based learning and even the traditional teaching approach (*cf.* 5.4.1.). Jacobs (2011) define teaching methods [teaching strategies] as a style of teaching which is in line with a plan. In other words, it is a science that determines the best methods to explain facts and problems to learners. It is important that teachers have to be able to apply different approaches in order to cater for the diverse teaching environment found in schools. Learners from different cultural backgrounds must be accommodated and therefore required from teachers to be up-skilled and on par in applying these skills. To address the issue of diversity in the classroom, it is imperative that curriculum differentiation enjoys equally attention in teaching and learning. This could ensure that all learners will have an equal opportunity to learn.

Studies have shown that teaching and learning is enhanced when learners are active participants in the learning environment and are able to make meaningful contact with and experience the world in which they live. Van der Merwe (1986 cited in Van Wyk, 2007: 132) suggests that teaching approaches (educational actions) form a bridge between the teaching outcomes desired by the teacher and the eventual achievement of outcomes by the learner.

Within a cooperative learning approach, the learner is at the centre of the teaching process which implies that the learning environment has to be changed to a learner-centred teaching and learning environment. Group investigation as a cooperative learning and teaching approach, which is embedded in the social-cultural constructivist theoretical framework, is a team-based model that is based on development of skills, knowledge, values and attitudes. It provides learners the opportunity to build confidence and allows teachers to apply a holistic approach to their learners' personal, social, intellectual and emotional development. The advantages of successful implementation of collaborative learning is that it allows for input for the desired outcome, encourages learners and teachers to work together and also assist the teacher to make more decisions about the learning of the learners in the teaching learning environment. Furthermore, when learners are involved in group work and inquiry and are challenged with an academic problem, and learners' cognitive abilities, critical thinking and decision-making skills are developed (*cf.* 5.51).

Team work as a learning strategy in classrooms, necessitates that learners are taught about the roles they have to perform before they can engage in any form of group work. What is essential to team work is that learners within a group have to be able to make informed and correct decisions. In addition, they are exposed to other learners in their groups and must be able to communicate, manage conflict and be motivated to do so. Team work also leads to pleasant learning experiences for learners where they interact and help each other and even with differing abilities, developed respect for each other. The individual support as well as the group-by-group support was outstanding characteristics of collaboration among learners (*cf.* 5.5.1). The literature indicated the importance to clarify and improve the effectiveness with which members carry out the processes to achieve the group goals (*cf.* 3.4.1.5). It also develops the view that team spirit during group work boosts learners' confidence and self-esteem and therefore they can rely on the strength of their fellow members as well as other groups (*cf.* 3.7.4).

Learners develop a variety of different skills during the Life Orientation teaching and learning process. Communication, problem-solving and conflict resolution are skills that learners learned when they engaged in groups. Learners learn to understand each other through clear and sound communication which is the glue binding the friendships and relationships. In addition, learners were confronted with many challenges and are involved applying their knowledge in solving problems and learning and creating new knowledge through their investigations. Evident from the literature is that learners managed to solve problems on their own, while others who were used in solving problems could do it without the assistance of the teacher (*cf.* 3.8). Arguments and debates allow for many disagreements or opposite viewpoints and the teacher must design the platform whereby learners could critically engage in such issues. As a result, learners will be able to develop critical thinking skills and higher-level cognitive skills according to the cognitive levels as indicated in CAPS (DBE, 2011: 27) which stipulates that it must be divided into lower-order, middle-order and higher-order questions. Therefore, learners must be taught in such a way that they will be equipped to become independent thinkers and will respond meaningfully to any social engagement posed by society (*cf.* 5.7.4).

Feedback is regarded as a vital teaching strategy applied in Life Orientation. It is a system that determines whether learners have an understanding of the content taught or whether it is time to intervene. High quality feedback and in-depth reports from the subject specialists who to have an in-depth knowledge about the subject content, assists the learner to improve and develop their learning and at the same time, be used for the purpose of continuing professional teacher development (CPTD) which focuses on content, curriculum and classroom management (*cf.* 5.7.4).

To shed more light on the use of various teaching approaches, it is evident from the teachers' responses that the planning of the lessons was clear, logical, sequential and realistic with aims and objectives. With regards to the different components of the lessons, all teacher indicated and explained these components as well as indicating the phases of the lesson. To sum up, the majority of observers agreed that phases of the lesson were indicated and explanation thereof appeared in the planning of the lesson. In relation to the component under planning of the lesson, all observers agreed that lessons were relevant by connecting the curriculum to the lives of the learners. This shows that 100% of observers were in favour with the link between the curriculum and learners' lives (*cf.* 3.11) (*cf.* 5.8.1 & graph 5.5).

Teaching methods as applied in the Life Orientation classroom are important as these must relate to the needs, skills and knowledge of the learners. The observers agreed that the cooperative teaching methods used in the observed Life Orientation lessons were effectively applied (*cf.* 3.5.4) (*cf.* 5.8.3 & Figure 5.7).

6.2.2 RQ2: What are the specific theories foregrounding group investigation as a cooperative teaching and learning approach to Life Orientation?

The community of practice learning theory, Situated learning theory, Placed-based learning theory, Cooperative learning theory and the social-cultural learning theory indicate the active engagement of learners in a socially constructed learning environment which is facilitated by teachers in a Life Orientation classroom. Multiple theoretical components underpin group investigation as a cooperative teaching and learning approach are community of practice, situated learning, place-based learning, cooperative learning and the social-cultural learning theory (*cf.* Chapter 2). The

community of practice learning theory explains that the learning partnership is related to a specific domain of practice. Member are involved in the same practice while they also do different tasks in different teams, but still work together (*cf.2.6.1*). Situated learning theory describes the role of learners where they participate effectively in the social and physical environment within a specific learning context (*cf.2.6.2*). Furthermore, Placed-based learning theory refers to the place or context where learning should take place and also considers the culture and history in an integrated natural setting where knowledge can be constructed (*cf.2.6.3*). Cooperative learning theory lends itself to small group activities for learners to meaningfully participate and understand the subject or context much better as well as working in groups in order to set goals and achieve outcomes for the benefit of the group (*cf.2.6.4*). The social-cultural-learning theory of Vygotsky (1978) espouses the creation of social learning contexts, in this case referred to as 'environments', which serve as a venue for learners to negotiate and co-construct knowledge (Isidro, 2018: 20). This learning theory emphasises the contribution of the social environment and the learner's interaction with the environment to bring about change (i.e. learning) (*cf. 2.6*).

The common element of these components is the place or context where learning should take place and knowledge is constructed (Sobel, 2004:7). These learning theories ensure a learner-centred approach whereby learning is not constituted separately from the social world, one in which the learners become a member of the learning environment or situation. Group investigation as a small group learner activity, which takes place over a period of time, allows learners to become familiar with their environment which can promote effective learning (*cf. 2.6.3*). Group investigation is a teaching approach that teachers can use to develop the skill of problem-solving, researching skills and to learn to respect interdependency. It is also an approach which allow for in and out-door activities. Group investigation, as a cooperative learning approach, is a task specialisation strategy where learners work collaboratively in small groups to investigate and understand a phenomenon (*cf. 3.5.4*). It is a successful teaching strategy in which small groups, each with learners of different levels of ability, are exposed to a variety of learning activities to improve their knowledge and understanding. They work together so that group members can enjoy a common benefit from the group activity. Furthermore, the literature review highlighted the value of cooperative learning in enhancing teaching and learning outcomes. As a result, it

focused on group interaction, individual learning performance and teachers and learners' attitudes in a learner-centred environment (*cf.* 3.7).

The climate or situation has to be conducive for effective learning to take place, facilitated by teachers. Learners are comfortable and eager to show willingness to learn in the LO classroom (*cf.* 3.7.5) during group investigations. With group work, learners need to be aware of and be familiar with the various roles needed. Group leaders have the responsibility of managing others who behave disorderly. Positive inter-group behaviour must be strengthened among learners and in order to continue with, it is clear that learners need a positive, social environment to perform better at school (*cf.* 5.5.2).

Individual accountability is the responsibility that every learner has towards a group or the individual self. It is in this sense that learners have the responsibility to ensure that the common goal, which is the main purpose of the group task, can successfully be achieved and all will equally enjoy the benefit thereof. It is the responsibility of every teacher to emphasise the role that learners have to play, whether it is as individual or as a group, the level of contribution must at all times be the focal point of participation (*cf.* 5.6.6).

Teachers need to emphasise that everyone's contribution counts and therefore learners must at all times respect the efforts of each individual. Johnson and Johnson (2013) postulates that "success of one learner is dependent on the success of other learners." This is precisely what positive interdependence reports on, group members have a common goal and work jointly towards group success. The involvement of learners must include constructive engagement where they must feel free to give an opinion and have to be open-minded that members may agree or oppose such opinions. Learners' participation must also be characterised by robust discussions, enthusiastic and positive behaviour which must lead to participatory learning (*cf.* 5.6.7).

Documents revealed that there was compliance with the use of policy documents such as the National Curriculum Statement (NCS), the Curriculum and Assessment Policy Statement for Life Orientation (CAPS), the National Protocol of Assessment (NPA)

and the National Policy Pertaining to the Programme and Promotion Requirements (NPPPPR). Each of these documents incorporates various theories which support the teaching and learning process of delivering quality education (*cf.* 5.7.1).

The involvement of learners is a key element in cooperative learning. When learners enjoy participation in group activities with the common goals to benefit, they must accept responsibility on how they learn in a group and contribute to the success of the group in order for the successful completion of a task (Slavin, 2011) (*cf.* 3.3). The observers indicated the involvement of learners during teaching and learning and that learners for the most part, were actively engaged in group discussion which is promoted in cooperative learning and showed eagerness for involvement in group during Life Orientation lessons. The majority of observers indicated that learners demonstrated good performance in group work. The researcher deduced that much effort was put in by teachers to ensure that learners participated and enjoyed the classroom activities (*cf.* 3.4.1.2) (*cf.* 5.8.4 & Figure 5.8).

6.2.3 RQ3: What pedagogical Life Orientation content knowledge and skills should secondary teachers have in planning group investigation as a cooperative teaching and learning approach?

The seven roles of the teachers are clearly described by the Department of Education (DoE: 2006:5). The teacher is described as “a specialist in a particular learning area, subject or phase, a specialist in learning and teaching, a specialist in assessment, a curricular developer, a leader, administrator and manager, scholar and lifelong learner and a professional who plays a community, citizenship and pastoral role – that of a specialist in a particular learning area equipped with subject content knowledge (*cf.* 3.10.1) and pedagogical content knowledge (*cf.* 3.10.3).

Pedagogical content knowledge was defined through the criterion of the integration of content and pedagogy and how it demonstrates an understanding to translate subject matter knowledge into a classroom with diverse backgrounds and abilities of learners (Shulman, 1987:15). Shulman suggested teachers did not need to have pedagogical content knowledge alone, but every teacher must acquire and be equipped with

pedagogical content knowledge to teach the subject matter in such a way that to enable learners have a clear understanding of the new information.

The findings revealed that Life Orientation teachers were aware that of the value of appropriate subject knowledge, expertise in the subject, preferred methods of teaching and its influence on learner achievement (*cf.* 5.4.4). Teachers felt that a pedagogical content knowledge allowed for Life Orientation to be presented with confidence. In addition, it was found that teachers are on par with regards to the subject content and the pedagogical content knowledge as they have sufficient knowledge and teaching experience, to effectively teach the subject (*cf.* 5.4.4).

To teach Life Orientation effectively, teachers should know the content well and be completely informed by the curriculum policy. Teachers must possess a good and in-depth understanding of the content they will teach because it forms the foundations of their professional competencies and could have an influence on learner achievement. Teachers with high subject knowledge and skills, teaching experience and willingness to help, are able to use a variety of teaching approaches. To effect good teaching and learning process and respond to the needs of the learners, the teacher should employ a variety of the teaching strategies and to deliver the subject matter in a meaningful manner (*cf.* 2.2). In implementing group investigation, the above comes into play in addition to being well-prepared with good lesson preparation, be fully conversant with the content, have the relevant resources prepared and at hand and be able to manage the class in facilitating a learner-centred activity (*cf.* 5.4.1). This is reinforced by Sharan (2010) who asserts that teachers must prepare themselves thoroughly to ensure that cooperative learning succeeds. This means a change in the role of teachers and the kind of interaction between the teacher and the learner. Teachers must commit themselves to spend time in lesson preparation and planning with repeated practice and set up a support structure whereby they give regular feedback to inform further learning (*cf.* 3.6.4).

In many schools in South Africa, subjects such as Life Orientation are allocated to teachers who had no subject content knowledge or just to fill up the timetables and as such were regarded as ineffective teachers (Mosia, 2011). In addition, the findings of this study reveal that even though teachers indicated that they have a sound

pedagogical content knowledge to teach Life Orientation, they find it difficult to teach some of the topics stipulated in curriculum as they are not comfortable with the content. Another challenge with regards to the pedagogical content knowledge of teachers, is that the novice and inexperienced teachers find it difficult to cope with the volume of subject matter (*cf.* 5.4.4).

The reviewed literature further elucidated that teachers with limited subject-content-knowledge of the subjects find it difficult to effectively respond to learners' concerns and to clarify any misconceptions in their understanding of the subject content and cognitive challenging learning situations (Gama, 2015). To paint a clearer picture to teachers' pedagogical knowledge is that teachers who enters the teaching fraternity need to gain that teaching experience in order to contribute effectively to the performance of learners. Samuels (2012) argues that teachers were not sufficiently trained to teach Life Orientation content and this has resulted in a less confident teacher deliver the Life Orientation curriculum. It was also found that novice teachers often enter the Life Orientation classroom with low confidence because of their limited teaching experience and knowledge to interpret and analyse content from the different topics in the Curriculum and Assessment Policy Statement document (*cf.* 3.10.3).

It is noteworthy to mention that the successful completion of a task is one of the main outcomes of teaching and learning. The successful completion of the task is merely based on the individual as well as the group's contributions and responsibility towards the end goal (*cf.* 5.5.3). Therefore, teachers have to apply their basic professional content knowledge and pedagogical content knowledge to manage the teaching and learning process to ensure success. Being guided by a teacher who applies both subject and pedagogical content knowledge develops positive attitude in learners, instills pride in their word and in addition, have developed vital skills. Learners successfully work towards positive interdependence due to their cooperation and the effort they have put in to achieve the outcome (*cf.* 3.4.1.1).

Assessment, integral to the teaching and learning process, is a continuous planned process of identifying, gathering and interpreting information about the performance of learners, using various forms of assessment (DBE, 2011a:25). However, it seems that there is a lack of quality in formal assessment tasks being conducted. Evidence

indicated assessment in three quarters but outstanding marks were the result of non-submission of tasks by the learners. To fully understand the assessment tasks, an analysis grids, which displays the level of cognitive demand and the level of complexity of questions according to Bloom's Taxonomy, should be attached. However, without the grid, it is difficult to make a thorough judgement on the quality of the tasks (*cf.* 5.7.3).

Informal assessment, is a daily monitoring of learners' progress, providing learners with a variety of opportunities to develop and master the knowledge, skills and values related to the subject. Informal assessment should be used to provide feedback to the learners (DBE, 2011a:25). It seems that informal assessment was not regularly monitored and followed up by the teachers. It was also revealed that many learning activities were incomplete and there was a non-compliance of curriculum coverage. In view of the researcher, there was a lack in compliance and adherence to policy with regards to informal assessment. In terms of subject and pedagogical content knowledge, it seems that teachers are not preparing thoroughly to ensure that cooperative learning within the Life Orientation class achieves its outcomes. Finally, purpose of any formal or informal learning activity is to ensure that learners participate in the teaching and learning and to demonstrate an understanding on the given content (*cf.* 3.7.2) and should be an integral part of the application of teacher subject and pedagogical content knowledge.

Assessment forms an integral part of teaching and learning and is also a mechanism used to determine the performance and abilities of the learners. Importantly so, in many cases it determines whether a learner has met the required outcomes to be promoted or not. The observers agreed that tasks were relevant, challenging, and authentic. A further observation that assessment activities can be implemented either with group or individual work but there seemed to be an overall lack of group and individual assessment activities in the observed Life Orientation classes. All observers agreed that activities were appropriate and were aligned with CAPS. Lastly, and in relation to adherence to cognitive demands of Bloom's taxonomy, observers agreed that assessment activities adhered to cognitive demands of Bloom's taxonomy, with only one observer disagreeing. This observation corroborates with the documents that

indicated that quality assurance must be enhanced and more support should be given to teachers (*cf.* 3.10.3) (*cf.* 5.8.7 & Figure 5.11).

Responses from the lesson presentation highlight six components that were observed. From the observation of these components the researcher deduced that peer observers agreed that all teachers complied with essential elements of the lesson presentation. Therefore, none of these six elements indicated any form of disagreement or strongly disagreement. Figure 5.6 indicates that observers seven teachers found that the introductions of the lesson presentations interesting and attracted attention of the learners, that the objectives of the lesson were useful and that teachers created a good link between prior knowledge and the lesson (*cf.* 3.10.2; 3.10.3) (*cf.* 5.8.2 & Figure 5.6).

The classroom environment should be an environment that is favourable to the teaching and learning process. What is evident and most concerning about classroom environment is that the majority of factors in the classroom environment category were given a negative indication. In other words, from the 10 indicators, the high majority of observers indicated the classroom environment did not support group and/or individual learning and was not a conducive and stimulating learning environment. Of concern is that the majority observers felt that the arrangement of chairs and tables was unsuitable for different group activities. This implies that the infrastructure remains a challenge and that schools must plan appropriately to rectify the problem that could hinders effective teaching and learning (*cf.* 3.10.2) (*cf.* 5.8.6 & Figure 5.10).

6.2.4 RQ4: What are the benefits and challenges of group investigation as a cooperative teaching and learning approach to Life Orientation?

Cooperative learning strategy lends itself to small group activities for learners to meaningfully participate and understands the subject or context much better. On the other hand, learners experience interaction in which every team member is responsible for each one in the group and must ensure that everyone knows and understands the same content. Group investigation has advantages for both the teachers and the learners. The findings revealed that thorough planning and structure of the lesson effective teaching and learning can occur with learners being motivated to become actively involved in the construction of knowledge (*cf.* 5.4.3.). Learners

eagerly became involved in group investigation which assisted learners in research and assignments. This is in line with the expectations of the Department of Basic Education (DBE, 2011) that pointed out that teachers should ensure that learners are exposed to a variety of forms of assessment, among others, written tasks which include source-based tasks, assignments and written reports across the three grades so that learners do not repeat the same form of assessment in the different grades (*cf.* 5.4.3.). In using a cooperative learning approach such as group investigation learners are exposed to a variety of skills that they can apply in their daily lives (*cf.* 5.4.3.). Learners become independent workers, can seek for information on their own and developed confidence in working individually (*cf.* 5.4.3.). Another advantage was that during group investigation activities, learners learn to interact with group member, learn to listen, learn to contribute ideas and learns respect other members' opinions (*cf.* 5.4.3.). When learners are involved in group work and inquiry and are challenged with an academic problem, their cognitive abilities, critical thinking and decision-making skills become essential developing elements (Slavin, 2010:7).

Findings in this study revealed that learners displayed good understanding amongst each other which facilitated effective communication and made it possible that they could speak without being concerned whether their answers were incorrect or not. In addition to that, learners were shared their ideas and opinions and these ideas led to new discussion of the topics (*cf.* 5.6.2). As learners showed care for group members, they also developed a mutual feeling of trust and respect that binds the members of such groups. Furthermore, learners displayed a positive attitude towards each other and they were also very tolerant towards members which further enhanced their active participation. Learners developed a sense of unity in the groups and this led to feelings of accountability and responsibility. These attitudes displayed by learners in the Life Orientation classroom, demonstrated a learner-centred classroom environment where constructive teaching and learning was occurring. The inter-connection among group members enhanced effective and positive relationships which stimulates learning.

In cooperative learning, learners work towards a common goal and one's success is the success of the whole group. Their involvement in the groups over time enables them to make valuable contributions to the group. The quality of work that learners be produce in their groups must then be mirrored their positive behaviour. It is important

that learners learn that when working within groups, they have a shared responsibility to ensure that they are successful in the completion of the tasks. It is evident from the literature that although learners have a choice in life, some prefer to work alone, but cooperative learning has the specific goal to address these kinds of beliefs (cf. 2.2). This type of attitude must be detected by the teacher at an early stage so that the teacher must know what kind of remedy should be applied (cf. 5.5.3).

The literature reveals that the intention of cooperative learning is to change the egocentric behaviour of learners by restructuring the reasons for learners to work together (cf. 3.4.1). It is to be said that the success of one learner is dependent on the success of other learners (Johnson & Johnson, 2013: 8). In summation of the benefits of cooperative learning, although there is so much to expand upon, it remains the teacher's belief in his/her ability to complete the steps required to accomplish a particular teaching task in a given context.

The findings in this study revealed that contextual factors played a major role when teachers have to implement group investigation as a cooperative teaching approach and teachers are often demotivated to apply this investigation type (cf. 5.4.6). Several challenges that arise in group investigations stem from the large numbers of learners in a class resulting in overcrowded classrooms which has a negative influence on the teaching and learning process (cf. 5.4.6). Overcrowded classes have a spiral effect that leads to high noise levels and behavioural problems among learners (cf. 5.4.6). A major concern is the time lost in reprimanding learners who misbehave. This can be seen as a concern as it frustrates the teachers and it seems that there is little retribution for poor behaviour. The high noise levels make it difficult for learners to concentrate on the lessons, participate effectively in the groups and the fact that they learn at different rates and in different ways, limits the amount of time teachers can spend on teaching and learning in the classroom (cf. 5.4.6). Some learners want to take control, enforce their opinion and are disrespectful in not considering other members of the group (cf. 5.4.6).

Some learners want to take control, enforce their opinion and are disrespectful in not considering other members of the group (cf. 5.4.6).

Learners also experienced intra-group difficulties such as lack of commitment from their fellow group members during group investigation activities. In some cases, learners depended on others to do the work without offering any contribution. Some learners showed no interest at the tasks at hand, but completed work of other subjects. Some learners were ignored by members in the group and felt a sense of alienation and exclusion. Some learners fought in the group and some learners tended to be ignorant without have any respect for the teacher. In addition, some members become over-dependent on the class teacher or the group which means that some learners were unable to work on independently and manage their own work (*cf.* 5.5.6).

Another challenge which is that teachers often find themselves in situations where learners do not want to cooperate willingly and freely in cooperative working groups (*cf.* 5.5.6). In addition, learners might feel threatened by assisting fellow classmates from achieving or are not willing to share information (*cf.* 5.5.6) (Johnson *et al.*, 1995). What came to the fore was that learners were disruptive within their learner groups and when learners presented their information to the whole class group, negative comments were made to distract learners from their presentations. Of concern is that such incidents are sometimes unnoticed by the teacher and not reacted on.

It is evident from the findings that learners behaved differently in groups and it may be that the socio-cultural context in which learners grew up, has an influence on them (*cf.* 3.7.5). The teacher's role is to ensure that all learners feel equally important in the different learning groups.

Physical aspects also form challenges to effective group investigation. Overcrowding of classrooms has been mentioned. In addition, inadequate resources such as tables and chairs (or desks) which can be moved around to form effective groupings, were a challenge. It was found in many classes that the seating arrangement of learners was a concern with two or three learners sharing a chair. With learners are not sitting correctly or comfortably, group investigation sessions might be too long, therefore they become unruly and cannot really participate in the activities (*cf.* 5.4.6).

Management of time was a further challenge. Often teachers are called out to their role in the School management teams with obligatory duty which hampers effective

teaching and learning process. In addition, unexpected Departmental sessions result in teachers travelling long distances to attend these sessions and as a result, leave school early and much contact time is lost in the process (*cf.* 5.4.6).

Tran (2013:102) states that the quality of interaction among group members depends on the size of the group and the manner in which learners cooperate on their learning tasks. The author sustains that not only is the size of the groups that matter, but the quality of group interaction also depends on the learning environment. These challenges are contributors to the misbehaviour of learners during group work activities. Therefore, a conducive learning environment and the proper training of learners on how to cooperate in groups are essential elements to instil behaviour appropriate for group work (*cf.* 3.4.1.2).

Planning was also identified as an area of concern. Findings revealed that lesson preparation lacks thorough explanation of the different sub-components that should be included. Teachers only highlighted these sub-topics and did not indicate in detail how lessons would unfold and be executed (*cf.* 5.7.2.1). These main components include among others, linking the lesson with learners' prior knowledge, learner participation activities, learning and teaching support, and in many cases informal assessment. School management teams should not only look to the compliance of lesson preparation, but should attend to the quality and thorough completion thereof. The telegraphic style of lesson preparation should also be discouraged because it does not indicate any detail of the necessary components a lesson should entail. Another shortcoming of the lesson preparation, is when teachers used cooperative learning strategies that were not specified and explained. In the view of the researcher, teachers only mention the concept 'cooperative learning', but did not describe the kind of cooperative learning strategy (*cf.* 3.5). The fact that multiple teaching and learning approaches were indicated in their planning, more focus should be given to learner-centred methods in the life orientation classroom (*cf.* 5.7.2).

As indicated in previously, schools are moving from a chalkboard-driven and textbook-driven methods to a data-driven method. Schools have to become familiar with the challenges facing the fourth industrial revolution (4IR). It is evident that the responses on teaching resources was not that favourable with only one observer indicating that

a variety of teaching resources were used. Teachers still resort to using traditional methods such as the use of black/chalk board and textbooks. This raises a concern as in the new digital age, a vast array of resources is available to teachers to ensure quality of learning. In the observed Life Orientation lessons, observations indicated that there was some use of data projectors with laptops and power point presentations. Lastly, it was evident that schools are not yet equipped with whiteboards as a teaching resource. The findings indicate that teachers need to be trained in using new digital resources in order to improve the quality of the teaching and learning process (*cf.* 3.10.3) (*cf.* 5.8.8 & Figure 5.12).

Learners' expanded opportunities are in many instances used to stimulate learners' capabilities and cognitive thought (*cf.* 3.11). However, Figure 5.13 illustrates that activities were not differentiated but focused on consolidation and application. The application of knowledge and skills was considered an important aspect, as observed in the Life Orientation lessons. Finally, observers were in agreement that learner records should be accessible to offer information on learners' abilities which would aid the teaching and learning process (*cf.* 3.8) (*cf.* 5.8.9 & Figure 5.13).

6.2.5 RQ5: What are the strategies to improve teacher proficiency regarding group investigation as a cooperative teaching and learning approach to Life Orientation?

Teachers need to have an understanding of the policies issued by the Department of Basic Education and the school. These policies include the Life Orientation CAPS document, the Annual Teaching Plan (ATP) and the lesson plans. Teachers need to know how to implement CAPS, taking into account the correlation between their lesson preparation, following the lesson preparation as stipulated in CAPS (*cf.* 5.7.1) and the resources needed.

Teachers' roles are more than just to disseminate knowledge as it was apparent in the traditional teaching approach. Teachers of the 21st century must possess good in-depth subject knowledge to respond to learners' challenges. It requires Life Orientation teachers to be skilful to apply various forms of teaching approaches to easily and effectively produce good results. Again, teachers must have a good understanding of

the content that needs to be taught and that learners can fully conceptualise or interpret the content. Therefore, it is expected that teachers update their subject knowledge on general teaching and particularly with group investigation as a cooperative teaching and learning approach. The researcher argues that schools must inhabit the idea of collaborative teaching and co-op teaching methods in order to fill the gap where teachers lack of specific content knowledge or where they want to up skill their abilities.

Another area to improve on teacher's proficiency is management. Management has different sections and, in this case, it is in relation to management of the classroom, management of discipline of learners and management of the curriculum. These arguments elucidate the need for life orientation teachers to be trained in group investigation (*cf.* 3.10.1). This includes time management as most cooperative work is dependent on timeframes. Learners had to adjust to timeframes though some have spent much longer on certain activities. When learners managed to finish their assignment in time, it created a feeling of relief and excitement to the group members for their hard work. Not only have learners learned to finish their tasks in time, they realised that quality of the tasks was important. Working on a quality task was important because they were much focussed and they have to listen to each other. While they were listening to one another, they learned to clarify many misunderstandings during the process.

Professional development is vital especially with the introduction of a new curriculum. Thus, workshops and in-service training conducted by the Department of Basic Education with regards to updating and informing the teachers at school level is vital. Teachers should be encouraged to attend relevant workshops and sessions as contributes to their personal development scores. These meetings must be scheduled at appropriate times and strict adherence must be followed. This will lessen the burden of curriculum coverage because teaching time will not be compromised. In addition, the meetings should be planned and teachers need to be informed in advance about these arrangements (*cf.* 5.4.2).

The main focus of teaching and learning in the 21st century is to develop skills in learners so that they can become independent and confident citizens. Learners enters

the learning environment with their own personality and perceptions and therefore it is the responsibility of teachers to not only offer content but to work towards developing vital skills. Teachers need to take cognisance of learners from diverse cultural backgrounds and assist them in overcoming challenges which they may face by providing an environment conducive to learning. This concurs with Portera (2008:484) who suggests that classrooms should be regarded as resource centres that can accommodate various ethnic groups (*cf.* 3.7.5). In addition, issues such as tolerance for values need to be highlight with teachers emphasising the importance of strong value system. Learners must be able to help and encourage each other to be respectful, accountable and learned to trust one another (*cf.* 5.6.4).

Monitoring and support by the school management teams is vital in ensuring quality education. In the case of Life Orientation teachers, monitoring applies to learner records recording and reporting their progress. Monitoring and support should be executed consistently and the ideal is that evidence of assessment of all quarters should be recorded, filed and stored in the principals' offices (*cf.* 5.7.1). Feedback by departmental heads to Life Orientation teachers will support them in their attempt to implement a variety of learner-centred cooperative teaching approaches, such as group investigation (*cf.* 5.7.4).

Teachers have various roles to undertake in and outside the classroom. One major role is to instil knowledge, skills, attitudes and values in the lives of the learners. It can be ascertained from the observers that teachers provided individual assistance to group members in need and in facilitating group work, motivated and encouraged group members on their contributions, whether major or minor. Important evidence indicated that teachers maintained a good level of teacher-learner motivation and interaction with learners. It was observed that teachers through own engagement with the subject, inspired learners to further reading, activity and involvement outside school hours. Gagnon and Collay (2007) argue that the teacher's role is to inspire and lead learners to work collaboratively with information in order to understand, remember and organise it effectively (*cf.* 2.6.4). By implication, teachers must skilled to work as individual task members and with their groups as a whole (*cf.* 3.7.3) (*cf.* 4.8.5 & Figure 5.9).

6.3 RECOMMENDATIONS FOR POLICY, PRACTICE AND FURTHER RESEARCH

6.3.1 Recommendations for Policy

The Curriculum and Assessment Policy Statement for Life Orientation is regarded as policy whereby all teachers are legally obliged to follow and adhere to the requirements and expectations it alluded to. Teachers must follow the annual teaching plan (ATP) as captured in CAPS, when they plan and prepare their lessons accordingly. CAPS is the official document that must be used and teachers can use any additional resources, that is, video-clips or alternative textbooks, which may have value to their teaching and learning. However, many challenges arise in the implementation of CAPS, thus, the following recommendations are offered:

Recommendation 1: Curriculum implementation -The Department of Basic Education (DBE) should identify schools with underperforming subjects and district officials should strengthen their school-support visits and monitoring to these schools. Support visits should not only focus on monitoring teachers work, but should include practical lesson demonstrations, such as group investigation as a teaching approach, of curriculum implementation. These practical lessons should immediately be followed up by critique and discussions whereby reflections can clear any misconceptions and beliefs.

Recommendation 2: Continuous CAPS training - Principals and departmental heads should be re-trained on CAPS and this training should firstly be a generic training where general aspects are dealt with, followed up by the subject specific training with departmental heads. These sessions will empower all SMTs to assist and guide subject teachers such as Life Orientation teachers.

6.3.2 Recommendations for Practice

Policy needs to be put into practice, and thus the following recommendations are offered:

Recommendation 3: Learner-centred approach - Life Orientation teachers should be trained to make a paradigm shift from the traditional teaching approach to a learner-

centred teaching approach deploying different teaching and learning approaches such as cooperative learning. Implementing a learner-participatory approach will enhance learners' performance in the Life Orientation classroom and ensure that diverse groups of learners are actively involved.

Recommendation 4: Cooperative learning - Group investigation as a cooperative learning technique should be infused in the Curriculum and Assessment Policy Statement (CAPS).

- Life Orientation teachers should be encouraged to implement the cooperative teaching approach.
- Long service teachers could assist the novice teachers in subject areas where there is need. Where topics of sections are intertwined from subject to subject, respective teachers can assist each other in these sections. Teachers who teach different subjects, can plan together and streamline the integration of sub-topics so that no repetition of content should take place.
- Opportunities should be created for teachers to share knowledge in which they can improve their understanding and interpretation of the Life Orientation curriculum. Schools should be learning communities that provide conducive learning environments where Life Orientation teachers can work in and in a collaborative manner be able to exchange creative and innovative ideas and best practices.

Recommendation 5: Training - Teachers play an active role in the implementation of group investigation as a cooperative teaching and learning approach. Group investigation as a cooperative teaching and learning approach, is a process and structure that needs thorough planning and have to be implemented correctly to achieve the desired outcomes. Therefore, it is a necessity for teachers to be trained so that they can have a proper understanding of the procedure in applying this technique and that the effective application of GI provides an authentic means to cross and strengthen the boundaries between teaching skills needed by the teacher and the potential learners.

- The Department of Education should establish a data base of those teachers without appropriate Life Orientation qualifications and compelled them to enrol for specific Life Orientation module.
- Training should not be a once-off and a watered-down training session, but it should be continuously followed up with short training sessions.
- In addition, teachers should be encouraged to register for accredited courses with one of the Higher Educational Institutions (HEI). Further training and qualifications could contribute to their recording of Professional Development Points (PDP), captured by the South African Council for Educators (SACE).
- The DBE's provincial and district officials should support cluster lead teacher programmes so that they become skilled Life Orientation facilitators to empower and train teachers in schools. These trainings and qualifications should be part of professional development for teachers which is aimed at strengthening and improving teachers' content knowledge, competency and proficiency in Life Orientation.
- Subject committee meetings and training working sessions should be held after contact time in the afternoons so that no contact time must be lost. It is further recommended that these sessions can also happen over weekends and teachers can be compensated with time off [leaving school early] during certain days. This might increase the level of motivation of teachers as many of them seem to be experiencing burnout as a result of lengthy training hours.

To overcome challenges that teachers face in applying GI as a teaching approach in the LO classroom, the following recommendation are offered:

Recommendation 6: Overcoming Challenges

Before they start working with task teams, learners should be introduced to the roles and responsibilities aligned with group work, taking into account how they should perform and how they should behave.

- Groups should be encouraged to take responsibility for their performance and that every individual learner equally has the responsibility to meaningfully contributed to the success of the group.

- Reasonable supervision should be practiced over learning groups because group members can display an attitude of dominance or learners will shy away or be side-lined. Teachers must be able to instil practices where the much stronger and more confident learners take responsibility to lead the process in the groups and to make sure that the shy learners are involve in the learning process.

Recommendation 7: Teacher well-being

DBE should attend to the psycho-social needs of teachers as they are already exposed to overcrowded classes and have to deal with ill-disciplined learners. The wellness of teachers should be monitored regularly and teachers should be given the platform to raise their concerns to discuss all matters that impact on their teaching and learning.

6.3.3 Recommendations for Future Research

Recommendation 8 - This research has explored how group investigation as a cooperative teaching approach to teach Life Orientation in secondary schools in the De Aar region. The following aspects are recommended for further study and research for the implementation of the strategy in secondary schools.

- A participatory action research study can be employed for the researcher to have first-hand experience and insight into how learners experience this teaching approach in the Life Orientation classroom.
- An investigation into how teachers implement this teaching approach in Life Orientation across the schools in the Northern Cape Province in South Africa would enrich the body of knowledge of Life Orientation and would add a valuable contribution to the development of strategies for the successful implementation of Life Orientation.
- This study could also be extended to schools which have homogeneous groups of learners where a comparison between the different sexes can be established.

- Follow-up studies on the value of specific topics in Life Orientation, such as Study Skills, that will impact on the performance of learners throughout their secondary school life and life after school [post-schooling].
- Following on the implementation of CAPS, a follow-up study can be done in relation to the status of the content knowledge that novice teachers have and how they interpret the content. This will contribute to the body of knowledge and will put the knowledge levels of longer serving teachers and novice teacher into perspective.
- This study only tested one cooperative learning strategy, group investigation (GI). Further studies could be done comparing GI instruction with other types of cooperative learning (CL) strategies with high schools.

6.4 CONTRIBUTION OF THE STUDY

This study contributed to the body of theory and knowledge of Life Orientation in relation to group investigation as a cooperative reaching and learning approach. Group investigation as a teaching and learning approach is considered suitable to be implemented in the Life Orientation classrooms as it plays a major role in the development of new knowledge as well as the development of vital skills. Assessment activities like investigations and research projects are well integrated in group investigation as they allow for participants to enhance their own understanding of their experiences, particularly with large class sizes, overcrowded culturally diverse classrooms and mixed levels of learner ability.

Additionally, with regards to social cohesion, learners learn to respect that they become interdependent on each other and that they developed mutual respect for learners of other races and social classes. The effectiveness of group members towards the common group goal depends on how productive and efficient they can work together as a group. Therefore, learners are consistently encouraged and motivated to engage each other with appropriate behaviour.

Lastly, the whole cooperative learning experience focuses on group effort which depends on members helping each other to learn and where the collaborative mode is dominant. Learners may realise that if their efforts are contributing to their

achievements, they will actively ensure that they benefit from their own and groups' potential.

6.5 LIMITATIONS OF THIS STUDY

This study was conducted in the Pixley Ka Seme district with over 25 secondary schools, and only 7 schools from the district's high and combined secondary schools participated. Ten schools were selected but three withdrew from the study. The researcher's discretion was used when selecting the research participants and those selected had the necessary teaching experience and information required to answer the research questions. Two teachers per school were sampled, one for teaching and one as a peer observer, and they did not necessarily represent the views of the entire school.

The findings of this study are based on the responses of the seven Grade 10 Life Orientation teachers, 56 Grade 10 learners who were interviewed and 280 learners who were observed in the seven secondary schools. The research approach used in this study was that of a mixed-method approach which was conducted in the Pixle Ka Seme District in the Northern Cape Province. Given the fact that the study adopted a mixed-method approach and had a relatively small number of participants, its findings cannot be generalised to all Grade 10 classrooms in the province or other parts of the country.

Teacher interviews and observations should have started at the beginning of the third quarter since the Grade 10 learners were not writing a formal examination. Although there was enough time for them to finish, not all of them could finish in time and some had to continue in the fourth [last] quarter.

Teachers and learners were not trained in the purpose of and implementation of group investigation, but could have attended information sessions and watched the many videos available on teaching methods to assist them in implementing group investigation. However, they were not really positive about being observed and interviewed on this teaching approach.

Finally, Life Orientation contact time is only scheduled for two to three periods per week [2 hours], depending on the timetabling cycle of the school. Sometimes these two periods were all on one day and if that period is missed for some reason or another, the teacher only sees those learners the following week.

6.6 CONCLUSION

The purpose of this research was to explore the extent to which teachers make use of group investigation as a teaching approach for Life Orientation in the selected secondary schools in the Northern Cape Province in South Africa and to recommend strategies to enhance secondary teachers' proficiency regarding the use of group investigation as a teaching approach in Life Orientation. The adoption of a mixed-methods research approach in this study contributed greatly in the collection of the rich descriptive data which shed light on the research questions.

This study revealed that teachers had undergone training on Life Orientation CAPS, which was introduced over a period of three years. It was evident that novice teachers and teachers who are quite new in teaching, showed a lack in training and as a result, struggle with the interpretation and application of the subject matter. It emerged that teachers have a good sound understanding of various teaching strategies and could use these effectively in the teaching and learning process in the Life Orientation classrooms. The study further revealed that teachers understood cooperative learning, even though they had never trained on how to employ group investigation as a cooperative teaching approach in the classroom. Furthermore, the study revealed that Life Orientation teachers' content and pedagogical content knowledge ensures teacher expertise, presentation skills and positively influences learner achievement.

Lastly, this study revealed that even though implementing group investigation as a cooperative learning approach in Life Orientation posed challenges that may hinder the primary task of teachers, the effectiveness of group investigation was evident in the increase of learner activeness and participation as well as the acquiring and development of critical learning skills.

Life Orientation is the study of the self in relation to others and to society. It addresses skills, knowledge, and values about the self, the environment, responsible citizenship, a healthy and productive life, social engagement, recreation and physical activity, careers and career choices. These include opportunities to engage in the development and practice of a variety of life skills to solve problems, to make informed decisions and choices and to take appropriate actions to live meaningfully and successfully in a rapidly changing society. It not only focuses on knowledge, but also emphasises the importance of the application of skills and values in real-life situations, participation in physical activity, community organisations and initiatives (DBE, 2011a:8).

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APPENDICES

Appendix A1: Ethical clearance



UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

Date: 2019/11/13

Ref: **2019/11/13/41003276/08/AM**

Dear Mr AC Seherrie

Name: Mr AC Seherrie

Student No.: 41003276

Decision: Ethics Approval from
2019/11/13 to 2024/11/13

Researcher(s): Name: Mr AC Seherrie
E-mail address: aloysiuscseherrie@gmail.com
Telephone: 072871442

Supervisor(s): Name: Dr AS Mawela
E-mail address: mawelas@unisa.ac.za
Telephone: 012 429 4381

Title of research:

Group Investigation: A teaching approach for Life Orientation in selected Northern Cape secondary schools

Qualification: PhD in Curriculum and Instructional Studies

Thank you for the application for research ethics clearance by the UNISA College of Education Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period 2019/11/13 to 2024/11/13.

*The **low risk** application was reviewed by the Ethics Review Committee on 2019/11/13 in compliance with the UNISA Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.*

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the UNISA College of Education Ethics Review Committee.



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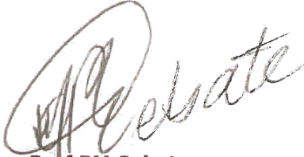
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
7. No field work activities may continue after the expiry date **2024/11/13**. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

*The reference number **2019/11/13/41003276/08/AM** should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Kind regards,


Prof AT Motlhabane
CHAIRPERSON: CEDU RERC
motlhat@unisa.ac.za


Prof PM Sebate
ACTING EXECUTIVE DEAN
Sebatpm@unisa.ac.za

Approved - decision template – updated 16 Feb 2017

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Appendix A2: Proof of registration



2106

SEHERRIE A C MR
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7000

STUDENT NUMBER : 41083276
ENQUIRIES TEL : 0861670411
FAX : (012)429-4150
eMAIL : mandd@unisa.ac.za

2020-04-20

Dear Student

I hereby confirm that you have been registered for the current academic year as follows:

Proposed Qualification: PHD (EDUCATION) (90019)

CODE	PAPER	S NAME OF STUDY UNIT	NQF crdts	LANG.	PROVISIONAL EXAMINATION	
					EXAM.DATE	CENTRE(PLACE)
Study units registered without formal exams:						
@ TFPCU01		PHD - Education (Curriculum Studies)	**	E		
TFPCU01		PHD - Education (Curriculum Studies)	**	E		
@ Exam transferred from previous academic year						

You are referred to the "MyRegistration" brochure regarding fees that are forfeited on cancellation of any study units.

To avoid cancellation of your registration or examination entry and forfeiting your minimum initial payment, you must submit the following to the Registrar (Academic) by return of mail:

214 A copy of your identity document, passport or birth certificate reflecting your full names and date of birth.

Your attention is drawn to University rules and regulations (www.unisa.ac.za/register).

Please note the new requirements for reregistration and the number of credits per year which state that students registered for the first time from 2013, must complete 36 NQF credits in the first year of study, and thereafter must complete 48 NQF credits per year.

Students registered for the MBA, MBL and DBL degrees must visit the SBL's ESOnLine for study material and other important information.

Readmission rules for Honours: Note that in terms of the Unisa Admission Policy academic activity must be demonstrated to the satisfaction of the University during each year of study. If you fail to meet this requirement in the first year of study, you will be admitted to another year of study. After a second year of not demonstrating academic activity to the satisfaction of the University, you will not be re-admitted, except with the express approval of the Executive Dean of the College in which you are registered. Note too, that this study programme must be completed within three years. Non-compliance will result in your academic exclusion, and you will therefore not be allowed to re-register for a qualification at the same level on the National Qualifications Framework in the same College for a period of five years after such exclusion, after which you will have to re-apply for admission to any such qualification.

Readmission rules for M&D: Note that in terms of the Unisa Admission Policy, a candidate must complete a Master's qualification within three years. Under exceptional circumstances and on recommendation of the Executive Dean, a candidate may be allowed an extra (fourth) year to complete the qualification. For a Doctoral degree, a candidate must complete the study programme within six years. Under exceptional circumstances, and on recommendation by the Executive Dean, a candidate may be allowed an extra (seventh) year to complete the qualification.

Your study material is available on www.my.unisa.ac.za, as no printed matter will be made available for the research proposal module.

Study material can be accessed on the Unisa website. You must register on MyUnisa (<https://my.unisa.ac.za/portal/>) for this purpose. You are also reminded to activate your myLife email address since all electronic correspondence will be sent to this email address.

BALANCE ON STUDY ACCOUNT: 0.00

Yours faithfully,

Dr F Goolam
Registrar

0108 0 00 0



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Appendix B: Application to the NCDoE



LETTER OF APPLICATION FOR PERMISSION TO CONDUCT RESEARCH IN PIXLEY KA SEME DISTRICT IN NCDoE

Title of research: Group Investigation: A teaching approach for Life Orientation in selected Northern Cape secondary schools.

8 August 2019

Ms L.R Mdekazi
Acting District Director
Northern Cape Department of Education
Pixley Ka Seme District Office
053 632 9200 lmdekazi008@gmail.com

Dear Ms Mdekazi

I, Aloysius Claudian Seherrie am doing research under supervision of Dr A.S Mawela, a senior lecturer, in the Department of Curriculum and Instructional Studies towards a PhD at the University of South Africa. We are inviting you to participate in a study entitled: **Group Investigation: A teaching approach for Life Orientation in selected Northern Cape secondary schools** during the third and fourth quarter of the year 2019.

The overarching aims of this study are to exploring the use of group investigation as a teaching approach for life orientation in selected -secondary schools in the Northern Cape Province. It also aims at identifying strategies/ framework to empower teachers' proficiency regarding the employment of group investigation as a cooperative teaching-learning approach in life orientation of secondary teachers. This study will assist the South African Department of Basic Education on cultivating appropriate professional development in planning group investigation as a cooperative teaching and learning approach of life orientation in secondary schools. The data can also inform further research needs as far as group investigation as a cooperative teaching and learning approach for life orientation in secondary is concerned. Pixley Ka Seme District has been selected as I believe they are offering Life Orientation at your various secondary schools, which is the focus of my study.

The study will entail Life Orientation teachers from each secondary school. I will also request to analyse the following documents: Curriculum and Assessment Policy Statements (CAPS), Life Orientation subject policy, Curriculum Coverage reports, Subject Improvement Plan (SIP),

Teacher's master files, Learners' Portfolios, Learners' workbooks, Programme of Assessment, Annual Teaching Plan, Lesson Preparation and Departmental Circulars. I wish to interview Life Orientation teachers teaching Grade ten and forty learners i.e. five groups of eight learners per group. This study will involve video camera recording as an instrument for observation of participants, open-ended questions will be asked during the interviews. The interviews are expected to take 30 to 45 minutes per participant. The researcher will also ask permission from the learners, teachers and parents to take photos and to use a video recorder during the study.

Being part of this study is voluntary and under no obligation will the participants be forced to participate. If participants decide to take part, they will be given consent forms. The participants are free to withdraw at any time and without giving reasons. There will be no reimbursement for participation.

I would like to assure you of the confidentiality of the research project and that the anonymity of the learners would be protected. The names will not be recorded and no one will be able to connect them to answers. The answers will be given fictitious code numbers or pseudonyms will be referred to in the data, any publications, or other research reporting methods such as conference proceedings. The answers may be reviewed by people responsible for making sure that the report is done properly including the transcriber, external coder, members of the Research Ethics Committee. There are no foreseeable risks for taking part in this study. There will be no reimbursement or any incentives for participation in the research.

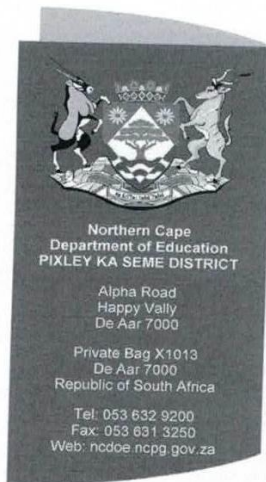
If you would like to be informed about the final research findings, please contact Mr A.C Seherrie on 0728714423 or aloyuscsseherrie@gmail.com. These findings are accessible for publication after completion of this study. Should you require any further information or want to contact the researcher about any aspect of this study, please contact the above researcher. Should you have concerns about the way in which the research has been conducted, you may contact my supervisor, Dr A.S Mawela at 012 429 4381 or mawelas@unisa.ac.za . Alternatively contact the Research Ethics Committee chairperson Dr M Claassens at mcddc@netactive.co.za of the College of Education Research Ethics Committee.

Thank you in advance

Yours sincerely

Aloysius Claudian Seherrie

Appendix C: Approval from the NCDoE



DEPARTMENT OF EDUCATION

Enquiries : L Mdekazi
Contact No: 053 632 9201 / 082 0429 715
Date : 27 September 2019

Mr. AC Seherrie
64 Vermeulen Street
De Aar
7000

Dear Mr Seherrie

RE: PERMISSION TO CONDUCT RESEARCH


You are hereby granted permission to conduct your research at ten high schools in the Pixley ka Seme District as part of your PhD studies.

Permission is granted on the following conditions;

1. That the normal academic program of the schools which will form part of the research not be compromised in any way.
2. That consent be sought from the schools, educators and learners who will form part of your research
3. That there will be no cost implications to the department and the schools

Wishing you all the best with your studies

Yours truly


.....
Lulama Ruth Mdekazi
District Director (Acting)



Appendix D: Request permission to conduct research at the secondary schools



REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT ORION HIGH SCHOOL

Title of research: Group Investigation: A teaching approach for Life Orientation in selected Northern Cape secondary schools.

8 August 2019

Mr E. Maclean
Orion High School
Northern Cape Department of Education
053 631 3237 hskoolorion@yahoo.com

Dear Mr Maclean

I, Aloysius Claudian Seherrie, am doing research under supervision of Dr A.S Mawela, a senior lecturer, in the Department of Curriculum and Instructional Studies towards a PhD at the University of South Africa. We are inviting you to participate in a study entitled: **Group Investigation: A teaching approach for Life Orientation in selected Northern Cape secondary schools** during the third and fourth quarter of the year 2019.

The overarching aims of this study are to exploring the use of group investigation as a teaching approach for life orientation in selected -secondary schools in the Northern Cape Province. It also aims at identifying strategies/ framework to empower teachers' proficiency regarding the employment of group investigation as a cooperative teaching-learning approach in life orientation of secondary teachers. This study will assist the South African Department of Basic Education on cultivating appropriate professional development in planning group investigation as a cooperative teaching and learning approach of life orientation in secondary schools. The data can also inform further research needs as far as group investigation as a cooperative teaching and learning approach for life orientation in secondary is concerned. Orion High School has been selected as I believe they are offering Life Orientation at your school, which is the focus of my study. The study will entail Life Orientation teachers from secondary schools. I will also request to analyse the following documents: Curriculum and Assessment Policy Statements (CAPS), Life Orientation subject policy, Curriculum Coverage reports, Subject Improvement Plan (SIP), Teacher's master files, Learners' Portfolios, Learners' workbooks, Programme of Assessment, Annual Teaching Plan, Lesson Preparation and Departmental Circulars.

I wish to interview Life Orientation teachers teaching Grade ten and forty learners i.e. five groups of six to eight learners per group. This study will involve video camera recording as an instrument for observation of participants, open-ended questions will be asked during the interviews. The interviews are expected to take 30 to 45 minutes per participant. The researcher will also ask permission from the learners, teachers and parents to take photos and to use a video recorder during the study.

Being part of this study is voluntary and under no obligation will the participants be forced to participate. If participants decide to take part, they will be given consent forms. The participants are free to withdraw at any time and without giving reasons. There will be no reimbursement for participation.

I would like to assure you of the confidentiality of the research project and that the anonymity of the learners would be protected. The names will not be recorded and no one will be able to connect them to answers. The answers will be given fictitious code numbers or pseudonyms will be referred to in the data, any publications, or other research reporting methods such as conference proceedings. The answers may be reviewed by people responsible for making sure that the report is done properly including the transcriber, external coder, members of the Research Ethics Committee. There are no foreseeable risks for taking part in this study. There will be no reimbursement or any incentives for participation in the research.

If you would like to be informed about the final research findings, please contact Mr A.C Seherrie on 0728714423 or aloyususcseherrie@gmail.com. These findings are accessible for publication after completion of this study.

Should you require any further information or want to contact the researcher about any aspect of this study, please contact the above researcher. Should you have concerns about the way in which the research has been conducted, you may contact my supervisor, Dr A.S Mawela at 012 429 4381 or mawelas@unisa.ac.za .

Alternatively contact the Research Ethics Committee chairperson Dr M Claassens at mcdtc@netactive.co.za of the College of Education Research Ethics Committee.

Thank you in advance

Yours sincerely

Aloysius Claudian Seherrie

Appendix E: Approval from the secondary schools to conduct research

HOËRSKOOLO ORION

Skoolhoof: Edmund Maclean
Headmaster:



ORION HIGH SCHOOL

Posbus / PO Box 268
De Aar 7000
Tel: (053) 631-3237
Fax: (053) 631-0402
E-pos / E-mail: hskoolorion@yahoo.com

HEIL DIE LESER

Insake: Toestemming om navorsing

Hiermee word toestemming verleen dat mnr Aloysius Claudian Seherrie sy prakties / navorsing by Hoërskool Orion kan voltooi.

Die uwe


E MACLEAN

DEPARTEMENT VAN ONDERWYS
NOORDKAAP
HOËRSKOOLO ORION
POSBUS 268, DE AAR 7000
TEL: 053 631 3237, FAX: 053 631 0402
DEPARTMENT OF EDUCATION
NORTHERN CAPE

Appendix F: Letter to the prospective teacher participants



64 Vermeulen Street
De Aar
7000
8 August 2019

Dear Prospective Participant

I, Aloysius Claudian Seherrie, am doing research under supervision of Dr A.S Mawela, a senior lecturer, in the Department of Curriculum and Instructional Studies towards a PhD at the University of South Africa. We are inviting you to participate in a study entitled: **Group Investigation: A teaching approach for Life Orientation in selected Northern Cape secondary schools** during the third and fourth quarter of the year 2019.

The overarching aims of this study are to exploring the use of group investigation as a teaching approach for life orientation in selected -secondary schools in the Northern Cape Province. It also aims at identifying strategies/ framework to empower teachers' proficiency regarding the employment of group investigation as a cooperative teaching- learning approach in life orientation of secondary teachers.

This study will assist the South African Department of Basic Education on cultivating appropriate professional development in planning group investigation as a cooperative teaching and learning approach of life orientation in secondary schools. The data can also inform further research needs as far as group investigation as a cooperative teaching and learning approach for life orientation in secondary is concerned.

The study will entail Life Orientation teachers from 10 secondary schools. I will also request to analyse the following documents: Curriculum and Assessment Policy Statements (CAPS), Life Orientation subject policy, Curriculum Coverage reports, Subject Improvement Plan (SIP), Teacher's master files, Learners' Portfolios, Learners' workbooks, Programme of Assessment, Annual Teaching Plan, Lesson Preparation and Departmental Circulars.

I wish to interview Life Orientation teachers teaching Grade ten and forty learners i.e. five groups of eight learners per group.

This study will involve video camera recording as an instrument for observation of participants, open-ended questions will be asked during the interviews. The interviews are expected to take 30 to 45 minutes per participant. The researcher will also ask permission from the learners, teachers and parents to use a video recorder as well as a tape recorder during the study.

Being part of this study is voluntary and under no obligation will the participants be forced to participate. If participants decide to take part, they will be given consent forms.

The participants are free to withdraw at any time and without giving reasons. There will be no reimbursement for participation.

I would like to assure you of the confidentiality of the research project and that the anonymity of the learners would be protected. The names will not be recorded and no one will be able to connect them to answers. The answers will be given fictitious code numbers or pseudonyms will be referred to in the data, any publications, or other research reporting methods such as conference proceedings. The answers may be reviewed by people responsible for making sure that the report is done properly including the transcriber, external coder, members of the Research Ethics Committee. There are no foreseeable risks for taking part in this study. There will be no reimbursement or any incentives for participation in the research.

If you would like to be informed about the final research findings, please contact Mr A.C Seherrie on 0728714423 or aloysiuscseherrie@gmail.com. These findings are accessible for publication after completion of this study.

Should you require any further information or want to contact the researcher about any aspect of this study, please contact the above researcher.

Should you have concerns about the way in which the research has been conducted, you may contact my supervisor, Dr A.S Mawela at 012 429 4381 or mawelas@unisa.ac.za .

Alternatively contact the Research Ethics Committee chairperson Dr M Claassens at mcdtc@netactive.co.za of the College of Education Research Ethics Committee.

Thank you in advance

Yours sincerely

Aloysius Claudian Seherrie

Participant Permission Acknowledgement (Signature): _____

Date: _____

Appendix G: Consent to participate in the study



CONSENT TO PARTICIPATE IN THE STUDY: Group Investigation: A teaching approach for Life Orientation in selected Northern Cape secondary schools.

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have sufficient opportunity to ask questions and am prepared to participate in the study.

I understand my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the interviews and observations.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname (please print) _____

Participant Signature

Date :

Researcher's Name & Surname (please print) _____

Researcher's Signature: _____

Date: _____

Appendix H: Letter requesting assent from learners at Orion High School



64 Vermeulen Street
De Aar
7000
8 August 2019

Title of study: Group Investigation: A teaching approach for Life Orientation in selected Northern Cape secondary schools.

Dear Prospective Participant

I am doing a study on “Group Investigation: A teaching approach for Life Orientation in selected Northern Cape secondary schools” as part of my studies at the University of South Africa. Your principal has given me permission to do this study in your school. I would like to invite you to be a very special part of my study. I am doing this study so that I can find ways that your teachers can use to make learning and teaching much better. This will help you and many other learners of your age in different schools.

This letter is to explain to you what I would like you to do. There may be some words you do not know in this letter. You may ask me or any other adult to explain any of these words that you do not know or understand. You may take a copy of this letter home to think about my invitation and talk to your parents about this before you decide if you want to be in this study.

I would like to ask permission to use a video recorder as well as a tape recorder during the study. I would also like to ask you questions (interview you) about how your experiences in the classroom while your teacher was teaching. I will only interview eight learners as a group, chosen from the two classes at your school. A video camera will be used as an instrument for observations. These group interviews will take no longer than 45 minutes.

I will write a report on the study but I will not use your name in the report or saying anything that will let other people know who you are. You do not have to be part of this study if you don't want to take part. If you choose to be in the study, you may stop taking part at any time. You may tell me if you do not wish to answer any of my questions. No one will blame or criticise

you. When I am finish with my study, I shall return to your school to give a short talk about some of the helpful and interesting things I found out in my study. I shall invite you to come and listen to my talk.

If you decide to be part of my study, you will be asked to sign the form on the next page. If you have any other questions about this study, you can talk to me or you can have your parent or another adult call me at: 072 871 4423. Do not sign the form until you have all your questions answered and understand what I would like you to do.

Researcher: AC Seherrie

Phone number: 0728714423

Do not sign the assent form if you have any questions. Ask your questions first and ensure that someone answers those questions.

Appendix I: Written assent from learners of the secondary schools



I have read this letter which asks me to be part of a study at my school. I have understood the information about my study and I know what I will be asked to do. I am willing to be in the study.

.....
Learner's name (print): Learner's signature Date:

.....
Witness's name (print): Witness's s signature Date:

(The witness is over 18 years old and present when signed.)

.....
Parent/guardian's name (print): Parent/guardian's signature Date:

.....
Researcher's name (print): Researcher's signature Date:

Appendix J: Letter requesting parental consent

UNISA 
college of
education

64 Vermeulen Street
De Aar
7000
8 August 2019

Dear Parent

Your child is invited to participate in a study entitled, ‘Group Investigation: A teaching approach for Life Orientation in selected Northern Cape secondary schools’. I am undertaking this study as part of my Ph.D. research at the University of South Africa. The purpose of the study is to explore the use of group investigation as a teaching approach for life orientation in selected secondary schools in the Northern Cape Province. I am asking permission to include your child in this study because it will be to the benefit of your child and the school as a whole. I expected to have 399 other children participating in the study.

If you allow your child to participate, I shall request him/her to:

- Take part in an interview – eight learners from two Grade 10 classes will be selected based on their grade nine results. Open-ended questions will be asked during the group interviews. The interviews are expected to take 30 to 45 minutes per group. Interviews will be held after school hours which will be from 15:00. I would like to ask questions about their experiences in the classroom while the teacher was teaching.
- Be video and tape recorded – a video camera and a tape recorder will be used as instruments for observation. The video camera will be used to observe learners on how they take part in the group investigation activities. The tape recorder will be used to record the conversations during the group interviews. These recordings will be accessible to the researcher for analysis purposes and to the supervisor for assessment purposes. No one else will have access to these. The purpose was for the researcher to have time to thoroughly observe the proceedings in the Life Orientation STAD classes exclusively during group activities.

- Learners will use their books – learners will complete written activities (group work and individually) in their books. The researcher will analyse these books after learners have completed their exercises. No one else will have access to these.

Any information that is obtained in connection with this study can be identified with your child will remain confidential and will only be disclosed with your permission. His or her responses will not be linked to his or her name or your name or the school's name in any written or verbal report based on this study. Such a report will be used for research purposes only.

There are no foreseeable risks to your child by participating in this study. Your child will receive no direct benefit from participating in this study; however, the possible benefits to education are that teachers can alternate their teaching strategies in the classroom and can apply these methods in various other subjects of their choice. Neither your child nor you will receive any type of payment for participating in this study.

Your child's participation in this study is voluntary. Your child may decline to participate or to withdraw from participation at any time. Withdrawal or refusal to participate will not affect him/her in any way. Similarly, you can agree to allow your child to be in the study now and change your mind later without any penalty.

This study will take place during regular classroom activities with prior approval of the school and your child's teacher. However, if you do not want your child to participate, any alternative activity will be available.

In addition to your permission, your child must agree to participate in the study and you and your child will also be asked to sign the assent form which accompanies this letter. If your child does not wish to participate in the study, he or she will not be included and will be no penalty. The information gathered from the study and your child's participation in the study will be stored securely on a password locked computer in my locked office for five years after the study. Thereafter, records will be erased.

If you have questions about this study please ask me or my study supervisor, Dr A.S Mawela, a senior lecturer in the Department of Curriculum and Instructional Studies, College of Education, University of South Africa. My contact number is 072 871 4423 and my e-mail is aloyuscseherrie@gmail.com. The e-mail of my supervisor is mawelas@unisa.ac.za . Permission for this study has already been given by the chairperson Dr M Claassens and the Ethics Committee of the College of Education, UNISA.

You are making a decision about allowing your child to participate in this study. Your signature below indicates that you have read the information provide above and have decided to allow him or her to participate in the study. You may keep a copy of this letter.

Name of the child:

Sincerely

.....

Parent/guardian's name (print): Parent/guardian's signature Date:

.....

Researcher's name (print): Researcher's signature Date:

Appendix K: Confidentiality agreement with the teacher assistant



I acknowledge that the information shared during this study, especially during the video and tape recording of the interviews, classroom observations or any other form of data collection may be used by Aloysius Claudian Seherrie, for research purposes. I am aware that I will be responsible for all digital (video) recordings and grant consent to do these recordings, provided that my privacy will be protected. I undertake not to divulge any information that is shared during the course of this study to any person outside the study in order to maintain confidentiality.

Teacher Assistant's Name (Please print):

Teacher Assistant's Signature:

Researcher's Name: (Please print):

Researcher's Signature:

Appendix L: Interview schedule with Life Orientation teachers



The main purpose of this interview is to explore to what extent do teachers make use of group investigation (GI) as a teaching approach for life orientation in selected secondary schools in the Northern Cape Province?

1. What training is received by Life Orientation teachers in Group Investigation as a cooperative learning approach and how do these teachers use this approach in teaching the subject in De Aar secondary schools?

1.1 What teaching strategy or strategies do you normally adopt or use when teaching Life Orientation and how did you perceive the effectiveness of this strategy?

Probing questions

1.1.1 What is the reason behind choosing that strategy or strategies?

1.1.2 How do you apply the strategies mentioned and elaborate briefly on the level of difficulty of it?

1.1.3 Motivate the impact the strategy has on teaching and learning.

1.2 Have you received training in the implementation of CAPS in Life Orientation and what is your opinion on the effectiveness of this training?

Probing questions

1.2.1 Describe the training (where and by whom) and experience that you have had on CAPS?

1.2.2 What was the duration of this training?

1.2.3 How adaptable and flexible do you feel the CAPS curriculum is with regards to teaching approaches and delivery of content?

1.2.4 What benefits came with the training you received on CAPS?

1.2.5 How were the teachers who missed out training accommodated?

1.2 Have you been trained to use the cooperative learning approach?

Do you feel that you have received adequate training for your position as LO teacher?

Probing questions

- 1.2.1 Where did you receive your training and what was the duration thereof?
- 1.2.2 Would you have liked to have more training/more specialised training? If so, what type of training?
- 1.2.3 How adequate do you feel is the training that you have received for your position as Life Orientation teacher?
- 1.3.4 What were the benefits of implementing cooperative learning strategies in your teaching?

1.3 Discuss your preparation to use Group Investigation activities?

Give an example

Probe questions

- 1.4.1 Explain your perceptions of the strengths and advantages the use of GI brought to your teaching?
- 1.4.2 Why would you continue to use the GI approach?
- 1.4.3 Deducing from your teaching experience, how much influence do you think GI approach might have on learners' achievement?
- 1.4.4 How can you explain your knowledge and understanding of group investigation as a teaching approach in life orientation?
- 1.4.5 What is your understanding of teacher knowledge and teacher pedagogical knowledge?
- 1.4.6 Lastly, how do you integrate your pedagogical knowledge and your experience as a Life Orientation teacher into your teaching using group investigation as a teaching approach?

2. What challenges are faced by LO teachers in planning and applying GI as a teaching approach and how do teachers overcome the challenge they face?

2.1 What major challenges / problems do you face when you use GI approach to teach Life Orientation?

Probe questions

- 2.1.1 Describe your views and /or experiences about the challenges you encounter in teaching Life Orientation that might regard as the hindrances during the process of teaching and learning of Life orientation?
- 2.1.2 What steps have you taken to manage, overcome these challenges?

Appendix M: Group discussion schedule with Life Orientation learners



GROUP DISCUSSIONS

1. Group processing

- 1.1 Tell me about your experiences in your group?
- 1.2 In your opinion, describe the performance of your group?
- 1.3 How have your interactions in class with your peers changed over the course of this period?

2. Learners perception on working in groups

- 2.1 Explain your expectations that you have at the beginning with cooperative group work?
- 2.2 Are any of these expectations met or not? Please explain?
- 2.3 How is cooperative group work different to working individually?
- 2.4 Describe your interactions with your fellow group members?
- 2.5 What have you learnt from your team members?

3. Learner preparation

- 3.1 How will you contribute to the group?
- 3.2 How will you help those who do not understand the work in order to improve their performance?
- 3.3 If you have noticed a difference in behaviour among your group members, why do you think there was a difference?
- 3.4 What will you do differently in order to lead your group to success?

Appendix N: Learner classroom observation schedule



1. Behaviour

- 1.1 How do learners behave within their groups?
- 1.2 Describe any form of positive or negative behaviour that you observed?
- 1.3 How was the motivation level of the group when doing this group investigation task throughout the project duration?
- 1.4 How do learners respond to authority?

2. Social skills

- 2.1 Explain the cooperation level among the groups?
- 2.2 Was there any interaction among group members? If so, list reasons for these interactions?
- 2.3 Elaborate on the following:
 - 2.3.1 *Communication*
 - 2.3.2 *Listening*
 - 2.3.3 *Problem solving*
 - 2.3.4 *Work independently*
 - 2.3.5 *Resolve conflict*
- 2.4 How do learners share knowledge and resources in their groups?
- 2.5 Describe how learners are aware of the role they have to play in their groups?

3. Working skills

- 3.1 Explain the type of cooperation learners made to their groups?
- 3.2 How groups are held responsible for individual learning?
- 3.3 How are groups accountable for the work and for the achievement of each member of the group?
- 3.4 Tell us more how groups respond to the timeframes on a task?
- 3.5 Discuss how groups focus on a classroom reward system?

Appendix O: Teacher classroom checklist



The using of a Likert scale (Observation schedule, Appendix O) focussed on the following: lesson presentation, teaching methods, the involvement of learners, teachers' role, life orientation classroom environment, assessment activities, the use of teaching resources and learners expanded opportunities.

Please select the number on the scale which corresponds to your answer.

1= Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly Agree

PLANNING OF THE LESSON

1. Layout / planning of the lesson plan is clear, logical, sequential and developmental	1	2	3	4	5
2. Aims and objectives are realistic	1	2	3	4	5
3. Phases of the lesson are indicated	1	2	3	4	5
4. Explanation of phases are given	1	2	3	4	5
5. Lessons are relevant by connecting the curriculum to learners' lives	1	2	3	4	5

LESSON PRESENTATION

1. Introduction is interesting and attracts attention	1	2	3	4	5
2. Emphasis on usefulness of objectives of the lesson	1	2	3	4	5
3. Linking with prior knowledge	1	2	3	4	5
4. Learners discover new content	1	2	3	4	5
5. Learners demonstrate a high level of motivation and enthusiasm	1	2	3	4	5
6. Clear sense of purpose in achieving the outcomes of the topic	1	2	3	4	5

TEACHING METHODS

1. Cooperative teaching model is used	1	2	3	4	5
2. Method is effectively applied	1	2	3	4	5
3. Explain relevant material and skills	1	2	3	4	5
4. Respond constructively to learners concerns	1	2	3	4	5
5. Level of motivation and interaction	1	2	3	4	5

INVOLVEMENT OF LEARNERS

1. Engage in group discussions actively	1	2	3	4	5
2. Show respect to the views of other group members	1	2	3	4	5
3. Participating in decision making process actively during problem-solving	1	2	3	4	5
4. Show eagerness to group work	1	2	3	4	5
5. Restate and summarise what was said	1	2	3	4	5
6. Behave positively	1	2	3	4	5
7. Demonstrate good performance in group work	1	2	3	4	5
8. Accomplish individual responsibilities during group work.	1	2	3	4	5
9. Giving prompt and specific feedback to each other about their actions	1	2	3	4	5

TEACHERS ROLE

1. Provide individual assistance to group members in need	1	2	3	4	5
2. Celebrate other group members when they made big contributions.	1	2	3	4	5
3. Explain the relevant material and skills	1	2	3	4	5
4. Respond to learners' questions and concerns	1	2	3	4	5
5. Good level of teacher-learner motivation and interaction	1	2	3	4	5
6. Plays a facilitation role effectively	1	2	3	4	5
7. Maintain control and order	1	2	3	4	5
8. Management of routine and movement	1	2	3	4	5
9. Inspires learners through own engagement with subject to further reading, activity and involvement outside school hours.	1	2	3	4	5

CLASSROOM ENVIRONMENT

1. Environment support group and / or individual learning	1	2	3	4	5
2. Conducive and stimulating learning environment	1	2	3	4	5
3. Learners work towards specific goals set before them in the class objectives	1	2	3	4	5
4. Atmosphere is non-competitive and motivating	1	2	3	4	5
5. Learners are allowed to make low-risk mistakes	1	2	3	4	5
6. Learners have voice and choice in matters pertain to them	5	1	2	3	4
7. The classroom physical environment responds to learners learning preferences	1	2	3	4	5
8. Arrangement of chairs and tables are suitable to work different group activities	1	2	3	4	5
9. The classroom situation is suitable to allow to move around during some activities	1	2	3	4	5
10. Organisation of learning space encourages questions, exchanging ideas and experiences, cooperative learning	1	2	3	4	5

ASSESSMENT ACTIVITIES

1. Tasks are challenging, important and authentic	1	2	3	4	5
2. Tasks speak to disciplinary knowledge, skills and attitudes	5	1	2	3	4
3. Activities requires group and individual work	1	2	3	4	5
4. Learners are free to ask questions when they want clarity	1	2	3	4	5
5. Assessment techniques cater for learners from diverse backgrounds, with multiple intelligences and learning styles	5	1	2	3	4
6. Activities are appropriate and aligned with CAPS	1	2	3	4	5
7. Evidence of formative assessment	1	2	3	4	5
8. Evidence of summative assessment	1	2	3	4	5
9. Adhere to cognitive demand of Bloom's taxonomy	1	2	3	4	5
10. Records are systematically, efficiently and regularly maintained	1	2	3	4	5

TEACHING RESOURCES

1. Variety of teaching resources are used	1	2	3	4	5
2. Use of black/chalk board, textbooks	1	2	3	4	5
3. Use of power point presentations	1	2	3	4	5
4. Use of data projectors, laptops	1	2	3	4	5
5. Use of interactive whiteboard	1	2	3	4	5
6. Relevant resources are used and updated	1	2	3	4	5

LEARNERS EXPANDED OPPORTUNITIES

1. Differentiated activities that focus on consolidation and application	1	2	3	4	5
2. Application of knowledge and skills	1	2	3	4	5
3. Records easily accessed and provide clear insights into learners' abilities	1	2	3	4	5

Appendix P: Document analysis checklist



Purpose of the rubric: This rubric is designed to evaluate the processes followed by teachers to maintain curriculum management which includes evidence of engagement in the following aspects: master files, planning of the lesson and teachers' notes, assessment records, departmental life orientation circulars, learners' portfolios and learners' exercise books.

	CRITERIA	1	2	3	4
1	Teacher Master File (TMF)	No evidence of the Teacher Master File.	Evidence of the Master File with some of the related policies, i.e. CAPS	Evidence of the Master File with substantial evidence of CAPS document/assessment policy, NSLA, Curriculum Coverage Instrument.	Comprehensive evidence: Master File adheres to all requirements which include: CAPS document/Assessment Policy/Moderation Policy, NSLA document, Curriculum Coverage Instrument, SIP
2	Lesson plans and teacher's notes	No evidence of planning and preparation.	Evidence of planning and preparation. Lesson planning indicates the topics and sub-topics. Is in line with aims and objectives of the lesson.	Good evidence of planning and preparation. Thorough lesson planning which indicates the topics and sub-topics. Is in line with aims and objectives of the lesson.	Exceptional evidence of planning and preparation. Thorough lesson planning which indicates the topics and sub-topics. Is in line with aims and objectives of the lesson.

3	Assessment records	There is no visible evidence of any Assessment programme. No evidence of formative and summative assessment records.	Assessment programme complies with some requirements. Assessment is relevant and addresses some acquired skills and knowledge. Cognitive levels are addressed. Some evidence of formative and summative assessment records.	Good Assessment programme and complies with most requirements. Assessment is relevant and addresses the acquired skills and knowledge. Variety of cognitive levels are addressed. Good evidence of formative and summative assessment records.	Exceptional evidence of assessment programme. Assessment is good and addresses the acquired skills and knowledge. Variety of cognitive levels are addressed. Thorough evidence of formative and summative assessment records.
4	Departmental Life Orientation circulars	No evidence of departmental Life Orientation circulars.	Some Departmental Life Orientation circulars appears. Includes National, Provincial and District circulars.	Current Departmental Life Orientation circulars appears. Includes National, Provincial and District circulars.	Latest and current Departmental Life Orientation circulars appears. Includes National, Provincial and District circulars.
5	Learner Portfolios of Evidence	There is no correlation between the Teachers' File and the Learners' Portfolios. No formal assessment	There is some correlation between the Teachers' File and the Learners' Portfolios. Some evidence of formal assessment	There is adequate correlation between the Teachers' File and the Learners' Portfolios. Most evidence of the required number of formal assessment	There is an exceptional correlation between the Teachers' File and the Learners' Portfolios. Evidence of all required number of formal assessment
6	Learners exercise books / workbooks	There is no evidence of learning and teaching. Learners' activities are not in line with content taught. Books are not controlled by the teacher. There is no evidence of homework. No constructive comments and corrections in learners' books.	Some evidence of learning and teaching available. Learners' activities are in line with some content taught. A few books are controlled by the teacher. Some evidence of homework. Inconsistency of constructive feedback. Evidence of corrections.	Most evidence of learning and teaching available. Learners' activities are mostly in line with content taught. Books are mostly controlled by the teacher. Most evidence of homework. Constructive feedback to learners and corrections are visible.	All evidence of learning and teaching available. Learners' activities are in line with content taught. Exercises reflect a variety of competencies and skills. Good frequency of controlling of books by the teacher. Evidence of homework. Constructive feedback given to learners with an indication of corrections that have been done

Appendix Q: Interview transcripts with Life Orientation teachers

<ul style="list-style-type: none"> ➤ What does the scholarly literature on different teaching and learning approaches of life orientation in South African context entail? ➤ What pedagogical life orientation content knowledge and skills should secondary teachers have in planning group investigation as a cooperative teaching and learning approach? ➤ What are the benefits and challenges of group investigation as a cooperative teaching and learning approach in life orientation? ➤ What are the strategies/framework to improve teacher's proficiency regarding group investigation as a cooperative teaching and learning approach in life orientation?
QUESTIONS
1.1 What teaching strategy or strategies do you normally adopt or use when teaching Life Orientation and how did you perceive the effectiveness of this strategy?
<p>VERIFAH Explaining lesson content, give a summary, give exercises, learners to be actively involved, individually or in groups and cooperative learning. At some exercise they are working together where everyone is participating and involved and come up with one answer from the group. In these groups they try to find solutions to the problems the encounter. What is always nice is when you sometimes use the old way of teaching, because learners will know to learn and they will sit on their desks for the rest of the period without any disruptions. It is not effective and learners do not understand the need of a summary when content is in a textbox.</p> <p>RICHIBOY Cooperative learning, group work, peer tutoring and collaborative learning. Asking learners question that they must answer as a method is one that works well with our learners. Then you can immediately determine what their understanding is and how you can assist them. With this method, you can move from the known to the unknown and it is a good feeling when learners show an understanding of the content. For me. I prefer learners to be active participants in a lesson, that indicates whether they are with you or not. When time is against me, I write the information on the blackboard and the learners must copy it. Explanation will be done later on. You rushed to be on tract with curriculum and to be on the safe side with the management when they do curriculum coverage. This helps you a lot in saving time.</p> <p>UMATHI Before any interaction, I explain to my learners the new content and make sure they understand it by asking questions... when an answer is incorrect, I ask a second learner to respond until the correct response is given. After that I engaged in group discussion, debating, role playing, demonstrations and effective teaching involves everyone. Learners must be able to communicate and be active participants in the groups and to each other or to me and that is why I prefer to ask questions. After group discussions, learners do demonstrations in which they act and other learners like it.</p> <p>CHESCAR Cooperative learning and inquiry-based instruction – learners become more involved. Learners must investigate matters and come up with own conclusions. This is what I call, learners discovered what they want to know and we as teachers can just guide them.</p> <p>PHAKAMA What I normally used is the computer and the chalkboard. The computer is when I present a picture to the learners to make it easier to the learners and the chalkboard is mainly when it is a reading passage. To highlight certain words that is important in the passage. When I prepare myself then I realise that it is difficult for the learners and then I have to decide will it be the chalkboard of the computer. What I have learnt when it is the computer, learners are enjoying it and they grasp it easier as where I go to the chalkboard instead of using the computer. It is more abstract on the chalkboard and they are struggling with it. When they see things they are more acceptable for the new knowledge. Learners are more visualise learners</p> <p>PETRA</p>

Cooperative learning which involves the participation of learner in a small group to interact with each other.

MONWABI

In Life Orientation one can use many forms of strategies teaching Life Orientation. I use role-play as a teaching strategy, sometimes I give them an exercise to search on the internet on their cell phones to look up information.

1.3.1 What is the reason behind choosing that strategy or strategies?

VERIFAH

The socio-economic background of learners plays a big role. Learners can fit into any group very easy and can work together without any obstacles. They do not have any equipment or facilities but it do not distract them from solving problems. When activities need problem-solving, learners tend to share ideas and develop plans together. The same with me and a few of my colleagues, we are trying to assist each other when some of the content falls within your field of specialisation, then we do co-teaching. This approach helps me to have a better understanding on the content that I am not familiar with. We do not have any computers to work on, the computer lab is out of order for a long time and there is only one or two computers in a working condition. But we have to make it work.

RICHIBOY

Learners understand each other better and they can easily explain things on their own level to one another. They enjoy learning in such groups which is small with only a few learners and they are comfortable and tolerant with each other. Group members learns to accept others opinions and viewpoints. This to me is a matter of showing respect to others when they are expressing themselves. They would like to argue with each other at certain times, but I encouraged them that it has to be in a positive light and not to show that one is better than the other. It helps my students to understand how their schooling is and how to live with each other. Teaching and learning is difficult with these limited resources while the buildings are very old and risky.

UMATHI

To ensure mass participation although resources are limited and even the infrastructure... they like to talk in small groups and they experience a bit of trust among themselves, like helping each other in a polite way. Sometimes I just use the question and answer method or sometimes I just present my lesson and after all ask the questions for clarity and understanding. When they are participating and actively involve then I know that learning is happening. Especially in discussions, I have observed that they are speaking and listening to their friends and they are trying to solve the problems without asking the teacher. Demonstrations allow them to learn while they are watching and it is easier for them to write or give information on what they have seen. This make it easier for learners to write essays and using their imagination.

CHESCAR

Cooperative learning – learners working together as group and learning to understand each other. Inquiry-based learning – Questions that is thought-provoking which inspire learners to think for themselves.

PETRA

It fits the need of the classes conducted.

PHAKAMA

Our schools in the rural areas do not attract as much as possible teachers to it. Teachers are scared to teach at our school because of the label the school has. The computer or laptop is much more new to the learners and that is why they are so fascinated about the presentations. PowerPoint presentations and playing some visual stories to them are so interesting and motivating them. I use it not as in everyday but more or less regularly because our electricity is a big problem. Learners interact quite easy with the questions and content as well as their friends.

MONWABI

Role-play allow learners to put things down on a practical way. Learners can demonstrate what they have in mind and others can observe. Learners must just learn from the demonstrations. Internet searching is because most learners have cell phones and are in a position to use it fruitfully. They

can work on their own, search for new information and broaden their own knowledge and understanding.

1.1.2 How do you apply the strategies mentioned and elaborate briefly on the level of difficulty of it?

VERIFAH

By explaining the content with relevant examples. Each learner must contribute to the group and the group leader must encourage every member in the group. The group leader must also take control and manage the group members so that everybody in the group must feel safe. It is important to move between the groups and interact with them in order to have a clear picture of what is happening in the groups. In some areas you need to give clarity and guidance so that information must come from the learners. The level of difficulty is moderate. They learn not to be passive, but must be actively involved in the discussions

RICHIBOY

CL is effective because it is structured, create classroom community, and is a sustained approach, as it enhances students' communication skills, encourages a growth mind-set, balances interdependence with individual accountability, and responds to classroom diversity. I encourage my learners to listen to other viewpoints because it can broaden their perceptions on certain topics and it helps with their personal and social development.

UMATHI

Giving everyone a topic, but it is difficult for giving feedback with less participation. I like to make sure that all learners in groups are actively involved and participate constantly without any interruptions from their fellow group members. When my learners are discussing, writing and communicating in their groups, then I can tell that something positive is happening in such groups.

CHESCAR

Bringing different dynamics into lessons like technology but learners focus more on the videos and photos than the content.

PETRA

I allow them to have insight discussions in their groups and then they must do some proposals and recommendations on certain topics. It helps individual learners to voice their opinions. They get to know how to work together and sharing ideas.

MONWABI

Role-play let learners demonstrate life issues that they experience and they discuss it by heart. At times they can demonstrate it practically but most of all, when they have to illustrate behaviour which can be good or bad. After each role-play they have to de-role- that activity. The teacher has to guide the learners how to de-role their demonstration.

1.1.3 Motivate the impact the strategy has on teaching and learning.

VERIFAH

Learners experience difficulties with doing summaries on their own. They cannot differentiate between more and less important facts.

RICHIBOY

CL is a teaching method that uses small groups working together to maximise the learning potential of each group member. The cooperation among students creates interdependence which lead to increased motivation and cognitive abilities.

UMATHI

It encourages learners to participate and you experience less or none passive learners. This helps them to understand the content better.

CHESCAR

Learners engage more and they provide different perspectives on the topic which leads to critical thinking.

PHAKAMA

It has a positive impact on teaching and learning because when I use poems, there are certain pictures to bring the learners back to the poem in the case where they do not have an understanding of it.

PETRA

It helps learners to concentrate and communicate clearly with each other in their groups. They learn to think better and with more self-awareness.

MONWABI

Role-play influence learners on a positive note. Remember learners learn differently and learners that watch or see things can remember it longer. Some can interpret information differently as to others but may arrive at the same conclusion. Group discussions allow for different views and it is to the learner to decide on the viewpoints.

1.2 Have you received training in the implementation of CAPS in Life Orientation and what is your opinion on the effectiveness of this training?

VERIFAH

Yes.

Twice per year for about three years concurrently although only two periods per week for Life Orientation. It is not enough and the content is too much. Training was effective but the implementation differs from on school to another.

RICHIBOY

No. I have never received any formal training in group investigation in Life Orientation, only in Physical Sciences, this does not make you feel good about it. It was because I have taught Physical Science and Life Orientation and I have to choose between the subjects. Preferably I chose Physical Sciences because it was one of the subjects that I majored in at the Varsity. I took over the subject in 2015 after my colleague deceased. The only workshop I attended was by SETA Bank conducted by the Life Orientation Provincial Coordinator.

UMATHI

Yes. Sessions were very fruitful and one would just like to go and teach and apply the many methods of delivering the content.

CHESCAR

No in life orientation the training was positive

PHAKAMA

Yes, I have received training. In life orientation the training was positive I do not think that more can be done in terms of training because the books that we receive are so obvious and the information provided is also so obvious, it appears everywhere, so it is not a problem.

PETRA

Yes.

MONWABI

Yes.

The training was good and the new topics were introduced. New topics was not only introduced, but the relationships among the topics and the assessment standards were discussed. Training outlined the differences between CAPS and NCS and was good.

1.2.1 Describe the training (where and by whom) and experience that you have had on CAPS?

VERIFAH

The training was local and it was done by the departmental official and the provincial coordinator. (Elaborate on experience) My experience up till now is good. CAPS is a good policy and it is skills-orientated. Whatever content you are teaching, it is based on skills. Listening skills, group skills,

higher-order thinking skills, arguing or debating skills, there are many to mention. This is the difference with the previous curriculums which were based on content rather than skills.

RICHIBOY

The only workshop I attended was by Bank-SETA conducted by the Life Orientation Provincial Coordinator. This was about financial management and how learners must be trained to manage their money in and after school. I have come on board with CAPS during the subject committee meetings that the district office of the Northern Cape Department of Education was having once per quarter, except the last quarter of the year. During the school support visits the subject advisor took me on one-on-one sessions through the content of CAPS. This training was done after school hours on-site and I believe that I am not the only teacher who missed out on training and received such training after school. You could ask anything you do not understand because it was just you and the subject advisor. This for me was very positive and developmental and so to say I was able to ask questions on a follow-up school support visit. Those sessions were in fact my training from the subject advisor. What I like from CAPS is the same content is taught all over the country as prescribe by CAPS. On the other side, I think I have sufficient experience with CAPS, but you can only excel as the time pass. When you moved from here to another province, the content for that time will be the same. Learners and teachers don't have to struggle around. Learners will be able to respond to the content that will be dealt with at that time.

UMATHI

The Department of Education provided the training and it was facilitated by the Learning Area Manager in the district of Pixley Ka Seme. Training was at one of the High schools in town, but it was shifted from one school to the other. The detail of the content was discussed and how the teachers could use the SMART method to make sure they are not spending too much time on a topic. CAPS is time specific. I enjoy it. There are specific indicators which content must be dealt at a certain time. You can play around with content within the quarter but as long as you are finishing the curriculum of the term. It is learner-centred and skills-driven. Content is of such nature whereby learners have to be involved in the activities. My only concern is the depth and scope of the content is tricky. One teacher can zoom in deeply enough into a topic, while the other will only cover the obvious part. It is a good policy to have.

CHESCAR

No training received

PHAKAMA

Training was at the district office and the facilitators were the district officials and in some cases the lead teachers were involved. They took us through the content of the year, quarter by quarter whilst we worked out lesson plans to prepare ourselves for implementation. The packaging, repackaging and the sequencing of the content was explained. What was interesting was the depth and the scope of the content although there was no limit how far you can go.

PETRA

Province conducted.

MONWABI

I was trained by the district officials, training was at one of the schools in the local town. Although LO is a skills-driven subject, it was clear that more emphasis was placed on the content and how the content was moved from one grade to another. It was moved not only from grade to grade, but from term to term. The depth and scope of content was now placed according to the relevant grade which was interesting. It is so clear and you have an understanding of it.

1.2.2 What was the duration of this training?

VERIFAH

I attended the CAPS training for two weeks per year for about three years.

RICHIBOY

The SETA was 2 hours.

UMATHI

I was fully trained to implement CAPS. The training was in the form of a workshop and was about 3 to 4 days twice per year for three years.

CHESCAR
No training

PHAKAMA
Two to three weeks

PETRA
One year

MONWABI
We were trained since 2008 for two years consecutively. Training was each year for at least one week.

1.2.3 How adaptable and flexible do you feel the CAPS curriculum is with regards to teaching approaches and delivery of content?

VERIFAH
Quite adaptable. Educators can use various methods to explain content or bring a message across. It allows you to play with the content, but it depends on the context at that time. We are confronting with the day-to-day realities at our school and therefore the needs of the learners are coming first. The curriculum is then adjusted according to what you experience in the classroom. My experience up till now is good.

RICHIBOY
Adaptability is something teachers require on a regular basis and likely plays an important role, in helping them to navigate with the content and the demands of their work. It is also difficult to adapt and be flexible in teaching without enough teaching experience in CAPS. There are too many changes and a lot of unnecessary meetings during school days which interrupts effective teaching and takes a lot of time. These things force you as a teacher to adapt the content and your teaching approach.

UMATHI
It is very flexible and encourage learners to be involved in the lesson. Content can be shifted depending on the context of the school and what the current needs of the learners are. But this shift has to be applied with in the quarter so that no content must be transferred to the next quarter. Taking this into mind is that the departmental head of life orientation must be consulted otherwise you have to have extra classes to finish the curriculum. And you know the stance of the departmental heads when they have to report on curriculum coverage.

CHESCAR
CAPS lend itself for variation of content within the quarter and you can play with it. The content is of such nature that any teaching approach will suits it, but it is just proper to plan according to what you think will be the best method to use. Content is so relevant because it is things that we experience in our everyday life and you can apply it so easily.

PHAKAMA
The content is very flexible because you can use any method as you teach in the content of CAPS, irrespective which method you will use, the content is much flexible. The advantage if CAPS is that any technique, old or new, it will work. It also provides for all kinds of learner abilities in the classroom. The information, the content can be taught. There is no problem with CAPS.

PETRA
CAPS is a flexible curriculum. Learners are taught according to their context and abilities.

MONWABI
It was made clear to us that you can move content around within the term, as long as it is not moved to a next term. The content s of such nature that it is relevant and real issues that learners like to debate. The content allows for different teaching approaches to be used. Group discussions, research, investigations are all sorts of approaches that is flexible and can fit into any content of the subject.

1.2.4 What benefits came with the training you received on CAPS?

VERIFAH

CAPS allows you to start with any content relevant to your context at school or community, but as long as it is within the content of that quarter or term. Content is practical and learners can use of apply it in many instances in their lives. It also makes provision for scenarios to be applied with the relevant content.

RICHIBOY

No. I have never received any training in Life Orientation to be specific, but CAPS is very specific by means of prescription of content, pace, sequencing and assessment. You must teach what you are supposed to teach and what is prescribed by the curriculum, week by week

UMATHI

During CAPS we as the teachers have developed lesson plans for the year. Some were only for that quarter of training. Relevant content that relates to events that the school or the district will have, could be re-arranged so that it becomes relevant to that particular event. CAPS also allows learners to develop skills like independent learning, respect for each other, reasoning, accept others opinions although you do not agree with. Content can be applied in many ways whether it is scenarios, case studies or group discussions.

CHESCAR

Although not receiving training, content of CAPS is very relevant as I mentioned before. Learners are exposed to a variety of skills that they can apply in their daily lives, like study skills, career guidance and democratic values. That is content that you apply in different situations or even when you have to make informed decisions, it helps you really.

PHAKAMA

Yes, most definitely and still. It does not matter if I am an old teacher there is always advantages. You must at all-time attend training sessions. Never miss out, it empowers you, keeps you updated, and you just learner new things every time. From my experience, this what I have learnt from work books and training sessions.

PETRA

CAPS content allows learners to relate with issues they experience in their lives. It is current issues and they enjoy discussion on it. In my view, if you prepare yourself well, you could make the content very interesting for the learners to enjoy and then you will not experience disciplinary problems at your school.

MONWABI

CAPS provide different kind of learner-centred strategies that can be applied in life orientation. With learner-centred activities many skills can be tested and learnt by the learners. You can explore current issues that is relevant to learners and that makes it interesting so that they want to do more of these kind.

1.2.5 How were the teachers who missed out training accommodated?

VERIFAH

Special programmes were organised for those who have missed out on training and communication from the District Office was send out early enough so that one could make arrangements well in advance. These trainings were called the mop-up trainings which were held over week-ends and some after school.

RICHIBOY

I have no idea. No information was given to educators, not that I know of.

UMATHI

Teachers attended workshops. The District sent out letters to make sure how many teachers did not receive any training in CAPS and the school manager has to complete and return it. Sometimes when you feel that you need more training, the school manager request from the District whether any additional teachers could be accommodated.

CHESCAR

I have no idea, except that I had a one-on-one session with the Subject Advisor and he took me through the content. We had quite a few sessions and to be precise we had one at the end of the quarter to plan for the next quarter and my first was at the beginning of last year when I phoned him to ask for assistance.

PHAKAMA

PETRA

They trained by subject advisors.

MONWABISI

I remember that they had a catch-up session, was it catch-up or mob-up, I am not sure what it was called, but one of them. The department had a centralised training session for all teachers who missed out from CAPS. The last centralised working session was in Upington, because some of our teachers attend that session.

1.3 Have you been trained to use the cooperative learning approach? Do you feel that you have received adequate training for your position as LO teacher?

VERIFAH: Yes

RICHIBOY: Yes

UMATHI: No

CHESCAR

No training to say. But I learned about CL during my studies at the Technicon and were sometimes exposed to CL demonstration lessons. As a LO teacher I would love to have more training, but the workshops take so much time of us.

PHAKAMA: Yes

PETRA: Yes

MONWABI: Yes

1.3.1 Where did you receive your training and what was the duration thereof?

VERIFAH

Training from NIHE College, Technicon of South Africa.

RICHIBOY

UFS, Subject didactics

UMATHI

No training at all.

CHESCAR

I learnt of it [CL] at the Technicon and it was part of my modules that I did during my years of study.

PHAKAMA

Yes, at the district office for at least two to three week per year.

PETRA

De Aar – One year

MONWABI

My training was at the District Office and it was part of the first training sessions in the province.

1.3.2 Would you have liked to have more training/more specialised training? If so, what type of training?

VERIFAH

Yes, but it must be training in Physical Education.

RICHIBOY

Specialised training will be appreciated.

UMATHI

Yes. On how to approach cooperative learning.

CHESCAR

Yes. Differentiation and classroom technology. CAPS is very interesting and I will appreciate to be trained in CL. This will allow one to apply CL correctly and that you are able to use many other forms of CL in the classroom.

PHAKAMA

Yes. What I have notice in group work, it empowers you, it gives you opportunity to speak, you who never talk, become involved. That is why the groups must not be too big, it must be of such nature that everyone in the group must do something, like reporting, giving information and the likes. Then it will work. So to me to get the learners involved is group work to work but it has to be smaller groups. So that everyone in the group can do his or her part as a member.

PETRA

No

MONWABI

Training for me can be the same, but they must just focus on content relevant to that term. Specific training for me would be cooperative learning and why, so many different strategies within cooperative teaching can be used. They must concentrate on intervention strategies within Life Orientation.

1.3.3 How adequate do you feel is the training that you have received for your position as Life Orientation teacher?

VERIFAH

Very much adequate.

RICHIBOY

Never received any training for Life Orientation. Cluster classes was the only feedback from the learners (Grade 12) results which happens every year.

UMATHI

No response, inadequate training.

CHESCAR

Tor me more training is needed. I am not so confident yet in teaching Life Orientation, but I can do with my one year of teaching experience and teaching the subject as well. One feel to excel in the subject you are teaching and for that you have to be exposed to various types of training. The subject has many components and that is my reason.

PHAKAMA

It was good Sir and quite adequate. To me, never miss out, it empowers you, keeps you updated, and you just learn new things every time.

PETRA

It was sufficient because it developed me.

MONWABI

Training is adequate and sufficient to those who attended. More integrated assessment should be done and not assessment on its own.

1.3.4 What were the benefits of implementing cooperative learning strategies in your teaching?

VERIFAH

Learners working together and they benefit of being in a team. What is pleasing is when they give each other an opportunity to speak and here and there correct or help when needed. I normally encourage everyone to participate in the groups and to give their part of contribution. You move in and between the groups and so to me it a way of establish order in the groups. When learners do not understand, I divert the question to another group to make sure everyone is involved or approach

the group to discuss or to re explain again or when I realise it's the whole class that needs to be addressed, I speak to everybody, the whole class. They listen to others opinions. It becomes my task to identify others with no social skills and to work with them to jell in with other group members. To use knowledge to adapt learning strategies.

RICHIBOY

It minimises a lot of work and give learners opportunity to work together and be able to express themselves. They learn to speak freely and it could be because of the small groups, because when they must report to the class as a whole, some learners become reserved and do not like to be on the forefront. Sometimes I repeat when they do not understand the question correctly or when it's unclear for them. When I ask questions, I make sure that everyone listen so that I am able to ask anyone to respond. Learners' reprimand one another when some are out of order, do not listen while I am on the floor, or misbehave. And that is what I like.

UMATHI

Learners develop skills to interpret information and analysing information on their own. When they engaged in group work where they feel comfortable and at ease, they tend to learn higher order thinking skills which help them to filter information easily. Learners learn to know each other in a short space of time and listen to each in the group, even while others are speaking. There are so many advantages you experience when you apply cooperative teaching. Learners tend to dominate the rest of the group members by asking questions alone instead of giving opportunities to other members. When I notice that, I quickly talk about group dominance so that it never happens again. I encourage them to give everyone an opportunity to ask questions or to speak. You learn to attend to individual needs of them in the group and sort it out just there. You know learners like individual attention and I am on the lookout for that.

CHESCAR

Students with mixed abilities work together, developing self-confidence, enhancing communication and critical thinking skills by using puzzles, experiments, and role-play. When learners stuck, they call you and you interact to the problem. In some ways it is individually but other times it is to that specific group or the class as a whole.

PHAKAMA

As I said, when the groups are too big because of large class sizes, then they become unruly and not all cooperate and give inputs. Some learners hide behind others. So it has its disadvantages. It depends on the size of the group.

PETRA

Group discussions helped to reach the individual and sharing information among them. They make sure all members are on par and they know what they are doing. Not by learners alone, but the teachers can spend some time with individual questions and assist. Due to overcrowded classes, learners come to the front to explain their problems and then we interact on how they understand. You have already identify those who are shy and have fears of speaking, so on a very soft way you go to a group, speak to a group and without noticing get to those learners. Gradually they started to open up and talking to others.

MONWABI

Learners are allowed to work in groups and as individuals. I intervene when there are uncertainty and they need my attention. I monitor the groups and walking among them for help. Where learners dominate, I then step in to rescue the situation. This kind of learning let them learn new skills like analysing information, evaluate information, take in your own view point with regards of others opinions. They get the opportunity to learn from their friends and become independent thinkers. Despite working independently, they remain responsible for the group and for the success of the group.

1.4 Discuss your preparation to use Group Investigation activities?

1.4.1 Explain your perceptions of the strengths and advantages the use of GI brought to your teaching?

VERIFAH

I can express my own view. The preparation of group investigation needs a thorough planning. You have so much confidence in yourself and you are better prepared to work with the learners. One other thing to say, we were trained on cooperative learning but not on group investigation to be specific. When you hear cooperative learning, you think about group work. And that was it. When I do proper planning learners will immediately know how to perform their tasks. It [cooperative learning] is similar like group cooperation where learners work in groups, just that members have a specific topic which is divided among them. After finding out information on their own they come back and report to the leader of the group. They learn how to summarise information before they must do a presentation to the class. They start as a group, then work individually and then back to the group again. To me they become independent workers, information seekers, and so develop confidence to do things on their own. They learn to respect one another, because they are of different backgrounds, have different personalities and must learn to work together.

RICHIBOY

It is important to mention that I have never received any formal training in group investigation so that you understand my background. I read many sources about cooperative learning and because of the projects, I found group investigation the most proper to assist learners in research and assignments. ... this is how I try to keep myself updated and make planning for myself easier... cooperative learning, group work and group investigation are all the same, everyone has its own way of application, you must only differentiate when you are busy with group work. But I have some knowledge about it, although not sufficient enough. GI activities improves students' academic achievements. It is helpful to achieve personal learning goals ... by achieving group learning goals. Learners only perform better the moment they are able to work on their own, independently and have confidence. Members of a group is responsible for the success of the whole group. They learn to trust each other, because every one of them are responsible for the success of the group. This helps them with higher order thinking as well as personal skills. What I like is the way they learn to handle critique in a positive way. You could see this when they are divided into pairs and work on their own by seeking and analysing the information they have collected. To me this is similar like the project or research that I do with my kids in Physical Sciences.

UMATHI

I see GI as a progressive teaching approach in a sense that it stimulates learners and everyone in the group, also those who are just listening and watching to what is presented by the different groups. Except for the different skills that learners acquire, it brings classroom discipline and order when learners are busy or when I am teaching and explaining information. The strengths of GI is that it motivate learners to work independently and to be focussed on their work. They must find information on their own, doing research on their own to ensure that the end product they will present to the group and then to the class, is of quality. This method encouraged teachers to be well prepared, for learners to develop self-confidence, social skills, work well in groups with other learners and learn to respect opinions of others. The only important factor is planning. Planning from the teacher's side and from the learners' side as well. When the teacher is well prepared learners see it and then you can act with authority. They respect authority. When learners are used to group work and specifically cooperative or group investigation activities, they are able to work fast in looking up info... collect it and work on it. Finally, the skills that they acquire are enormous. Skills to analyse information, to collect relevant information and to come up with a quality product in their presentation. This leads to better performance in their assignment and in the tests in general.

CHESCAR

Learners get to know each other and they become confident by motivating each other. Critical thinking skills – they have broader perceptions among learners.

PHAKAMA

Yes, to it is to learn. When they are returning with the information. I become excited, because I want to hear something new, interest what the learners did research on and so they know and learn from each other in class. With that goes respect, caring for one another and taking responsibility for their own and their group work. It is not that the teacher is giving all the information, we get information that we have never heard about or here from and no it comes to the fore. So, it has a big advantage to the class. For the teacher as well as the learners and everybody is benefiting in this situation. To give the assignments to the group, whether it is research or whatever, then you divide the group into smaller units which will go out to do an investigation what they will do within the group. Everyone will

then come back with a report; it will then be compiled by a member. After that someone will do report back to the rest of the class or the teacher. It is important that everyone must know the roles they have and what it entails. It does not make sense giving them a task but they do not know what to do.

PETRA

Peer teaching takes place, which is an advantage.

MONWABI

Learners learn to work on their own and independently on their activities. Likely from group investigations, learners are first informed about the topic they can choose from, from there they have to look up information before presenting it to their friends. After everyone did this research on their own, they report back to the group with the leader in charge. Working together is not all they earn, but also to work in a group, respect others opinions. They learn to analyse information, tolerate each other and help each other to be successful.

1.4.2 Why would you continue to use the GI approach?

VERIFAH

It helps learners to think independently. They learn to analyse information but was outstanding they learn to look at information with a critical eye. That really boost the confidence and self-esteem of the learners. It helps them to improve their personal performance as well as group performance. To me it also prepares them for the life after school where they have to do research on a higher level and where the support is not available as it is here. I think this is a good strategy because everything nowadays is about research and working independently.

RICHIBOY

It is an easy approach and gives my students an opportunity to work together, let them explore themselves. Learners excel in due to working in groups and the help they get from other learners in the group. Meaning it is not that the individual counts more, but the end goals of the group. When the group succeed, the whole group is excited and feel good about the performance. At the end, there is an overall improvement in their performance and achievements of the group. It gives them confidence and build their self-esteem.

UMATHI

It allows learners to develop skills like, working independently, and higher-level thinking skills, learn to respect others, ability to work through important information for an activity and can take a leader position in the group when others struggle. Learners perform well in the group work and one can say they achieving better results in their tasks and presentations. Learners are motivated to work on their own topic of interest and when they are interest on the same topic, they can work together.

CHESCAR

Individuality thinking definitely, but it is to bring the individual into a group context and it enhances peer understanding. Learners develop self-confidence and are motivated to work in groups. The work alone with their task before going to the bigger group, whilst most of them have struggle to find information on their own, meaning there is some form of independent working skills coming forward. To my observation, learners perform better in their tasks and are willing to help their friends. They find it easy to fit into groups when they are divided into another groups.

PHAKAMA

Yes. It gives you more insight about other things, it helps with thing I never know. Through research one learns very much because this is how the information is gathered. The same with learners, when learners start to realise, which is most important, then you know worlds are opening up for them, they are getting more knowledge and that is why we must teach them to discover on their own. That motivates that learners, their thinking (higher order thinking skills). When questions are asked, for example, explain, discuss, etc. all of them are used in all subjects. So, integration is so important what the learners are taught in any subject like geography, because most of the content and skills are repeated in other subjects (Life sciences, etc.). So, we must teach them to see information in an integrated way and also learn in an integrated way than the work will be much better for them. An example is ...Informally discussed (Off the record) Lucky Dube. When learner submitted their information, it was informative. Learners did a profile from some of the actors. I also learnt from it. There I realise what valuable information you will get when you do research. And that grade 10 group was excellent especially when they have to do oral, they become so much confident that I never did

oral again with them, because they have learned the skill and exactly know what was expected from them. They using the internet, their smart phones and even the library, they bring the information you want.

PETRA

With today's education, learners need research skills and working independently. They can put information together so quickly and correctly and it is fascinating. Meaning their analysing skills and summary skills are developing without they knowing. That is tops from GI. Now GI is developing those skills and learners learn that much faster as I thought. One sees that they build confidence, and are eager to talk whether individually, in groups or performing on behalf of the group. That interest me to say. Another important fact is learners start to care for their friends, help them till they are satisfied with it and then they return to their desks.

MONWABI

Personally, this is the only method that force learners to develop research and inquiry skills. It teaches learners to be investigative and consolidative and analysing information in order to compile a good presentation. They realise it is not only the individual that counts, but the group as well. Learners that were not so confident at the beginning, start to present with confidence. Working in a group, they learn to value each other's opinions and do not have to agree if they have opposing ideas. They start to look critical to things and they immediately can form their own opinions. Interesting, is that they discover things on their own and they feel proud when they realised they work smart. Another best practice is they never let anyone behind and will always help them so that they can be

regarded as a group.

1.4.3 Deducing from your teaching experience, how much influence do you think GI approach might have on learners' achievement?

VERIFAH

Personally, I think that it helps learners to work independently, but those who wants to participate freely. Well, not all learners do seldom partake in group activities.

RICHIBOY

It has a high and positive influence and build learners' values and morals. It helps to work in harmony with each other. Learners are able to tolerate and respect each other's strength and weaknesses. The slower learners benefit in this process of learning. They learn from the group members and try to do the same on their own. At the end, all learners in the groups are so confident in the presentations and are eager to know the outcome. Although achievement is important, to my learners develop skills like critical thinkers, working on their own, collect information on their own, be confident, and learn to respect others and so on. At the end these skills lead to higher achievement and success.

UMATHI

It has a big influence on their achievement. They are actively involved in group discussions and cooperate with other group members. They interpret information much quicker and understand questions better. At the end they are successful in their tasks and obtain good marks. I think the knowledge they gain is has big value. It helps them to improve their understanding on certain topics. Learners perform much better in their individual tasks if you have to look to their marks. In comparison to the work of the previous term, learners' overall performance indicate improvement in their marks.

CHESCAR

A lot – learners learn better from peers and they remember certain topics when critically discussed in groups.

PHAKAMA

Learner have started to do better. Their performance has improved. Learners have started to work on their own, nor only what I have taught them, but they have discovered things on their own, up to where they were able to. That learner can report much more in the class, can give higher order information and that is what happen. So that is definitely to their advantage.

PETRA

It was sufficient because it developed learners' skills and there is improvement in their performance. This is evident in their task marks in general. Teaching for a long time really helps when you must practice a new teaching method. With GI it was not that easy, but you could use your experience in forming groups, keeping discipline and re-arrange groups when they become unruly.

MONWABI

The views of learners develop much faster when they work in groups, because they learn from each other and in many cases when they do not understand, they find it easy to ask a friend or a friend finds it easy to help the other friend. Learners become open-minded and learn to listen to what others have to say without jumping to conclusions as they normally do. Teaching experience will forever be important in any classroom. Instructing learners to keep to the rules was easy, but to keep that instruction during teaching time, needed courage to. Dividing them in groups, explaining their part they will do and put them to work is part of our experiences. Discussions were at time very noisy and that is where the teachers must come in strongly. To keep the discipline and the noise levels low. Learners who want to dominate the group was keeping me busy. So, experience play an important role in executing GI.

1.4.4 How can you explain your knowledge and understanding of group investigation as a teaching approach in life orientation?

VERIFAH

I believe group investigation can be applied in various subjects, but there is a procedure to follow to ensure that the correct steps must be followed. In teaching the subject with group investigation as a teaching strategy, you must have special training so that you can have the knowledge on the teaching. It is not just anyone who can teach the subject although people assume that. When you understand the method, you teach with great confidence and you are on top of the content (know the content well). From my experience, I heard how teachers complain about teaching the subject, but they were eager to teach it at the beginning. To go back to the learners, groups are becoming specialists with their topic of content that they have to investigate and when returning to the main group, they have to perform presentations which will be assessed by the facilitator. If I am not mistaken, learners also have the opportunity to evaluate the other groups

RICHIBOY

As a reader I think my framework of knowledge about GI is adequate to assist me in my teaching. I do not have training in it, but I keep myself updated by reading and doing a bit of research on my topics I taught or discussed in the class. Group investigation is like research or a project which the learners have to do over a period of time. When you give instructions or explain information, it must be clear to the learners and they must understand it. Learners must follow the instructions and suppose to take note what is expected from them. Education requires nowadays that teachers must have formal training in the area of specialisation. When you have studied the theory of Life Orientation and were exposed to teaching practice, you will be able to teach the subject without any doubt. What is similar to It has given me a better site about how fluent my students can be. I can easily identify the introvert and extrovert in my classroom.

UMATHI

I think my understanding about GI is broad enough to teach it correctly. I am in a better position to help other teachers as we normally do it at our school, because I am on a higher level with regards to my knowledge of the subject. At least I understand the procedure and how to work with the learners on it. GI is a very complex method if you are not familiar with it. You must have a good understanding of it and the topic at hand must be clear to the learners to know exactly what is required from them. The teacher must facilitate the process on how learners will work on the topics and sub-topics to be investigated. Then groups plan their investigation by developing their questions and how they will collect their information. After completing the investigation, information will be collated in the form of a summary and then presented to the group first and then to the class. At the end the teacher and the learners evaluate the investigation. But as I said, you must have a proper understanding on how to execute this method.

CHESCAR

LO is a subject that teaches life skills and life after school – engaging in the subject, enhances different experience and perceptions; they learn to be empathetic.

PHAKAMA

I will not say that I have a good foundation of GI. But I have enough knowledge of doing research with my learners

PETRA

All textbooks/ workbooks are 100% CAPS compliant

MONWABI

Group investigation is an approach where you want learners to discover things on their own, but still work with friends in a group. After each member did his/her part, they return to the bigger group and report on their findings. All information will be collated and when everyone agrees that the information is correct; it will be presented to the class. The teacher and other learners have to evaluate the product and then you receive the outcome result. With this kind of approach, learners develop higher order thinking skills, can easily analyse information and improve their own performance of learning.

1.4.5 What is your understanding of teacher knowledge and teacher pedagogical knowledge?

VERIFAH

I believe teacher knowledge is an extensive subject knowledge and teacher pedagogical knowledge is the relationship between knowledge of teaching and subject knowledge. I am of the opinion that teacher knowledge is the broad spectrum of knowledge – knowledge that you have learned at the college or university, what you have experienced during practice teaching as well as the knowledge you experience in the real classroom environment of teaching. The pedagogy – that refers to the day-to-day management of the subject content with interaction with the learners and how the learners must understand the new formation. Also, how you teach and your way of instruction to the learners.

RICHIBOY

Teacher knowledge: Understanding or knowing my students which will require my patience. It can be the different skills and capabilities you as a teacher have which make life in the classroom easy. Adaptability knowing that kids are different and learn in different ways and some lessons need unique teaching tools. Teacher pedagogical knowledge refers to the specialised knowledge you developed during the years of study, training, workshops on how to teach in the classroom you will work in one day. It prepares you for the real situations that you will face at schools. It helps for creating effective teaching and learning environments for all students.

UMATHI

Teachers should have a broad knowledge and understanding. To me teacher knowledge is the basic knowledge a teacher must have when specialising in a specific subject. It is specialised skills and experiences a teacher acquires to perform the day-to-day teaching activities. You must have a good understanding of the subject matter and even to say, you must be an expert and knowledgeable on the subject matter. It is also a professional competence a teacher should possess in teaching a specialised subject. What teacher pedagogical knowledge concerns, is the way you apply your teaching methods in class in order to improve learner achievement. Content is being presented in special ways to learners to understand the new information, be able to acquire the needed skills and values and become a competent individual in society. Teachers also accommodate learners in a diverse teaching setting.

CHESCAR

TK is understanding the process of teaching and using the knowledge gained at university, reading and life itself and executing this in the class. TPK – having excellent content knowledge about your subject and building skills to support learners in the learning process.

PHAKAMA

I understand it like the Teacher knowledge is something that you have to do every day, it is in you and what you will automatically respond to with that skill. If you are in a classroom, learners will immediately know that this is a very strict teacher. The teacher in you, what you are, you like discipline you are not really a strict teacher but you like it. The method in education, [pedagogical knowledge] like in Afrikaans as a subject, starting from the alphabet then I know what to do in grammar with such learners. If they do not know then it will be problematic. There are basic components a learner should know before you could start with anything else.

PETRA

Teacher knowledge- is only content knowledge but pedagogical knowledge is promoting learner involvement through their tasks.

MONWABI

One demonstrates teacher knowledge when you convey or disseminate information to learners. It is the theory you learnt during your studies and the experience you have gain over the years. Pedagogical knowledge is the how do you do knowledge in the classroom, how make information understandable to learners, the assessment they will do after you explain it to them and lastly, how learner must show an understanding about the content they leant.

1.4.6 Lastly, how do you integrate your pedagogical knowledge and your experience as a Life Orientation teacher into your teaching using group investigation as a teaching approach?

VERIFAH

Your pedagogical knowledge is the how you teach in the classroom, the way of instruction, how you convey the knowledge over to the learners and it does not matter which teaching approach you are using. Moving from the known to the unknown by means of questioning and answering methods it helps to pick up the misunderstandings easily. Learners also pose questions, but you managed to handle them. Teaching experience is definitely helping, but you must have a proper understanding in the execution of group investigation and I 'm not 100 percent sure of myself. Sometimes you struggle with the procedure, as it requires a specific way of doing it. When groups get noisy, I confronted them and demand order immediately. Sometimes when you just turn your back some members act if they did not hear you. But you get success at a later stage. At the beginning I found it difficult because projects and investigations are not assessed every time. Only once a year or so. But I would like to have proper training on it and even a demonstration lesson will help me. If it works in the life orientation classroom, why not using it in other subjects as well. That will just sharpen the skill in our learners and it will improve learners' performance in general. That makes it much easier for me in applying group investigation because now I can use many scenarios with different groups or even one topic to ensure content presented will be the same but of different quality.

RICHIBOY

In my few years of teaching the LO, I am comfortable how to go about with my learners. My way of teaching is to get the learners at ease so that they are relaxed in order to hear what the teacher has to say. I regard my training at varsity as adequate and sufficient which prepared me well for the classroom and that is why I can with the greatest comfort, use my experiences as a teacher to use GI. I had some experience of cooperative learning from the varsity side which help me. I can see the improvement in the achievement of my learners and they like the idea of working in groups and compiling reports. Although no training or workshops were provided to us, I do not turn a blind eye to my teaching and my learners, but as I said before, I had to find my own way to make my life better as a teacher. Here are many teachers who have knowledge, skills and experience. Adding the experience of what I know, or either have experiences in real life situations help in my teaching.

UMATHI

The way I am trained at the university and the different teaching ways of cooperative learning, gives me the freedom to freely teach any content. Our education at the varsity was of good standard. It is important to share your teaching knowledge to those novice teachers who are entering the system for the first time. Like know, I can regard myself as an expert in my field because I had up skilled myself in the subject with my qualifications. The subject allows for a variety of teaching methods to be applied. To manage you daily teaching has become a skill because we know that many are not coping with managing learners when they use cooperative learning. When you not teaching it regularly you experience discipline problems where learners are noisy and unruly and it is difficult to get them to rest. I can tell from my own experience. Sometimes I experience that, but then you have to be strict and shows authority in class. Nevertheless, the content directs the method you will use in your teaching. Projects and research investigations are mostly used when I make use of group investigation as a method of teaching. It allows learners to investigate the topic of interest on which they want to broaden their knowledge.

CHESCAR

Providing learners with my knowledge and experiences of life and then challenging them by asking those questions why they do things and think differently, like why are our perceptions and opinions different?

PHAKAMA

Sometimes it happens automatically. Because of the experience you have then you know which methods will be appropriate for those learners who are struggling. Or you know that some learners like to play. So, you bring your experience to let learner know they have to work to the classroom and then you are there to help those who are struggling. This is how you know when the method you use will assist those who struggle, to support those who struggle.

PETRA

Different techniques in the Cooperative learning method: like the Jigsaw Technique: it makes it easy for learners to understand the subject; group Investigation and Jigsaw techniques on student's academic achievement. Using the traditional teaching method. Teachers subject matter (content)/ Teacher Knowledge; it is content knowledge about the topic you are teaching; It is when you are teaching only isolated concepts. Teachers must let kids find information on their own. Pedagogical Technique General knowledge of instructional methods/ classroom management/ classroom assessment; Knowing when and how to apply each method in promoting involvement with their learning tasks; Knowledge of teaching methods; This knowledge is unique to teachers because it is based on what teachers know about teaching and what teachers know about what they teach.

MONWABI

Once you have the love for teaching it is easy to integrate pedagogical knowledge into your daily teaching. You must understand how to apply group investigation in order to be successful. After following the individual look up of information, coming back to the bigger group and make your inputs, you then realised how important this information is. Groups formulate a common response and report to the class as a whole. After evaluation by the teacher and the other groups, then you see what your end result is.

2. What challenges are faced by LO teachers in planning and applying GI as a teaching approach and how do teachers overcome the challenge they face?

2.1 What major challenges / problems do you face when you use GI approach to teach Life Orientation?

2.1.1 Describe your views and /or experiences about the challenges you encounter in teaching Life Orientation that might regard as the hindrances during the process of teaching and learning of Life orientation?

VERIFAH

Classes are too big. Big classes are the main concern. You find it difficult to move in and between the groups and to give assistance when learners are asking for. When you call them to come to the front, it takes time and sometimes you feel so hopeless. Learners do not work together and some learners do not even participate in the group activities. When you divided them into groups, these groups are so big and it is mostly members of six to ten. Big groups are unruly, they are noisy and some even ignore you when you are talking to them. This also deprive those who want to learn the opportunity to do so. And I think it is frustrating to them too. This is very painful when learners are so disrespectful and misbehave. You must know it is because you do not have a choice when it comes to this large class sizes. That makes group work extremely difficult to apply. Time is limited or too little. Unexpected departmental programmes also stand in your way when you apply cooperative work. Because of the distances that we have to travel, it takes many of our time and it is sometimes two day in a week that you have to attend these sessions. Although circulars are received in advance, the time lost is difficult to recover. Remember, you could start with group work today, tomorrow you will be called for a meeting somewhere. These interruptions are very negative on my teaching. Even at our school, you must be prepared for meeting at any given time and it does not have an end. People use it to escape the classrooms because of the ill-disciplined learners.

RICHIBOY

To me is the workshops and working committee meetings of the department that takes a lot of our time. The painful part is that no time can be recovered. The school has it structured afternoon classes and we cannot just ask to be fit in to catch up. Learners coming from different backgrounds and environments, also lack of resources for students, been in rural areas is quite difficult for learners to explore. They seem very much uninterested in the class and sometimes you observed they are bored

and not keen to participate during these periods. This is because of the large classes at school where you cannot give attention to all learners at once. It is difficult to move around and paying individual attention to groups that need help. Classes with fifty plus learners are difficult to manage, and our management does not hear that excuses. They are noisy, disruptive and that is frustrating. You are so frustrated because you have to encourage and talk to the learner all the time. Another burning factor is the different meetings we have. You have meetings from the district office, meetings at school or provincial programmes that are running. I think these meetings take so much teaching and learning time and when time is lost, it is hard to make up for it. Even meetings at school. Or in the morning or in the afternoon. I prefer the afternoon meetings then you know there is no teaching time that is compromised.

UMATHI

You must use group investigation regularly. Sometimes you leave out some of the steps or integrate some and you are not aware of. When learners are not used to the method, especially the groupings, then you experience challenges like lack of discipline, disruptive behaviour in the groups or just learners who refuse to work with others in a group. Not all our classes are large in size, but those which are big, you experience many unruliness and lack of discipline. You experience that the bigger groups are noisier than your smaller groups. But it is difficult to work with smaller groups in your class. Some show a lack of interest and excitement and are not willing to participate. Learners have their own day-dreaming and sometimes one can take it to their own circumstances at home. They are not cooperating in the groups and are mostly want to work on their own whereby group investigations allow for group work as well.

CHESCAR

Personality clashes, different opinions and perceptions that give rise to conflict. As a teacher I deal with different personalities and individuals who have different backgrounds and that is time consuming. The upbringing of each learner is different and difficult and this cause conflict among groups and disagreements in each group. Learners are never-minded and likes to disrupt the classes at certain times. One can take it further by saying that this is caused by the large classes, learners that cannot concentrate for long as if they have a short concentration span. They are staring through the windows and have no interest in what the group members are doing. Don't mention the meetings, it is terrible here. That makes me negative because ... especially programmes departmental programmes, the life orientation periods are always at stake. When you speak your mind, this mean trouble with the school management team. This is very worrying to me.

PHAKAMA

Sir there are many challenges. Or it is noisy, you never know who is talking, and you cannot really move comfortably to the groups when it I group work to see what they are busy with. Group work is a big problem, for me it is better not to have group work with big class sizes. Because how many groups will you have, and the total number of learners per class is big. The bigger the group the bigger the problems so I will not really recommend group work to anybody. Problems: noisiness, learners are not working, they like to make jokes, and like to play all the time. They are not focussed and they depend on one another. That to me is laziness, because you cannot really see who works or who do not work in the group. They have a never minded attitude and do not want to work. I cannot attend to them because there is no space to move in and between them and they know it. That makes it difficult.

PETRA

Less teaching time makes it difficult to focus on all areas. Teaching time and content coverage. Learners tend not to listen to you and they do not focus on the work. They are misbehaving and ill-disciplined and just want to be seen by their friends.

MONWABI

It is difficult to apply group investigation in our classes. Classes are with big numbers of enrolment and it is up to 50 learners per class. It is even difficult to work in groups, because you cannot work in and between the different group to assist them or paying attention to those in need. Overcrowded classes bring along disciplinary problems and misbehaviour. Learner are disrespectful towards their friends and to me as well. The wait-for-the-other-one factor arise easily when learners are not sure about their facts. Some are dependent on others and are not that willing to work on their own. This creates wait-and-see what will happen before learners start working on their own.

2.1.2 What steps have you taken to manage, overcome these challenges?

VERIFAH

With big classes I have no solution, although it is a setback for me. The time aspect, I copy notes to save time for other activities. But because of our learners and that we as teachers have a responsibility towards quality education, I will try my best to deal, even with frustrations, with these encounters. It is not within the hands of the classroom teacher, but the school management teams, the district offices and the National Department of education have an overall responsibility for good quality education to all.

RICHIBOY

Whenever possible, I encourage my student to discuss their own ideas, not individuals. What seems to work well was the fact that I had one-on-one sessions with learners who disrupt my class and record these incidents in my journal. I am teaching to more than two classes and these sessions are after school with the permission of the school principal. The grade head or the departmental head are always sitting-in in these sessions. To me it was as a way of correcting the behaviour and understanding the background of these learners much better.

UMATHI

I enforced discipline and am very strict with learners who do not cooperate. I have made sure that everyone in the group has a role to play and I monitored their participation in the group. The group leader must report on each and every one's participation in the group so that I as the facilitator know how to intervene. I also move between the groups and ensure that there is interaction in the group. To me, you have to stay positive and motivated when you apply this teaching method.

CHESCAR

Individually placing learners into a balanced group and controlling and monitoring the class environment and ambience.

PHAKAMA

What we can do is not to have group work especially with big classes. Rather work on the data projector to attract the attention of everyone.

PETRA

Makes use of extra-classes and intervention sessions. The best option is not to have small group work activities when you have overcrowded classes. When the environments are not conducive for teaching and learning, then there is no sense in working in small groups. Since learners are sitting in pairs, I would prefer this method as it is also cooperative learning.

MONWABI

Stop working in groups because it does not work in our situations and environments [large class sizes]. Rather start with small groups [half class size] and not trying to involve the whole class. Misbehaviour should be identified very early and reported to the principal. Learners who do not want to work in the group must first be encouraged, assess them when they report to the class or give everyone a responsibility to perform a job.

Appendix R: Interview transcripts with Life Orientation learners

LEARNER GROUPS (LG)

QUESTIONS:
1. Group processing
1.1 Tell me about your experiences in your group?
<p>LG 1 We worked well together. It was a good experience and to see that learners want to talk. That to me make me feel comfortable and belong to the group. It was wonderful and the friends was fantastic to work with. The group was an interesting group of learners which make you laugh at times. You feel you want to be in the group forever, except for some learners who make you negative at times [things that upsets you]. Learners who do not understand always keep them busy doing other things like re-arranging their books in their bags and picking-up papers on the floor. When others are presenting, they walk around in the class and ignore the rest of the group. You feel you have a responsibility towards the group and that you must not let them down. Our Life Orientation classroom is interesting and fun. We learn many new concepts we didn't even know that it exists. It was really fun doing investigations.</p>
<p>LG 2 Working in groups was good. We learnt to work together and listen to what the group members have to say. Everyone in the group has to participate and explain your task to the group. Members were eager to criticise and then you have to defend your opinion or otherwise they will not take your input. Some criticise just to make you feel negative and that your work is wrong, without listening to what you want to say. We understand each other and the activities were fun, even though sometimes we get more difficult tasks, but we enjoy it and still want to learn more. Member have different ways of interact in the group so to say that the group leader must warn them every time.</p>
<p>LG 3 The experience was good but learners did not participate as they should be and as the teacher explained it to us. I enjoyed the LO class and we need to learn, but sometimes the teacher was hard on us but we still enjoy the LO class. Learners make jokes and they distract you from the task. I sometimes complaint to the teacher about the behaviour of some learners and then it will be restful for a short time. It would be better if I could be with my friends that I am working every day and not the ones in which I was working in a group. I prefer my own friends who understand you better. I enjoyed the group because I could express myself and tell how I felt. Learner did what was expected from them. The members worked well together and we could help one another.</p>
<p>LG 4 We have worked well together and were listening to each other. Some members wanted to do everything until the teacher stepped in. Although the class was noisy and we are the group leaders, when we say, you are making noise they say "you too are making noise". It was a good experience when your work was accepted by the group, but it was not a good thing when the work of others were not accepted. The group leader was strict and demanded that everyone must say something. You know it is your responsibility to manage the group and everyone was looking to you when something happened.</p>
<p>LG 5 What I experienced is that we are learners with different abilities and the fast learners will help the slow learners to do their work right and so. One other thing is that we do not fight in the group we respect each other. We talk to those who want to fight, but they do not care and is repeating the same thing. We are deciding who will do what. Some learners like to make a noise while others concentrate on the work. I tell them to stop making noise because they are disturbing the other learners in the group or in the other groups.</p>
<p>LG6 It was first difficult to work with learners you do not know. Later on we mingled and was comfortable. There was learners who want to overpower us and not give us an opportunity to speak. The teacher easily warned them to behave and give everyone a chance to speak. When we must complete the</p>

task, some learners were doing their own things and were very noisy and the teacher could not notice them. They were noisy and rude to the group leader and sometimes ignored her. After fights the members work together and support those who could not give answers. I help my friend in the group and we work together without any fights. It was nice to see everyone wants to be the best when they report to the bigger group, which was interesting.

LG7

Our group was hardworking and all our efforts were our best. Group members were positive, except for those who wanted to take over. The group leader was strict and she did not mind what she was telling you when you were out of order. The teacher monitored the groups and was delightful with our group. He whispered to us by saying that we are a strong group and we must help other groups when we are done with our task. What I picked up was that members were listening to each other and showed that they care. I trust my group members with our task and the responsibility each of us to submit on time. Members were positive and motivated each other during the performance of the presentations.

1.2 In your opinion, describe the performance of your group?

LG1

Some of the learners refuse to participate and prefer to work on their own. Two or three learners in our group was not interested in the task at hand and they rather completed work from other subjects without the teachers noticing. Others were playing games on their cell phones and not concentrating on the task that we must finish. They were so not interested in the group work. The group managed to complete the activities in time and did not ask for extra time from the teacher. Every time we tried to be first to present our work cause the group was fast. Sometime our marks were not that good, but the teacher encouraged us to do better next time. I am proud of my group's performance and will try to do much better next time.

LG2

Our group was excellent in performance. We could respond in time when the teacher needs an answer or wanted to know who are finished. This gave us time to correct things that we were not sure of. Everybody tried their best in their individual tasks and when we must summarise, everyone could contribute.

LG3

Our group performed very well because group members have explained some of our tasks just the way we prepared it. What was difficult was when we disagreed on some answers. It was difficult to convince other members and try them to understand.

LG4

We were a fast and excellent group. Most of our presentations were good and the teacher praised us for that. Everyone in the group gave their best and our motto was "one success is everybody's success". That worked in our group. It was hard to get everyone to work as they have their small talks in the group. They share their own funny stories and laugh so that other groups looked at us. The teacher also raising his voice against us.

LG5

Everybody must participate. We advise each other and also unpacking when someone ask you that he do not understand. We are deciding who will talk in the group. It is a must for us to know each other. As the time passes you also want to participate and giving answers. We enjoy the experience in the groups. We share information, help each other and try to give the correct answers when the teacher asks for it. They must know that we are hardworking and we also expect them to give their best.

LG6

Our group was out to beat all other groups. Members listen to each other when they comment on the task. Everyone was happy when we get our results and it was good. Members trust each other and they listen attentively when one report to the rest of the class. Everybody give inputs and there one could see that all did their homework because the information was correct and spot on according to the teacher. I was discouraged because at times it feels that the group ignore you and you feel isolated and not belonging to the group. If it was not for the group leader, I would have told the

teacher that I want to be in another team. This was how I felt at the beginning when we work on our assignment.

LG7

It was difficult to work in this group. Learners were negative and they did not have any interest in the task that we have to complete. The teacher was on our case and every time he asked how far are we. That was not a good feeling and you could not change to another group. Member were not focussed and they stared out of the windows. Some was doing homework of another subject. They totally overpowered our group leader and there was a time where the teacher intervenes because our leader was crying. Although we trusted each other, some members were not contributing and was disrespectful. Others showed respect and wanted to know how far some members are.

1.3 How have your interactions in class with your peers changed over the course of this period?

LG1

At the beginning we agreed about opinions and answers, but later on we were divided about specific answers. We know each other for a long time and that was easy to interact with them. The group work was something else. You were divided into a group of learners that you are not working together every day.

LG2

We were very shy at the beginning but it improved later on. After the second or third day, one feels so comfortable that you were at ease to respond or to help members that needed assistance. We could debate and argue about certain content on our topic and you have also learnt to respect others opinions and viewpoints. One learns to accept others because some learners were very fast while others were a bit slow in responding to questions.

LG3

It has become better every time we were working in groups. It has grown and we were not as shy as we were at the beginning of the task. We start to trust each other and one could help when you see you friend does not know or want some help.

LG4

We learn to know each other and the relationship is so much closer now. It was good to show respect and not be noisy when one of our members was busy to report. When we make our contributions, we listened to each other and try to make notes when you heard any mistakes.

LG5

I don't know about the others but we must know each other. It is a must for us. Then as the time goes, we will be able to know each other better and the relationship will be much stronger.

LG6

Things has changed for the better. Members become very concern about others and just want to assist. All the bad feelings disappeared and you feel just to give your best to the group. To me this was very surprising to see how people can change over days. They motivate each other, wanted to know if you are fine and want to help. Unruly members were so quiet and could listen as if they know you for some time. One feels that you want to give your best and that our contribution must be valued by the teacher and other group members.

LG7

This was interesting to notice the change over time. Members in our group was so respectful, the teacher applaud us for the good behaviour and he was satisfied with us. We help each other and when someone not knowing what to do, we were there to help. We had a good relationship and have respect for each other. What the group leader does, he listens to all of us and we feel free to consult him. That was good.

2. Learners perception on working in groups

2.1 Explain your expectations that you have at the beginning with cooperative group work?

LG1

We were excited and working in groups gives me assurance that we will come up with the most suitable responses. We must ensure that everyone in the group understands what is expected from us and we cannot leave anybody behind. We all must take responsibility for the end product of the tasks and that we cannot blame one or another.

LG2

Normally our teacher let [instruct] us write down our expectations before we start with any form of group work. We must then present our expectations to the rest of the class. Our expectations were to work together as a group and to show respect to different opinions. We also agreed to listen when someone is responding in the group or must do a presentation to the rest of the class. We also agreed that it is important to have an understanding of the content that we will work with and that we must ask for help if you do not understand. Lastly, we agreed that everybody is equally responsible for the result or the success of our tasks, which is why all of us will participate fully in the group.

LG3

Our expectation was to working together. Some learners got fears on how members in the group will react because they know one another. Some were looking forward to make a success of the task because the mark they will obtain will depends on the participation of the group.

LG4

The group agreed that not all their expectations were met individually. They felt that they are about to learn new things and especially make new friends. Members expected that there will be quarrels and work against each other. Working together and not feeling afraid in making a contribution was good. Group members helped one another when you were struggling or when you were not sure about an answer. We wanted to be successful in every effort that we did. The group task and when you must look for information on your own was outstanding. Some members felt they do not want to be over-shadowed by others and they want to be acknowledged in the group.

LG5

My expectations go along with hardworking. We get attach to each other. It is that everybody must be hard working in the group. When you ask questions, you must make sure that the friends understand before they ask. I don't expect anything from my friends. There must be good behaviour in the group. They must not tease each other because I don't like it. It hurts me, I will get angry and you will be not focussed on the work. We must not say I am done; we must try to give answers. We are all equal and I am a hard worker. We must respect each other and not be rude.

LG6

My expectation was to meet new friends with whom I could work well together. I want to learn new things and that others will help you when you are not sure what to do. For me our group members must work together and encourage each other when things get tough. I do not want to be in a group where others want to dominate and want to hear their own voices. Hard work for me was the ultimate and I want to help all my other friends.

LG7

If we can trust and care for every member in the group, then I know I am in the right group. One must feel that you belong to the group and that members see you as important as they are. We must trust each other and have respect for one another so that we can rely on one another.

2.2 Are any of these expectations met or not? Please explain.

LG1

Not all of my expectations were met. To reach an agreement on some answers was difficult. At some point we have to go with the majority of members' opinions in the group and even when you feel that your answer is correct, you have to accept the opinion of the group. The work seems very boring and without any interest.

LG2

Yes. Some of our expectations were met. We managed to work together as a group, although some was lazy when we do the summaries for the presentations. We have learnt to listen to group members when they were talking and we encouraged them. It was hard just to accept some of the opinions of the group members, because sometimes you have a different opinion and then we started to argue about it. The teacher was assisting our group regularly, especially when we could not agree on certain aspects of the tasks. Members could easily understand when we debate on issues and they were open for help. The group leader emphasised that our contribution will determine our success of the task that's is why everybody participate and then we agreed on the final answer that will form part of the final summary of the task. We can say that most of our expectations were met.

LG3

Not all our expectations are met. Sometimes members in the group did not participate and one feel not to report them to the teacher. You do not always want the teacher to speak about our group or to refer to our group. One can say we manage to be tolerant in the group and to know that ever one understands the role they have to perform.

LG4

Yes. We learnt to listen and respect each other and worked well together. Those who wanted to dominate others were reprimanded by the teachers as well as the group leader. We make good presentations and other groups were on the brink to ask assistance from us. We helped them when we were done with our assignments. We also learn to trust one another, show respect and we sometimes encouraged each other not to feel bad when things were not so good.

LG5

When you are a hard worker you expect from your friends to be hard workers as well. When the teacher is around, we want everybody to be respectful, not to the teacher alone, but to the group members too. I just want to pass and I am not worried about the others to pass as well. I expect good behaviour from the group because it motivates each other.

LG6

We met new friends, but working together was not that good. Members start to trust each other and we manage to work well together. A few members in the group was concern about others and they offer their assistance during the activities. What I did not like was when someone take a lot of time and others just have to listen to them. My expectations were maybe too high and I did not think about what other expect in the group.

LG7

I am satisfied with my expectations in the group. We listen to each other, show respect and at times we try to help one another. What kept on disturbing was that, those who first want to complete their own work whether it is from Life Orientation or not, they have just don't care. A few of the members were ignorant and did not even listen to our group leader. That was frustrating, but in a way good to experience.

2.3 How is cooperative group work different to working individually?

LG1

In group work you have to consider different ideas and opinions. When you work individually you could easily form your own answers because you think that it is the correct responses. Group work allows you to review your responses and compare it with the other members' answers. Sometimes you find out that you are off the point and then other members could bring you back on track again. Group work also broadens your own point of views because members understand things not the same as you do.

LG2

Our understanding of cooperative work is that learners must be cooperatively involve in their groups. Groups are not that big because as far as we can remember our groups were normally consisting of four to five learners per group. Members will be responsible for the success of the group and to achieve the group goal at the end. This means that every member must take up their role very seriously and contribute to the best of their abilities. You learn to show respect to the different opinions of others in the group. Working individually is more frustrating because you are on your own and there is no one to help you. You are not open [keen] to ask for assistance from your peers or the teacher when things are not clear to you.

LG3

Cooperative work is to work in groups with other learners as members of the group. Everyone in the group has equal opportunity to express their views or opinions and you have to respect it. With all these views you realise how different members interpret a question and you can come up with a better answer. The group has a common goal to achieve and everybody must then participate to achieve that common goal. Every time the teacher allocates roles to everyone in the group and monitors so that you play an active role in fulfilling your duties in the group. Some members prefer individual work. Individually you can work on your own pace and no one tells you whether you are right or wrong. You take you answer as it is and wait for the teacher to give the right answer.

LG4

In the groups was many ideas, more options which ensured good success. It was not your opinion only that counts, but we learnt to listen to opinions of the other group members as well. You could tell the group when you were not sure about an answer, and they listen to you and help you when you were wrong. But in many instances, I prefer to be the note taker [scribe] or the reporter who will make the presentations of the group. I liked that very much. They encourage you first to write down your suggestions and then we will discuss when everybody is finished. Individually, you are isolated, on your own and sometimes not sure about an answer and there is no one to ask for help.

LG5

I prefer to work individual because in a group sometimes others do not understand the work then you have to explain it to them and I do not like that. I prefer to work in a group because you got all the information. To work in a group because if you do not know, one in the group can help you and if she does not understand something than I can help her. One learner prefers to work alone, I am not selfish but I cannot explain it to a group and I give up because I cannot help. You get more information when you work in a group.

LG6

I am a person who likes to work on my own. You can do much more when you are alone as compare to learners who work together. In group work there are fights and others do not want to work together. Then there is a struggle. For me I enjoy working with other members and they can help you when you are not sure. Members learn to trust each other and take care of one another.

LG7

We prefer to work in groups because when you need help any member can help you. Working alone is also good but when you need help there is no one to help. Members encourage others and they are so positive when we work on a task. They show respect and love and put other members before them first. Your thoughts that you have at the beginning of the group work has changed and you can now ask any one of the members without doubt.

2.4 Describe your interactions with your fellow group members.

LG1

It was difficult to feel at ease at the beginning when we were divided into groups because you were working with learners you are not on speaking terms or sometimes it was with learners with which you had a fight with. Learners sometimes ignore you when they see you do not participate. This was not that, but it was because you are afraid of answering wrong and learners will laugh at you. Because of the teacher's constant monitoring one later feels that you can speak at any time without anyone telling you. Some members in the group could quickly come up with wonderful ideas and that was good to learn from them.

LG2

One would love to work with the same group again. A few members do not agree and prefer to work individually if they can. The beginning is always difficult to get used with learners that you have never worked together. Later on things lighten up and group members could talk to one another, asking for help when things were not clear or you could have assisted members that needs help. We realised that it is important to do your best in the group or when you have to work on your own before reporting to the bigger group. Your contribution is just important as the final product of the group. Some group members were very outspoken and the group leader had to intervene timeously.

LG3

The interaction was good. We listen to each other and learn to show respect when a member speaks. Members who want to take over in the group was reprimanded by the group leader and at time by the teacher. I help my group members and motivate them to not giving up, but to try over and over again and when where things were not clear and at times ask assistance from the teacher if no one wants to ask. Some leaners indicated that they have become bored in the group because they were not given an opportunity speak. Other were excited, positive and encouraging their fellow group mates.

LG4

There was a lot of talk, laughing and hard work to mention. We felt comfortable with all group members although here and there members wanted to be "bossy". Members could easily ask for

help without hesitation and that was why the group was so wonderful. When we did not so well in the task, the blame was not put on one member, but everyone took the blame for it.

LG5

When you have the task, you must read loud so that other members can hear you. You must behave and be disciplined in the group. We need to respect one another. We help each other with the spelling of words in the task and where members are down, I ask them to be strong and try again. You must listen to the group leader, but sometimes the group leader is also wrong.

LG6

Members want to help each other and make sure everyone understands the work. We were positive and did not like it when some of our answers were wrong. For me was the way we work together and help each other. I remember when I could not respond to one of the questions that the teacher asks, one of the group members helped me softly without the teacher seeing. We work as one on our presentations and we were proud when the teacher calls the marks. With you helping others, we become positive and confident and start to believe in each other. This was much encouraging.

LG7

It was a big fight at the beginning. We could not understand each other and there was always a fight. The group leader plays an important role because with all misunderstandings the leader must intervene. I have great respect for the leader and for my other friends in the group. With the task it was not that difficult. We help each other and make sure we understand what is expected from us. Every one contributes and the teacher was satisfied with our work. The teacher only intervenes when no one of us know the answer to some of the questions and that was not likeable to the group member. One member was not eager to assist and support others, but want to claim the positive result as we did. That was unfair.

2.5 What have you learnt from your team members?

LG1

Some members were not keen on doing group activities and they prefer to work on their own. Members could listen to your ideas without making any comments or nodding that you are wrong. They allow you to finish what you want to say, some show respect for others opinions. You learn to tolerate one another in the group even if you did not agree with that group member. We have learnt to listen to the group leader especially when he/she said that we must pay attention or ask us if you understand the instructions.

LG2

Our team members were excellent. They have shown that you have to respect another member when that member is reporting to the group or to the class. We have learnt to accommodate the different opinions of the members and when we debated, you know that it was wrong to enforce your opinion onto others. We had to be tolerant when some were taken some time to report or when their notes were not there to present to the group. You have learnt to become a critical thinker when we were discussing information. Some found it interesting to resolve arguments and to conclude ideas when we have to summarise our information.

LG3

Learners learnt not to be quiet but to be positive and to speak their mind. They were willing to participate and to help members that struggles. They learnt to solve problems individually and in groups and to do your best when you have a task to complete before presenting to the group. You must respect other opinions especially when you do not agree with it. Some members can work fast while others are a bit slow and here you have to be tolerant with members. You learn to take responsibility of your task, the group and for the success of the group task.

LG4

Hard work was the key word. We learnt that at first you must have respect for all members of the group. When a member talks, you have to listen and show respect. Your individual contribution was just as important as the other members' contributions. Some members were not as fast as others and then you have to be tolerant with them. The group accept the idea that the group success is every one's success that is when you know you must give your best.

LG5

I have to ask for help from the stronger learner as well as to respect one another. And also learn to communicate. Understanding each other. In a group you need to combine – work as one. Work together. You must not be selfish; we must share information. I will answer and I will write for the group. I will listen to the questions. I will explain it when someone does not understand. Give advice and ideas. You must concentrate. I will do the presentation. You must not just be quiet in the group you, you must look around. Everyone in the group got a chance to speak out and give different opinions. Learners that was ashamed and not comfortable to speak, they will become confident and able to speak without fear. I have learnt to ask questions if I am not sure.

LG6

I learnt to care for each other and that you must be tolerant when you do things in a group. Members who want to dominate must be reported to the group leader or to the teacher. I learn that you must respect others no matter what they have done unto you. The cooperation of the group was terrific and that was a bonus to me. When member do not like to work together, you do not have to do the same, but to do the right thing. We shared ideas although we have differed from opinions, but you are allowed to give your understanding.

LG7

I have learnt about taking responsibility for what was expecting from you. Learners with a negative attitude have change to positive and they could now encourage you on your tasks. It was not that we agreed on everything, and that was difficult to convince the other member about your viewpoint. When learners ask for help I put my own work aside to help them.

3. Learner preparation

3.1 How will you contribute to the group?

LG1

By doing my share, meaning whatever my task in the group was about, that was what I must do, nothing more. To me was to assist anybody in the group who need some help and one later feel so good because you want to do more. I was able to take up any role that the teacher gave to the group members and what I liked most was the roles that have changed when groups were changed. To me it was that you got an opportunity to see in which role you perform the best.

LG2

It is important to look at the strengths and weaknesses of the group. It is my duty to make sure that I do my task to the best of my ability and that my contributions can be valuable. It is important to listen attentively so that you can highlight any parts that is not clear and to give advice on how to improve on certain issues. To help those members who are uncertain about the topic at hand and so that they do not feel they are outcasts and ignored, and to ensure that everyone contribute meaningfully to the group.

LG3

I must have a say in the group, but for the future I will come with ideas. The teacher - the role that you have to play must be sufficient and effective and must lead to the success of the group.

LG4

The best is to give your best to the group. Encourage members that do not want to work or are lazy in order to ensure group success. To share information with other members who do not have resources to get info.

LG5

I will give my best as from the beginning and then help learners that are not sure about an answer. It is important to keep the motivation level of our members high so that they must be positive. I will help, respect and let others feel they belong to the group. When I will be the group leader, I will give everyone a chance to speak, wrong or right, they will speak. That is not to force them, but so that they can learn to they belong to the group and that is where they want to be.

LG6

Important to me is to encourage my members. They must feel positive and wanted to work to the best. Best of all is to show respect and to listen to them. I will help those who do not want to take part or feel that they do not belong to the group.

LG7

I have said that I do not like group work and that is why I will not help other members. It will be my responsibility to help my group members and make sure they understand what is expected from them. I will encourage my friends and motivate them to do their best. It is to give your best and let everyone feel comfortable and that they can trust each other.

3.2 How will you help those who do not understand the work in order to improve their performance?

LG1

I will explain it in easy terms and make simple examples to them. To me it was best to ask the teacher to explain again than you know by now everybody understands it better and then we could exchange ideas in the group. Some members were not eager to be helped and to me they feel that you want to be the "boss" in the group. After everyone explained their ideas, those in the group that differ with the response must say why they differ. Sometimes it was just some definitions that were confusing, but after all everyone understands it well.

LG2

Members that do not understand must be given simple examples or must be allocated another part of the task in which they are comfortable with. Members will ask any other member of the group to assist those who do not understand or to whom the content is not clear, because we have a good understanding in the group. We learn to trust each other and I care a lot for everyone in the class. The last resort will be to ask the teacher to explain again to the individual or to the rest of the class so that everyone has a better understanding of the topic at hand. It is also important to encourage all members to take responsibility for the individual success and for the success of the group.

LG3

The best to help is to encourage them to learn, motivate them to participate and tell them to ask for assistance when they are in need of help.

LG4

It is best to explain things that they do not understand and if they still do not understand then the teacher must step in to help. We ask the teacher to explain to the group so that everyone can understand better. It is important that everyone in the group must have a common understanding on what we want to do so that everyone can participate in the activities. They must be advised to ask when they are not sure and not keep quiet in their corners, because this is a group that must look to everyone to be successful at the end.

LG5

I will explain the work to them so that they can learn. I will give examples so that my member can see and understand it. We must be focussed and not be bossy.

LG6

I will ask the teacher for help and not my friends in the group. I will look that all members understand and participate in the group work. Those who are not paying attention will be named and the teacher will know about the. Everybody must feel that they are equally important and that no one is more important than the other. Working together and have respect is the main thing in a group.

LG7

I will do my part and I do not have to do anything else and that is not to be selfish. We must take care of each other and working to the main group goal as such. Mine is to help the group leader when someone give him trouble and do not want to work together. I will give examples of the things my friends do not understand so that they can see the differences. Friends must not regard them better as others, because group work is not an individual thing, but a common thing that we all shared.

3.3 If you have noticed a difference in behaviour among your group members, why do you think there was a difference?

LG1

That was so obvious, but I think it was a lack of confidence, lack of knowledge. Some were afraid to be laughed at. Members later started to know each other and the relationships become more relaxed among members. Members that were quieter at the beginning, started to talk a lot and asked many questions and I think their confidence have become much stronger. **The teacher has move between**

the groups and ask if he can help us. Sometimes he looks at the work of some of the learners in the group and comment on their work.

LG2

Difference in behaviour was positive and negative. Learners that were not comfortable at the beginning, started to associate with others in the group and could speak freely. These members had developed self-confidence and a positive self-esteem. They have participated more than at the beginning of the project. Learners had developed a social relationship with the rest of the group and could assist at any time. On the other hand, some members just withdrawn from the group although the teacher had reprimanded them. These members were just waiting for the others to finish the task while some of them do half of the work. They appeared to be never-minded at did not care at all.

LG3

Everyone has a different opinion, different ideas and can come up with different arguments. Some finds it difficult at first to work with others in a group, but later learn to accept and respect one another. From a very unruly and disruptive behaviour, the group members are now understanding each other and shows respect to members.

LG4

The difference was because they realised that you have to fit in with the group. What you do is no more about yourself, but the group counts the most. Members have different opinions and you have to respect it, and not force your ideas down upon them. In working together with others, you must learn to listen and ask questions. One sees yourself in others when they behave unruly or disrespectful to other members. Members learn to be part of the group you must respect everyone in the group. It is not about yourself anymore, but the group.

LG5

When someone does not want to be in our group and walk away, she will come back later when she sees that we are serious about our work. The teacher monitors our group and he once tell members to behave and cooperate with the group. I like the idea when the teacher was moving group to group and help here and there in the groups. A group member that is not serious and do want to do the talking alone, will later change because the other members are not doing that. Another member feels that she knows everything [over-confident] and change later on as she sees how the others behave. Someone who are not involved in the discussion but want to speak all the time, she will later change and work with other members of the group. Members that was starring through the window all the time, that member will give attention now because we all are working. When a member does not want to be in our group that person must leave our group. We cannot force that person. When someone does not want to participate, you must try to convince that person to participate so that the group can be successful.

LG6

Members have change over the period of time. They are working together as if they know each other for a long time now. Stubborn learners are now the most helpful ones and do not want anyone to be behind with the work. Members with an ignorant attitude has now changed and are positive and just want to work. Some are very cooperative and behave well.

LG7

Some members have changed. Others are still the same and want to be chicky again. The quieted learners have now become talkative and want to let their voices be heart. Those who were so negative and discouraged others are hardworking and want to know whether everyone is fine. Everyone wants to be successful and when the teachers come to read the marks, members are waiting with full attention for the call of the teacher. That was very positive.

3.4 What will you do differently in order to lead your group to success?

LG1

Not to ask too many questions, but one at a time. Make things in the group interesting and perhaps more practical. One has to encourage one another so that they can feel special by giving them a specific role and responsibility. To me is to consider the value of everyone's input.

LG2

Things to do differently will be to encourage members to participate fully so that the group goal counts more than the individual goals. This is to ensure that the group will be successful in the execution of the tasks and that everyone participate. We will make sure that every member understands their task or the instructions on how to complete an activity. I will ask the teacher to have a look at our work before we submit it to the teacher. The different roles that will be allocated to member must be taken seriously and each member must take fully responsibility for their role given. Some prefer to be a group leader when groups are formed while others prefer just to be a member, but who will be actively involved in achieving the individual as well as the group goal for group success.

LG3

The importance is to allow everybody to have a say and that everybody feels that they belong to the group. Members must feel accommodated and secure in the groups and that everyone is equally important as each other. They must understand their role in the group and that we all have a responsibility towards the success of the group.

LG4

We would not try to do things differently because everything worked so well. Most probably is to encourage everyone to contribute and to understand that your contribution determines the groups success. Make sure that when you do not understand you get the assistance needed and try to accommodate all group members.

LG5

I will be representing my group if I have not got the opportunity because I have stage fright and I want to try. I will make sure that everyone asks a question and everyone understands the questions. We must try to help that member. I will do the same work and check that the work of the member is correct before give it to the teacher. In will make sure that everyone understands the question before we move to the next one... and everyone must feel comfortable. I will not let them just copy the work and they do not understand it. I will make sure that nobody is shy, because if someone is shy, other people will laugh.

LG6

I will encourage my friends and make sure they are comfortable with all member of the group. I shall like to be a group leader to order and instruct my members to do the right thing when needed. Those who are not certain on specific answers, I will help them and encourage them to relaxed and to give their best.

LG7

It will be a good thing to do. I will change all the roles that the teacher gave us and rotate it so that everyone will have the opportunity to be the group leader or the scribe. To me is to encourage members to participate and to ask for help when they are not on par with an answer. Presentations will be the first that I want to do, because I was not that good when I presented the work of my group in the class.

Appendix S: Learner classroom peer observation

TRANSCRIPTS

QUESTIONS:
1. Behaviour
1.1 How do learners behave within their groups?
<p>Mrs Thorps: Some were eager and others lazy or refused to participate.</p> <p>Mr Khazi: They behave differently. Some of them are free to experience their peers. Most of them like validation especially those who do presentation. Individual learners are periodically disruptive in and between lessons.</p> <p>Mrs Julz: Learners normally come up with sub-groups as they associate according to their likes. Some do not do anything as they expect others to do all the work for them</p> <p>Ms Carn Learners are much focussed but they displayed to be relaxed and enjoyable. Some groups are behaving well while only one to two groups are noisy. Others are consultative and help their friends and seems that they do not want to be disturbed.</p> <p>Mr Phaku Disciplined and engaging themselves in discussions. They are very much co-operative and they work well. Some are very disruptive and likes to bully each other. They behave badly so that they can fit in.</p> <p>Ms Petra Learners are actively involved and connect very well in the groups. They participate and do not want learners to disturb them. They listen to the one who speaks and reply only when the member is finished. The group behave well and they are discipline. Learners feel free to speak and are very enthusiastic and positive. The behaviour of groups much more disciplined, because one could easily move around and in between the groups. But what is good is that learners can work and be busy for some time.</p> <p>Mr Monwabi It depends at the argument at hand. Sometimes they cooperate and sometimes they are not controllable. They interact and enjoy. Some groups seem to be very talkative, while others are focussed on the task. This was very much only in the classroom where there was little space, a bit overcrowded and desks could be arranged in groups of four.</p>
1.2 Describe any form of positive or negative behaviour that you observed?
<p>Mrs Thorps: Learners were eager to complete graph. Most of the learners who started with the activities, simply banked the period or did not attend school. Learners want rewards for participating</p> <p>Mr Khazi: Positive behaviour. Most of the learners tolerate each other and have respect and understanding of each other. There are those few learners who have a tendency of not responding or participating.</p> <p>Mrs Julz: There is idea-sharing which can lead to new ideas coming out. The discussion seems constructive and learners are comfortable in the group. This is positive as it will assist the group members. They behave like old friends who knows each other well and do not want to leave the others behind. Members are close to each other and appears to participate well. Groups became disruptive mostly when there is no clear understanding of individual roles and learner took some time to settle down.</p> <p>Ms Carn Learners do not want to take break during intervals and want to complete their exercises on their own and in their own time. They do not want to break the connection of the group. Learners are</p>

discussing in the groups and just want to present their work without any fears. Whether it is wrong or right, they appear positive. Members are cautioning them to be quiet and be cooperative.

Mr Phaku

Positive behaviour. Sharing facts and participating openly in discussions. They enjoy each other and speaks without waiting for the group leader to guide them. Some are naughty and rude towards other group members. They do not want to listen. They are making noise and not doing the work and sometimes they back chatting. When a teacher is behaviour only when they enter the classroom and the teacher is outside and await the rest of the class to enter. Further on they become quiet and very much orderly.

Ms Petra

Positive: learners respect members and waiting till others finish speaking. Everyone listens to the group leader when she speaks. It looks that everybody knows what to do, because one is taking notes, one is having the final say like concluding, the group leader leads and sometimes clarify when there is clarity needed. They listen to the teacher when the teacher talks and could freely ask questions. There was no disruptive behaviour in these group in general.

Mr Monwabi

Learners talk while others are presenting and do not care. They try to come to an agreement when they argue. Groups became disruptive and learners took some time to settle down.

1.3 How was the motivation level of the group when doing this group investigation task throughout the project duration?

Mrs Thorps:

No motivation at all among the groups and they show no interest in their work and group performance. They talk about a reward and only then they will complete the task.

Mr Khazi:

Most learners enjoyed presenting and being part of the project was exciting for them.

Mrs Julz:

Initially the motivation was high but as everyone wanted their ideas to be incorporated into the project. Learners enjoyed the support of the group members and you could see that they are more confident and outspoken. There is happiness on their faces and that to me means a lot. These happy faces are open for communication and learning in their groups.

Ms Carn

Groups are excited and positive and cooperative in the groups. Members are reading information to others while they are listening attentively. Some members are continuously looking through the windows and their attention are distracted by things happening outside the classroom. Seems not interesting of what the groups are doing.

Mr Phaku

Highly motivated and eager to learn. They are co-operative towards their peers and respect each other. 68% - 78% motivated.

Ms Petra:

Learners are very focussed on the tasks and they speak about quality work must be presented. Members are happy and want to assist members all the time.

Mr Monwabi

It is very high [show a high level of cooperation and participation in their own group and among other groups] and one could see they are interested in views of others. By participating and engaging in group discussions. They encourage one another to work in order to complete the task on time. When someone is not certain about an instruction, the group members will make sure that such a learner understands what to do. They are really assisting on another.

1.4 How do learners respond to authority?

Mrs Thorps:

Only when the educator raises her voice, they start to listen and pay attention. They stop immediately and goes on with the activity.

Mr Khazi:

Others abide by the rules and others are rebellious. Not all learners respond or respect authority.

Mrs Julz:

Some learners respect authority though some are negative towards authority. This is shown by their negative attitude.

Ms Carn

Learners are listening and respecting authority while some are very ignorant to it. The teacher has to repeat what was said to them and sometimes had to threaten to take them to the principal's office.

Mr Phaku

Follow orders. They respond positively and sometimes negatively. Some are not able to take instructions and are very disobedient. They respond badly, they all want to have authority.

Ms Petra

Learners do show respect when the teacher and the group leaders talk. They listen and do immediately what is expecting from them. They follow the instructions and show obedience and not to the teacher only, but to other group members as well.

Mr Monwabi

They obey and become quiet when ask to.

2. Social skills

2.1 Explain the cooperation level among the groups?

Mrs Thorps:

In some of the groups only a few learners were interested in the task, while others' attention was elsewhere.

Mr Khazi:

It is 80% – 90% positive. Learners are very active in groups and they get noisy.

Mrs Julz:

Co-operation among groups was minimal as each group wanted to dominate over the others.

Ms Carn

Group members work well together and are showing respect to other groups. Listening to others while reporting.

Mr Phaku

Very co-operative and work very well in groups. The groups work and helped each other when they did not understand something.

Ms Petra

Learners are working well together in their groups. They cooperate with other groups and there is interaction between different groups and learners. They listen when a member speaks and pay attention. They trust each other and there is a way of inter dependent on each other. They encourage their members when they see they are shy and takes long to do the presentation of the group. Learners are relaxed and they enjoy one another. They show good understanding and love for each other.

Mr Monwabi

They do cooperate at a high level. Learner work as if they do not want to stop. They are serious and seems interested in their work. Do not want to be disturbed. They assist each other and members show signs of happiness and joy.

2.2 Was there any interaction among group members? If so, list reasons for these interactions?

Mrs Thorps:

Yes. To make sure that all of them understand questions; If they disagree then they call the teacher to mediate and give the final say. They try to solve the problem alone. If not all were participating.

Mr Khazi:

Yes, because different arguments came up amongst learners coming from different backgrounds. Learners discuss the tasks and they are laughing. Some are quiet and seems focussed on the work, while others are excited and look happy in their achievements. Learners disagree with each other on certain topics and sometimes they have to convince each other otherwise. They do not just agree without having an understanding, but learners indicate that they have an idea.

Mrs Julz:

There was no interaction. Everyone works on his own. This was a concern. Other groups are talking and listening to each other. The notetaker asks questions and then the group leader respond and give answers.

Ms Carn

Yes. Some were asking questions and others were assisted. Groups really find discussions and presentations interesting because merely everyone was discussing in their groups. The group leader was in the forefront and you could see that the leader wants to involve all the members of the group.

Mr Phaku

Group discussions. To discuss social behaviours. Yes, group work. So interaction is necessary. When learner see others struggle, they help them and you could see how satisfied they are. When they cannot solve a particular problem, they call the teacher and the teacher explain to the group or at times to the member only.

Ms Petra

Learners work together and help their friends in the group. Their voices are not loud when they discuss the task and you could see they are constructively busy.

Mr Monwabi

Yes, there was. When there are common answers or even when they disagree.

2.3 Elaborate on the following:

2.3.1 Communication

Mrs Thorps:

They did not communicate much about the questions. One or two learners took responsibility to complete questions.

Mr Khazi:

Learners were able to communicate with each other based on the information and knowledge they've acquired while doing the research.

Mrs Julz:

Intra-communication among group members was high but, inter-group interaction was non-existent.

Ms Carn

Communication among group members was good. Mostly all members of the group participate and are involved in discussions.

Mr Phaku

Group communication work best. Communication – keeping in touch with friends. Learners discuss some of the questions and you could see the facial expressions: some are surprised and others nodding their heads.

Ms Petra

Communication was effective amongst the learners and also towards educator. They respect each other. They gave everyone a chance to speak. They help each other.

Mr Monwabi

There was a lot of communication although you find few that are introverts. Respectful and orderly. By giving their peers the opportunity to voice their opinions. In some groups communication take

place simultaneously, whereby no-one is listening. They respect each other. They gave everyone a chance to speak. They help each other.

2.3.2 Listening

Mrs Thorps:

Learners did not listen attentively. Educator had to repeat explanations several times. They did not listen to each other's' opinions. One member just took the responsibility to complete the task.

Mr Khazi:

Other learners were attentive while other have short attention span. The group leader warns members that do not listen because they ask questions which on information that was discussed already.

Mrs Julz:

Listening is compromised as most learners want their views to be heard. They are listening very quietly to others and pays attention when others are speaking. Some learners are nodding their heads as a sign they are listening.

Ms Carn

In would call them attention giving learners. They have never interrupt others while they were speaking. Members are listening with interest and are making notes.

Mr Phaku

Listening is little, particularly when it comes from an authoritative position. Some attentively. Keeping quiet and using your hearing ability.

Ms Petra

Listening was attentively and engaging with educator and peers. If they did not understand they asked questions. Learners are making notes while they are listening, they are making direct eye contact without anything distracting their attention. The way they communicated shows that they accept criticism from members and could then continue working as if nothing has happened.

Mr Monwabi

It depends on whether they agree or disagree, but they sometimes reach an agreement. You can read it in their body language. By asking questions and responding to an individual's input.

2.3.3 Problem solving

Mrs Thorps:

Just few learners were able to solve problems completely on their own.

Mr Khazi:

Knowing the steps of problem solving was not difficult for the learners to solve the given problems.

Mrs Julz:

Solving problems is enhanced and strengthen as more ideas come from different learners towards finding a solution. Learners argue for some time on problems, but reach consensus on how to clarify them.

Ms Carn

Members could argue rationally and they have never stop looking for solution to solve problems. When they are uncertain, they called the teacher to explain to the group of only to one or two learners in the group. While the teacher is explaining, others are listening as if the teacher is talking to them.

Mr Phaku

This skill needs to be developed amongst them. It is lacking. Using different techniques to solve problems.

Ms Petra

Learner are using different techniques to solving problems. They are comparing and show their techniques to the group members, explain it and you could see the satisfaction on their faces [relief].

Mr Monwabi

In a way they do problem-solving with the guidance of the teacher.

2.3.4 Work independently

Mrs Thorps:

Learners struggle to work independently. They constantly need assistance from educator.

Mr Khazi:

80 – 85%. Were able to work on their own while the 15% needed some assistance.

Mrs Julz:

Working independently is compromised as group ideas have to be incorporated and degree of independence is compromised. When they [the group] presenting, they show confidence and respect by listening with open ears as individuals and are very excited and cheerful. Some enjoy the show and want to be in the limelight.

Ms Carn

Some groups are struggling at the beginning and has asked for help, first from the group members and then from the teacher. Later on groups are working on their own and do not need any help from the teacher anymore.

Mr Phaku

They are not able to work independently. Self. Doing your work on your own.

Ms Petra

They were able to work on their own.

Mr Monwabi

Some of them does but most participate in groups.

2.3.5 Resolve conflict

Mrs Thorps:

Learners talk openly to one another. They criticise and correct in a responsible way while showing respect to each other. They have learnt to take the blame when they did something wrong.

Mr Khazi:

They work easily because they understand each other very well, since they are all from the same community.

Mrs Julz:

Conflict resolution, takes long to solve as conflicting ideas come up leading to conflicts within the group. By listening to one another, being assertive and communicating their feelings, also mediation by the facilitator.

Ms Carn

Conflict was only observed in two groups from the seven. Others could easily resolve their conflict while in some instances the teacher has to come and intervene. Arguments are loud and so much disrespectful to the teacher and to members of the group.

Mr Phaku

Not at all. They are unable to resolve conflict. Some are using a mediator ... there has to be a disciplinary committee. One of the group members acting as mediator during a conflict.

Ms Petra

Learners experience difficulty in resolving conflict issues. They argue and debate tirelessly but it seems that they will not reach an agreement. The group leader tries to resolve the conflict, but it seems that the issue is difficult. Afterwards they are calling the teacher.

Mr Monwabi

They only resolve conflict with the guidance of the teacher.

2.4 How do learners share knowledge and resources in their groups?

Mrs Thorps:

They were keen to provide others with information. Again, academically stronger learners took the leading role and share knowledge with much weaker learners, especially during presentations,

Mr Khazi:

They could share knowledge as they all are coming from different background, and some of them their family members are resourced compared to others and their exposed to different preferences.

Mrs Julz:

The groups consist of various abilities, thus stimulating the dependence on each other. Learners help each other without disturbing the rest of the group. One learner encourages the other member who seems to have lost interest in the task. Learners share their knowledge but sharing resources is compromised.

Ms Carn

Members show others their information and they are discussing it. They feel good to share their resources with those who do not have and the openness is observable on the faces. Some who have highlighters shared it with others to highlight their important information.

Mr Phaku

They work well in groups, but at the same time you must guide them. By discussing and coming with real life experiences. Come to a decision. They work together and share with their group members. When a member needs a ruler or glue, they borrow from the other members in the group. Resources are shared amongst the members.

Ms Petra

Learners made use of peer teaching and shared resources. My general observation is that, as mentioned before, learners could show where someone did wrong, correct it and continue with their task. They are open to share, although it is sometimes the stronger learners who are on the forefront.

Mr Monwabi

They share it very well, there is no selfishness. By helping each other and making resources available within their respective groups.

2.5 Describe how learners are aware of the role they have to play in their groups?

Mrs Thorps:

They were not interested in any roles, they just want to complete the task, regardless if information is wrong or not. Learners do not respond to the teacher who want them to say something. Learners are never-minded and do not worry about each other and the teacher.

Mr Khazi:

Learners were able to do their duties as per decision by the group. Every learner get a role to play in the group.

Mrs Julz:

Some learners perform their tasks with passion and seems they enjoy it. Learners have paper note on which they make notes and write on it. Others sit back and expecting all others to do their part.

Ms Carn

The group leader reminds members of their roles that were indicated by the teacher. The group leader always reminds them about their role. When they do not want to work together, the group leader always takes the initiative to lead the discussions and tell them what their responsibility was. Members are nodding their heads.

Mr Phaku

They are aware on that there should be a chair and a scribe and the others should be able to report. They all have roles to play, e.g. team leader and participants. They are all assigned in groups and given roles.

Ms Petra

They know that each input given makes a difference and help in achieving the groups' success or goals. Their inputs are being written down and are used as possible answers in the tasks. Everyone in the group is busy with his /her part of the task and prepare themselves for the time to report to the group. Some show their work to their friends and they smile. They indicate that they agree or are satisfied after looking to each other's notes.

Mr Monwabi

After the educator explain to them, they do perform their duties as expected. Members in the groups ask if they can help their team mate, but the teacher does not allow that. The teacher responded let the members finish first and then we will see does that member still need assistance. They were aware that everybody's input is valued and that in group work it is not about the individual, but it is about the group and the group's success. So, they have realised that all inputs are equally important, though they differ in terms of intellectual and emotional abilities.

3. Working skills

3.1 Explain the type of cooperation learners made to their groups?

Mrs Thorps:

By agreeing on certain answers or ideas.

Mr Khazi:

Every learner participated in their groups effectively. They are motivated and want to show their friends that they can stand on their own feet. Learners with a good self-esteem can be seen by three of these group and because of their physical appearance they are confident and jokey.

Mrs Julz:

There was co-operation on duty allocation and then working as a team to resolve the problems. They help members that need attention [difficulty with task] till they are fine. They accept the help in a positive light and you could notice the satisfaction on the faces.

Ms Carn

Cooperation was good and they want to inspire one another. A matter of positive spirit was among them while they wanted to be the best. The inter-relationships were good because you could see the joy in the groups, they understand each other and they are talking as if they want to make sure everyone understands.

Mr Phaku

Giving each member a chance to speak and one person at a time. Work together and share ideas. The learners all gave suggestions.

Ms Petra

Each learner had a responsibility and had to give their ideas.

Mr Monwabi

They assist one another by explaining, discussing and listening to one another.

3.2 How are groups held responsible for individual learning?

Mrs Thorps:

By encourage them to work individually as well as part of a group. The group leaders are playing an active role in their respective groups by ensuring that everyone in the group understands the instructions and the task. Discussion in the group ensures that everybody is on par and knows what to do.

Mr Khazi:

Each learner had a task to do. No one was dependent they all had to do something in their groups. The group leader speaks to them before they speak to the whole class.

Mrs Julz:

Groups do not normally take responsibility for group learning, since they do not have the power to enforce each member to play their roles. What I noticed is that everyone makes sure their work is correct. Learners blame those whose work is incorrect and those members do not feel good afterwards. Some in the group likes to blame others and that learners seems to work on their own

without the group. Learners isolate themselves from the groups but this only happens when there was a disagreement or a blame game.

Ms Carn

Members are bringing their contribution to the table and your individual work determine what have you done on your own.

Mr Phaku

Each group member should contribute to the topic at hand. Each one teaches one. The members of the group should individually listen when a teacher is teaching.

Ms Petra

By sharing different methods and peer teaching. Teacher is monitoring each learner's work, and give guidance.

Mr Monwabi

They were giving a task to do individually and must answering the questions.

3.3 How are groups accountable for the work and for the achievement of each member of the group?

Mrs Thorps:

By encouraging independent thinking as well as the skill to adhere to group decisions.

Mr Khazi:

Learners should come up with accurate statistics and dates in their research. They should bring their resources to school.

Mrs Julz:

Learners were first very never minded about the performance of the group. Later on, they have started to know each other better and showed a way of respect to each other. Soon they have realised that they are all accountable for the group's success and therefore have to make sure that everyone in the group grasp the content, understands the task and to deliver their best. They started to accept other's opinions as at the end and after corrections, it will form part of the groups' achievement.

Ms Carn

Every member must report to the group and that is how the group determine the quality of work of each member. Every member tells the group leader how they feel about the contribution of the member and the leader gives a final opinion on it. Groups agree that individual contributions determine the group success.

Mr Phaku

They are accountable by reporting back about the deliberations. They praise each other as those achieved get certificate and rewards. They are given good marks.

Ms Petra

By means of presenting the work done by the group and also each part a group plays.

Mr Monwabi

Each member of the group is given a task to do research and come up and present to the group. Every learner within a group receives a responsibility in order to complete the task on hand. They are reminded that each one is responsible for the success of the group. In the classroom the group leader was reading through the work of other members and nodded her head. After that the learner raised her hand to get the attention of the teacher. They all smiled.

3.4 Tell us more how groups respond to the timeframes on a task?

Mrs Thorps:

Learners were not able to complete it at given time. They need a few periods more. Learners in groups cannot finish in time, they argue that the time was too short and they need more time. Some are becoming anxious, while individual learners within groups are trying to refocus them. Learners behave as if they are under pressure, and some is nervous to participate.

Mr Khazi:

Most of the learners adhered to the set time apart from the few who delayed. Timeframes to the groups was very important. Groups have timekeepers which they appointed for themselves. What was holding most of the groups back, was the slower learners who could not finish their duties in time. In general, the teacher has given such groups extra time because the group have learners with different abilities, slow and fast. They never work without helping the other members of the group.

Mrs Julz:

Groups wanted to finish their tasks on time but could not and they rather getting angry to those that delay the group. At some point the group leader warn the groups not to put pressure on the members and allow them to finish on their own pace. Members keep themselves busy with other work, but not the task. In some groups, learners walk to other groups where their friend are to have small talks with them. They show an attitude of ignorance and don't care. This behaviour was disrespectful to other group members and to the teacher.

Ms Carn

Groups complete their tasks in time because they do not want to be mentioned by the teacher that they are the only that is still busy. Sometime members become angry with those who are a bit slower in providing the information. Other members are helping those who struggle and encourage them to do their best to finish.

Mr Phaku

They work hard, in order to reach a deadline of a task. The group leaders constantly remind the rest of the members about the rules to which they have to adhere to. The fact that the leader had to remind them, has ensured that they have accept the rules and listen to it every time it was mentioned. The main focus was now that they must work according to time limits. There was excitement in the group when they finish in time and the teacher praise them. Learners show that they trust their group members and do not want to disappoint each other.

Ms Petra

Some did not do it in the prescribed time frame, it had to be extended. Some learners could not focus too long on the task then they become a nuisance to the other members of the group. They tease learners in other groups and distract their attention from the work they do. Learners got frustrated while other ask the teacher to speak to those who disturbed them.

Mr Monwabi

To be honest there were some who did not honour the due dates and timeframes. Many learners in the group rather watching learners playing outside the class. It looks as if they were so interested in what was happening outside. Group members try to encourage them to focus and keep their attention to the task of the group.

3.5 Discuss how groups focus on a classroom reward system?

Mrs Thorps:

It encourages them to try harder. However, focus was on the reward of the task at hand.

Mr Khazi:

Knowing that there is a reward at the end every learner put in their best. By encouraging one another

Mrs Julz:

Member are very excited to work towards a reward. They encouraged each other to give their best so that the group must get the first reward. At some areas when the group does not receive any award, members are very angry. The teachers warn that members must behave and be tolerant to those who can't finished in time. This sometimes bring misunderstanding among group members and they become disruptive and unruly.

Ms Carn

Groups are energetic and want to get the reward. They encourage every member to contribute positively in order to ensure group success. Some members are cross with those who delay and be a kind of a stumble blog not allowing them to get the reward. The teacher rewards every group and it does not mean whether you are finishing at the end or be first.

Mr Phaku

They really focus, because they are aware that they will be rewarded.

Ms Petra

They responded positively. After realising that have to trust each other, relationships have grown better. They have now started to support each other and try to improve on the participation of the group. These better relationships have led to a better group achievement and that everyone could feel part if they receive a reward. They have started enjoying the reward system.

Mr Monwabi

Depends on their performance; if done well they become excited; some do not even feel sorry for their poor performance.

Appendix T: Certificate of editing

EDITING SERVICES

To whom it may concern

This letter serves to confirm that editing and proofreading was done for:

Aloysius Claudian Seherrie

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