THE EXTENT TO WHICH COOPERATIVE LEARNING, AS OUTCOMES-BASED EDUCATION METHODOLOGY, HAS AFFECTED SOCIAL INTERACTION AMONG LEARNERS IN THE FOUNDATION PHASE IN THABONG SCHOOLS

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DECLARATION

I declare that :"The extent to which cooperative learning, as Outcomes-Based Education methodology, has affected social interaction among learners in the foundation phase in Thabong schools" is my own work, that all the sources used have been acknowledged by means of complete references, and that this mini-thesis was not previously submitted by me for a degree at another university.

M D MOLOI

WELKOM

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DEDICATION

This work is dedicated to my family. To my wife, Seipati Maureen and my two sons, Tshele and Lehasa. All of you give me a reason to live and to strive for better and bigger things in life. In everything I do you are always at the back of my mind.

Yours truly

M D Moloi

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ABSTRACT

THE EXTENT TO WHICH COOPERATIVE LEARNING, AS OUTCOMES-BASED EDUCATION METHODOLOGY, HAS AFFECTED SOCIAL INTERACTION AMONG LEARNERS IN THE FOUNDATION PHASE IN THABONG SCHOOLS

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The aim of the study is to establish the extent to which cooperative learning, as Outcomes-Based Education methodology, has influenced the social interaction of learners in the Foundation Phase in Thabong schools. The researcher wants to establish the effect of cooperative learning on the social interaction of learners. The researcher also wants to determine the degree of influence that cooperative learning has on the social interaction of learners.

To achieve the above aims, the researcher used qualitative research as the research methodology. Qualitative research is preferred because it is useful for describing the perspective of research participants towards events, beliefs, or practices. The research tools that are used are interviews and observation which help investigate behaviour as it occurs naturally in non-contrived situations.

The findings of this research are that cooperative learning enables learners to attend to their school work whilst they interact socially. Cooperative learning also enhances leadership qualities because cooperative groups have leaders and scribes. The relationships of groups are also characterised by conflict and harmony which are attributes of normal social interactions.

The researcher concludes by asserting that cooperative learning should be extended to all education bands because the research that was conducted has found cooperative to have a positive effect on the social interaction of learners.

Key words

Cooperative learning, Outcomes-Based Education, social interaction, naturalistic observation.

CHAPTER ONE

ORIENTATION TO RESEARCH

1.1 INTRODUCTION

In this study an attempt is made to establish the extent to which cooperative learning, as an Outcomes-Based methodology, has affected social interaction of learners in the Foundation Phase in Thabong schools. Adams, Hamm, Drobnak and Lazar (1996:3) define cooperative learning as learning that involves working together to accomplish shared goals that are beneficial to individuals and the group. Learners are able to learn together and perform alone in an environment that allows them to actively construct knowledge.

In cooperative learning, the group can be successful only if the educator provides adequate instruction and orientation (Farmer, 1999:2). The educator's direction should also be accompanied by assessment so that learners can measure their progress against some objective.

South Africa became democratic in 1994 and found herself faced with the challenge of having to address the past imbalances created by the previous sectorial system. This culminated in the introduction of Curriculum 2005 in 1997 which had Outcomes-Based Education as its teaching and learning strategy. Kruger and Van Niekerk (1998:6) regards outcomes-based approach as a holistic and integrated approach to teaching and learning. In this approach, the learning experiences are developed in an integrated way, enabling learners to apply knowledge acquired in one learning area to other learning areas and to real life situations. For instance, steps learned in the construction of a puzzle can be applicable to the solution of a mathematical problem.

At this point, the role played by cooperative learning as the teaching and learning strategy of Outcomes-Based Education (OBE) methodology cannot be over-emphasised. In the classroom, the physical arrangement is such that the learners are divided into groups and the sitting arrangement encourages group work in the form of cooperative learning (Kruger & Van Niekerk, 1998:25).

According to Kruger and Van Niekerk (1998:26) the following factors should always be kept in mind when organising the physical environment:

- the room must be arranged in such a way that all learners see the chalkboard, overhead projector, or other displays;
- the classroom should be designed with the educator's own and learners' traffic patterns in mind;
- since the activities presented are developed for maximum participation by all learners, the classroom arrangement should ensure that nobody is excluded from taking part. Therefore, due consideration should be given to the needs of learners with special barriers to participation such as hearing, visual or mobility problems.

1.2 DEFINITION OF CONCEPTS

1.2.1 Cooperative learning

This refers to a type of learning where group work among learners is emphasised. Cooperative learning involves working together to accomplish common goals (Adams, Hamm, Drobnak & Lazar, 1996:3). In addition to the academic task, a social task is involved because interaction, usually face-to-face, marks a successful social characteristic of cooperative learning (Farmer, 1999:1).

1.2.2 Outcomes-Based Education

Olivier (1999:1) defines outcomes-based learning as "learning based on intended end results, as opposed to traditional input based learning. It is based on what learners want to achieve and then work backwards to determine what is needed to achieve it".

1.2.3 Social interaction

According to Ressler, Boothby and Steinbock (1998:141) social interaction implies living together in harmony with others and demands adherence to social rules. It is reinforced by parents through childrearing training in the need for sharing, communication and interdependence (Ressler *et al.*, 1998:141).

1.2.4 Naturalistic observation

Gay (1992:234) refers to naturalistic observation as observation of behaviour as it naturally occurs. In such situations the observer purposely controls or manipulates nothing. The intent is to record and study behaviour as it normally occurs, and the observer works very hard at not affecting the observed situation.

1.3 SIGNIFICANCE OF THE STUDY

Cooperative learning requires the educator to divide the learners into small groups for it to be effectively implemented (Lemlech, 1994:78). This division of the learners is beneficial to educators in terms of a reduction of the workload. The educator allocates marks to groups instead of each learner receiving an assessment mark of their own.

Learners also benefit from cooperative groups. They are able to enhance their leadership skills by taking different roles in the groups because groups have to

have leaders who report on behalf of the group, and scribes who take notes on behalf of the group.

1.4 PROBLEM STATEMENT

The introduction of Curriculum 2005 has brought about many changes in the South African education system about which Kruger and Van Niekerk (1998:4) has the following to say :"the work of a teacher has changed considerably over the past few years, changes in the approach to teaching and learning and many more". From these statements the following questions arise:

- To what extent have the changes in the approach to teaching and learning affected the social interaction among learners in the foundation phase?

- What is the effect of cooperative learning on the social interaction of learners?

- How has cooperative learning, as an integral part of OBE, influenced social interaction among learners in the foundation phase?

These questions will lead us to the aim of the study.

1.5 AIM OF THE STUDY

The aim of the study is to establish the extent to which cooperative learning has influenced the social interaction of learners in the foundation phase in the Thabong area. The following objectives will help in the achievement of this aim:

- to establish how the changes in the approach to teaching and learning have affected the social interaction of learners;

- to establish the role of cooperative learning in the social interaction of learners; and
- to determine the extent to which cooperative learning has influenced the social skills of learners.

1.6 RESEARCH DESIGN

1.6.1 Research methodology

1.6.1.1 Qualitative research

Tuckman (1988:388) describes qualitative research as research that studies events in their natural settings. Qualitative research has the following five characteristics or features:

- the natural setting is the data source and the researcher is the key data collection instrument;
- the researcher attempts primarily to describe and only secondarily to analyse;
- the concern is with the process, that is, with what has transpired, as much as with product or outcome;
- its data are analysed inductively, as in putting together the parts of a puzzle; and
- it is concerned essentially with what things mean, that is, the why as well as the what (Flick, 2002:4).

1.6.1.2 Interviews

Interviews are used by researchers to convert into data the information directly given by a person or subject (Tuckman, 1988:213).

By providing access to what is inside a person's mind, this approach makes it possible to find out what a person knows (knowledge or information), what a person likes or dislikes (values and preferences), and what a person thinks (attitudes and beliefs) (Tuckman, 1988:213).

Unstructured interviews are preferred for this study because they are more flexible and the questions asked are more of a general nature (Tuckman, 1988:214). An in-depth analysis of the types of interviews, interview questions, and how to conduct interviews will be done in subsequent chapters.

1.6.2 Data collection

Data will be collected from primary schools in Thabong. Thabong consists of seventeen primary schools. Only three primary schools will be randomly selected because of financial constraints. Two educators and six learners from each of the three schools will be interviewed. Interviews will be conducted during break and after school in any room which will be made available at the school.

1.6.3 Data analysis

Responses from interviews with learners and educators will be analysed. Information gathered from these responses will be combined with information obtained through naturalistic observation and patterns of social interaction inside the school premises will be established. These patterns of social interaction will be indicative of the extent to which cooperative learning has influenced the social interaction of learners.

1.6.4 Samples

Thabong consists of seventeen primary schools with a population of about

13 600 learners. A stratified random sampling technique will be used to select three primary schools. From each school, focus will be placed on only two classrooms and three learners and one educator from each class will be interviewed. In all, two educators and six learners from each school will be interviewed.

1.7 DELIMITATIONS OF THE STUDY

The interviews and naturalistic observation will be conducted in the Goldfields in Thabong. Only foundation phase educators and learners will be involved. The research falls under the sub-field of educational management.

1.8 LIMITATIONS OF THE STUDY

Due to time and financial constraints the following limitations are found:

- only foundation phase educators and learners will be included in the study;
- no farm schools are included in the study; and
- no former Model C schools will be included.

1.9 RESEARCH PROGRAMME

Chapter 1

This is an introductory chapter which gives background to the study. It attempts to answer the question as to why the study was carried out and what was the need thereof, the methods that are going to be used and how the study was demarcated.

Chapter 2

This is a theoretical chapter based on literature study and will concentrate on the nature of cooperative learning as an integral part of Outcomes-Based Education. The researcher will start by discussing OBE and will show how it promotes cooperative learning. The researcher will further give a critical discussion of cooperative learning.

Chapter 3

This chapter will focus on the research itself. It will show how data was collected and will also show the questions that are asked during the interview and how the learners responded. It will also include the observation schedule.

Chapter 4

Responses from chapter 3 will be analysed and interpreted. Observed data will also be presented and analysed.

Chapter 5

Results obtained in chapter 4 will lead to findings. Recommendations will also be made.

1.10 CONCLUSION

This study hopes to establish the extent to which cooperative learning influences social interaction among learners in the foundation phase in Thabong. If the results are positive recommendations will be made with regard to the extension of cooperative learning to all other phases of education.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Curriculum change in post-apartheid South Africa started immediately after the elections in 1994 when the National Education and Training Forum began a process of syllabus revision and subject rationalisation. The White Paper on Education emphasised the need for major changes in education and training in South Africa in order to normalise and transform teaching and learning. It also stressed the need for a shift from the traditional aims-and-objectives approach to Outcomes-Based Education (Department of Education, 2002:8).

In this chapter focus will be placed on the history of OBE and the reasons for its adoption in South Africa, as well as an in-depth analysis of cooperative learning and how it affects the social interaction of learners in the Foundation Phase, namely, grades R - 3.

2.2 OUTCOMES-BASED EDUCATION

2.2.1 Background

Research on Outcomes-Based Education started in the 1970s in the United States of America with an educational programme called the Outcomes-Driven Developmental Model (ODDM), which begun in 1972 in the Johnson City, New York (Evans & King, 1994:12).

To discover the origins of OBE also requires a look outside education at the social forces exerting pressure on schools in the United States. In the1970s, the

growing realisation that schools were failing at their basic mission, coupled with the belief that schooling is important for success in the world, led several groups - parents, taxpayers, legislators and business leaders - to demand evidence of student achievement (Furman, 1994:48).

The popularity of OBE in the US stems from several key ideas in American education developed over the past 30 years. These include the use of objectives to guide instruction, the principles of mastery learning, and the movement toward criterion - referenced assessment. For these reasons OBE is viewed as a melding of these trends into a coherent reform that addresses many current ills in education (Furman, 1994:49).

In South Africa, the previous content-based education was discarded in favour of OBE upon realisation that the purpose of education and training is to prepare learners for life in society and for performing a job (Olivier, 1998:21).

Content-based education fell short of this aim because it focussed on the individual who had to master a syllabus, whilst developing thinking and reasoning skills. This practice does not relate to the world of work where people have to produce end results according to agreed job description (Olivier, 1998:21).

Spady (1994:1) regards Outcomes-Based Education as a means of clearly focussing and organising everything in an educational system around what is essential for all learners to be able to do successfully at the end of their learning experiences. This means starting with a clear picture of what is important for learners to be able to do, then organising every aspect of the education system, that is, the curriculum, instruction and assessment to make sure that the learners ultimately attain success (Spady, 1994:1).

According to Spady (1994:1) the keys to having an outcomes-based system are

the following:

- developing a set of learning outcomes around which all of the system's components can be focussed; and
- establishing the conditions and opportunities within the system that enable and encourage all learners to achieve those outcomes.

Spady (1994:2) defines outcomes as clear learning results that learners will demonstrate at the end of significant learning experiences. Outcomes are what learners can do with what they know and have learned - they refer to the tangible application of what has been learned. They refer to actions and performances that reflect learner competence in applying content, information, ideas and tools successfully (Spady, 1994:2).

2.2.2 Principles of Outcomes-Based Education

Outcomes-Based Education is based on the following principles and underlying beliefs:

- all individual learners must be allowed to learn to their full potential (Kruger & Van Niekerk, 1998:7). This means that both educators and learners must have high expectations for successful learning to take place (Van der Horst & MacDonald, 1997:7);
- success breeds success, and it is for this reason that learners must be provided with possibilities of experiencing success (Kruger & Van Niekerk, 1998:8);
- educators are charged with the responsibility for creating conditions under which learners can succeed. These conditions affect classroom organisation, classroom communication and the classroom atmosphere (Kruger & Van Niekerk, 1998:8). All conditions prevailing in the classroom should encourage active learning (Van der Horst & McDonald, 1997:7);

- all stakeholders in education, such as the community, educators, learners and parents are all cooperating partners in education (Kruger & Van Niekerk, 1998:8). They should participate both in curriculum development and implementation (Van der Horst & McDonald, 1997:7).

2.3 COOPERATIVE LEARNING

2.3.1 What is cooperative learning?

Adams, Hamm, Drobnak and Lazar (1996:3) state that cooperative learning involves working together to accomplish shared goals that are beneficial to individuals and the group.

According to Topping (1988:2) in a cooperative structure, as one learner achieves, others automatically achieve. Cooperative learning involves a structured group of people who have a specific learning task to accomplish together. Every group member contributes. Both group results and individual accountability are necessary components of effective cooperative learning (Farmer, 1999:1).

For the purpose of this study the definition by Farmer (1999:1) will be used.

2.3.2 Elements of cooperative learning

According to Adams *et al.* (1996:8) cooperative learning works best when all of the following elements are in place:

- positive interdependence;
- face-to-face interaction;
- individual accountability;

- personal responsibility for reaching group goals;
- interpersonal skills; and
- group processing.

Each of these elements will be briefly discussed.

2.3.2.1 Positive interdependence

Positive interdependence can develop only when learners recognise that they can only reach their learning goals when everyone reaches their goals. All the learners contribute equally in planning their learning outcomes (Reed & Bergemann, 1995:74).

2.3.2.2 Face-to-face interaction

Groups that interact and discuss issues more tend to be more successful than groups that do not interact (Prodromou, 1992:46).

2.3.2.3 Individual accountability

Group members should take personal responsibility for doing a fair share of the group work. Individual tests may be given and educators can observe learners doing the task at hand or teaching what they have learned to someone else (Topping, 1988:8).

2.3.2.4 Personal responsibility for reaching group goals

Group members can divide the task given equally among themselves and decide on deadlines on which group members will meet to discuss what has been accomplished (Donald, Lazarus & Lolwana, 2002:174).

2.3.2.5 Interpersonal skills

Group members should be aware of the strengths and weaknesses of all members so that members should be placed appropriately during the sharing of tasks and assignments. This is characteristic of cohesive group members (Schmuck & Schmuck, 1992:156).

2.3.2.6 Group processing

Group processing involves the group reflecting on how well they have worked together, what individual actions were helpful and what might be done to improve the teamwork in the future. The combination of learner and educator processing is a way to put the focus on positive feedback and improve individual effectiveness in contributing to the achievement of group goals (Donald *et al.*, 2002:181).

2.3.3 Types of cooperative learning groups

The structure of cooperative learning can vary in its implementation. Some models are the following:

2.3.3.1 Buzz session

Buzz groups pool ideas in response to presented concepts. The educator outlines ideas, defines tasks and roles for the groups, sets the time limit and floats from group to group (Schmuck & Schmuck, 1992:198).

2.3.3.2 Snowballing

In snowballing, the class in divided into pairs to discuss the topic: The

first pair reaches consensus and then joins another pair; the two pairs reach consensus and then join another quartet. Eventually the entire class becomes one group with one consensus response (Schmuck & Schmuck, 1992:47).

2.3.3.3 Numbered heads together

The educator divides the class into groups of fours. When the educator asks a question, the groups put their heads together to come up with an answer. Learners are numbered one to four and when the educator asks a question s/he calls a number (1 to 4), learners with that number raise their hands to answer. Group members who know the answer share the information because they realise that anyone in the team could be called upon and the group wants to do well (Schmuck & Schmuck, 1992:48).

2.3.3.4 Jigsaw

In this structure, each learner in a group is given one paragraph to study. The learner's job is to prepare to teach the contents of the paragraph to the other members of the cooperative group (Schmuck & Schmuck, 1992:48). A highly cooperative relationship develops between learners because the only way to know what others were learning is to listen carefully while they are teaching. Any group member may be called upon to answer any question (Schmuck & Schmuck, 1992:198).

2.3.3.5 Group investigation

Groups are presented with problems, and each group strategises how to solve the problem and what resources they will need (Schmuck & Schmuck, 1992:199).. The educator acts as the content or information literacy advisor. The groups can work independently until the time limit

is reached, then compare their notes. Some authors refer to this method as the "five square puzzle" (Schmuck & Schmuck, 1992:199).

2.3.3.6 Roleplay

Learners act out social problems (Lemlech, 1994:169). Situations that lend themselves to roleplay include political issues and psychological traumas. The problem presented should be open-ended with several possible resolutions.

According to Lemlech (1994:169) the skill requirements for effective roleplaying include listening, communication and problem-solving skills.

Roleplay involves several steps:

- introducing the problem;
- setting the stage;
- group work researching the issue, defining the roles;
- enacting the play;
- discussion and assessment (Lemlech, 1994:170).

2.3.4 Cooperative learning groups and the socialisation of learners

According to Schmuck and Schmuck (1992:19) the degree of socialization of learners depends on the extent to which learners have developed trust or distrust in others. Young learners are more likely, for example, to share a toy with a peer rather than with an adult stranger and they prefer to interact with a friend rather than with a strange peer (Donald *et al.*, 2002:101).

Learners also have the need for affiliation, power and achievement and it is the social climate of the school and the classroom which will determine how the

learners will execute these needs (Donald *et al.*, 2002:102).

Learners' need for affiliation is executed in the social relationships in which peers and learners think of their relationship with peers as more important than their relationship with educators (Schmuck & Schmuck, 1992:20).

According to Lemlech (1994:79) most learners' style of learning is peer-oriented, motivated and persistent. Such learners do effective school work and become trained towards independence when learning in small cooperative groups (Donald *et al.*, 2002:102).

Lemlech (1994:79) states that cooperative groups induct a sense of belonging with learners. A sense of belonging motivates attendance at school, encourages cooperative behaviour and enhances the ability to learn.

From the above it becomes clear that cooperative learning groups, namely, buzz session, snowballing, numbered heads together, jigsaw, group investigation and roleplay may affect the socialization of learners.

2.3.5 Steps for effective cooperative group learning

Galton and Williamson (1992:6) regard the seating arrangement of the class as one of the basic factors that contribute towards the success of cooperative group learning. The most preferred method of seating learners is in groups either around tables or at desks pushed together to make a square (Galton & Williamson, 1992:3). After the seating arrangement the following six steps are recommended for effective cooperative group learning:

- topic selection;
- cooperative planning;
- implementation;

- analysis and synthesis;
- presentation of final product;
- evaluation (Du Plessis, 2000:93).

A brief discussion of each step will follow:

First step : topic selection

McNamara (1994:68) suggests the involvement of learners in topic selection so as to ensure that their interest in the learning content is aroused and maintained. Hereafter, learners will then organise themselves into small two to six member groups that are academically and ethnically heterogeneous (Du Plessis, 2000:93).

Second step : cooperative planning

Here, both educator and learners plan their procedure for working because, according to McNamara (1994:68), the greater the degree to which learners are responsible for content, the easier it is for them to work within their own abilities.

Third step : implementation

Plans developed during cooperative planning are to be carried out during implementation. According to McNamara (1994:69), the level of difficulty of the task will determine the degree to which learners become attentive. This is so because novel, ambiguous, or challenging tasks are more likely to create problems of order for the educator because learners are more likely to question and ask the educator for guidance and negotiate what to do (McNamara, 1994:69).

working quietly and actively while in the group, encouraging everyone to participate, and interacting with group members in a courteous way (Du Plessis, 2000:94).

2.3.6.2 Functioning

Functioning skills refer to skills needed to manage to accomplish a group task and maintain effective work relationship (Schmuck & Schmuck, 1992:48). They are the second level of cooperative skills and include expressing support and acceptance for the contributions of group members, knowing when and how to ask for help or clarification, offering to explain or clarify another student's position and motivating the group with new ideas or suggestions when enthusiasm wanes (Du Plessis, 2000:94).

2.3.6.3 Formulating

These are the skills needed to build a deeper level of understanding of the material studied and they also stimulate reasoning strategies and maximise mastery of the material being studied (Schmuck & Schmuck, 1992:48).

Formulating skills are directed at helping learners understand and remember the material being studied and include encouraging the group members to summarise aloud what was covered, adding important information when something was left out of the summary, reviewing important information, and using learning strategies to remember important ideas (Du Plessis, 2000:95).

2.3.6.4 Fermenting

Fermenting skills are the skills needed to stimulate reconceptualisation of the material covered, search for new information and to communicate the rationale behind one's conclusions (Schmuck & Schmuck, 1992:49).

These skills are used to stimulate academic controversy so that learners will rethink and challenge one another's positions, ideas, and reasoning and examples include knowing how to criticize ideas without criticizing people, knowing how to formulate a coherent and defensible position on an issue, and knowing how to probe for and elicit information in order to arrive at answers and solutions to problems (Du Plessis, 2000:98).

To be able to teach the above skills, certain decisions have to be taken by the educator (Good & Brophy, 1994:298). Some of the decisions will be briefly discussed below.

- Deciding on the size of the group

  Cooperative learning groups tend to vary in size from two to six (Good & Brophy, 1994:299). When learners are inexperienced in working cooperatively, when time is short, and when materials are scarce, the size of the group should be two to three (Good & Brophy, 1994:299).

  When learners become more experienced and skillful, they will be able to manage groups of four or five members because cooperative learning groups need to be small enough so that every learner has the opportunity to participate actively (Good & Brophy, 1994:300).

- Assigning students to groups

  Educators may wish to assign learners the ability heterogeneous or homogeneous learning groups but homogeneous groups may be useful when working on a specific skill, procedure or set of facts (Schmuck & Schmuck, 1992:52).

- Planning how long groups will work together

The third decision educators make is how long to keep groups together and it is preferable to keep groups together for at least two or three weeks (Good & Brophy, 1994:295). Other educators like to keep a learning group together only long enough to complete a unit or chapter, although it is advisable for Maths educators to make their learners work with every other classmate (Schmuck & Schmuck, 1992:52).

- Arranging the room

Good and Brophy (1994:295) state that members of a learning group should sit close enough to each other so that they can share materials and talk to each other quietly and maintain eye contact with all group members. The room should be arranged such that the educator has access to each group and group members can meet in a circle to solve academic problems (Good & Brophy, 1994:295).

According to Schmuck and Schmuck (1992:53), the common mistakes that educators make in arranging a room are to place learners at a rectangular table where they cannot have eye contact with all other members; or move several desks together, which may place students too far apart to communicate quietly with each other and share materials.

- Planning materials

Educators should plan instructional materials to promote interdependence among learners. This can be done by, for example, giving only one copy of the materials to each group or give each group member different materials so as to force task differentiation (Good & Brophy, 1994:296).

When learners are inexperienced in cooperating, educators will want to distribute materials in ways planned to communicate that the task or assignment is a joint one, and that learners are in a 'sink or swim together' learning situation (Schmuck & Schmuck, 1992:53).

- Assigning roles

Roles should be assigned to ensure interdependence. For example, assign different members complementary and interconnected roles such as summariser-checker, researcher-runner, recorder, encourager, and observer (Good & Brophy, 1994:296). A summariser's role is to restate the group's major conclusions or answers. A checker ensures that all members can explain how to arrive at an answer or conclusion. An accuracy coach corrects any mistakes in another member's explanations or summaries, and a relator asks other members to relate current concepts and strategies to material studied previously. Assigning learners such roles is the most effective method of teaching them cooperative skills and fostering interdependence (Schmuck & Schmuck, 1992:54).

- Explain the academic task

According to Schmuck and Schmuck (1992:54), educators should clearly explain the academic task so that learners are clear about the assignment and understand the objectives of the lesson. Direct teaching and clarification of concepts, principles and strategies may take place at this point and educators may wish to answer any questions learners may have about the concepts or facts they are to learn.

- Structure intergroup cooperation

Educators may at this point, emphasise the value of both the intragroup

and intergroup cooperation (Schmuck & Schmuck, 1992:54). This may be done by asking the group to produce a single product or report, or to arrive at consensus concerning how assigned problems are solved, providing group rewards, giving bonus points if all members of a group reach a preset criterion of excellence, or picking a student at random to represent the group and explain its conclusions to the class (Schmuck & Schmuck, 1992:55).

- Structuring individual accountability

The purpose of the learning group is to maximise the learning of each member, therefore, lessons need to be structured so that the level of each learner's potential is assessed and that groups provide members with encouragement and assistance needed to maximise performance (Good & Brophy, 1994:296).

Individual accountability may be structured by having each learner individually tested or randomly choosing the work of one member to represent the group as a whole (Schmuck & Schmuck, 1992:55).

- Explain success criteria

Evaluations within cooperatively structured lessons need to be criteria-referenced so that educators should explain clearly the criteria by which learner's work will be evaluated (Schmuck & Schmuck, 1992:56). The criteria should be explained at the beginning of the lesson.

- Specify desired behaviours

The educator should define cooperative learning operationally by taking turns, using personal names, listening carefully to one another, and by

encouraging everyone to participate (Good & Brophy, 1994:296).

The educators will also specify behaviours that are appropriate and desirable within learning groups. Beginning behaviours are, for example, instructing learners to stay within their groups, to use quiet voices, and to take turns (Schmuck & Schmuck, 1992:57).

- Monitoring learner behaviour

The educator has to circulate to listen and observe groups in action, at the same time, noting problems in completing assignments or in working cooperatively (Good & Brophy, 1994:296).

Educators are allowed to use learner observers to gather information on the appropriateness of activities within each group (Wheeler & Birtle, 1993:31).

- Providing academic assistance

Educators will clarify instructions, review important concepts and strategies, answer questions and teach the necessary academic skills whilst monitoring the learning groups as they work (Wheeler & Birtle, 1993:31).

- Intervening to teach collaborative skills

As they monitor the learning groups, educators may find learners who do not have the necessary cooperative skills and groups where members are having problems collaborating. In such cases, the educator intervenes to suggest more effective procedures for working together and more effective behaviours in which learners should engage (Wheeler &

Birtle, 1993:32).

- Provide closure to the lesson

  At the end of the lesson, learners should be able to summarise what they have learned, and educators may wish to summarise the major points in the lesson, ask the students to recall ideas or give examples, and answer any final questions learners may have (Schmuck & Schmuck, 1992:56).

2.3.7 The role of the educator in cooperative learning

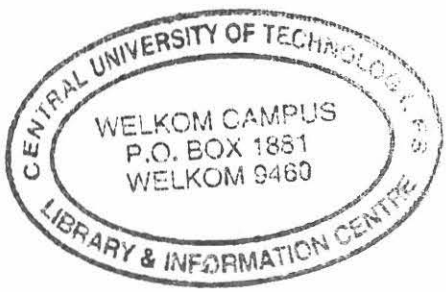
According to Lemlech (1994:88) the role of the educator in cooperative learning is to provide the following:

- motivation;
- acceptance;
- clarification;
- reinforcement; and
- evaluative procedures.

A short discussion of each of these aspects will follow.

2.3.7.1 Motivation

The educator's role is to motivate learners to participate actively in group work. The educator's feedback to the learners' responses must not be negative, but it must be positive and encouraging so that learners can participate more (Dean, 1992:92).



2.3.7.2 Acceptance

The educator has to accept each learner unconditionally. This unconditional acceptance will encourage learners to play a more active role in group activities (Wheeler & Birtle, 1993:31).

2.3.7.3 Clarification

Another of the educator's roles is to clarify the group work procedure at the beginning of each group assignment. This will make learners to know exactly what is expected of them and they will attain the desired objectives and outcomes (Lemlech, 1994:84).

2.3.7.4 Reinforcement

Positive reinforcement will motivate learners to put a greater effort into their group activities. This can be done by giving praise to a group that has done well (Wheeler & Birtle, 1993:33).

2.3.7.5 Evaluative procedures

After each group activity the educator should revisit the procedure involved to assess the level of its success. This will allow the educator to see where improvement is needed and to see which procedures are not effective. This can also be done together with the learners (Lemlech, 1994:87).

2.3.8 The role of learners in cooperative learning

Cooperative groups grow into maturity only after they develop interpersonal trust and groups in which trust is not established do not help individual members to develop self-esteem without which those members will not participate effectively

(Schmuck & Schmuck, 1992:51). The four basic concerns of individual members while their group is developing include: interpersonal acceptance, data flow, achievement of goals and freedom and control. Each of these concerns will be discussed briefly.

2.3.8.1 Interpersonal acceptance

This revolves around the feeling of acceptance and the formation of trust and confidence in the self and the group (Wheeler & Birtle, 1993:34).

One's feelings of adequacy and self-esteem are at stake, on the personal side, and for the group concerns of membership and trust in others are most important (Wheeler & Birtle, 1993:34).

2.3.8.2 Data flow

At this stage individuals think less about themselves and more about the group and the task at hand (Schmuck & Schmuck, 1992:51). They become aware of the way in which the group is functioning and begin to evaluate whether they like what the group is doing. If some degree of acceptance and trust has not been established, decision-making will be hampered by closed and guarded communication, and decisions will be made without the deep commitment and psychological ownership of all members (Schmuck & Schmuck, 1992:51).

2.3.8.3 Achievement of goals

During this stage members are concerned about the achievement of goals both for the individuals and for the group. Individuals want to achieve something that makes them feel successful and competent (Schmuck & Schmuck, 1992:51). They will become independent and autonomous provided that their earlier concerns have been successfully resolved.

Within the group, norms will be established about goals and procedures (Schmuck & Schmuck, 1992:51). If communication is open, goals can be determined to complement the individuals, and the group will develop a comfortable and flexible task structure.

2.3.8.4 Freedom of control

The final concern is for the amount of freedom and control experienced by the members. Individuals feel independent and autonomous, provided that earlier problems and concerns have been successfully resolved (Schmuck & Schmuck, 1992:51). For the group, norms are formalised, interpersonal behaviour are agreed upon, and the group is able to change itself when the members choose to do so.

These four concerns describe what goes on in the interpersonal underworld of most cooperative groups. Learners do not directly express their own ideas and opinions publicly until they have learned that their peers and the educator will not reject them. Learners who do not feel accepted and included will tend to withhold their ideas from discussion. They will feel alienated from academic learning, be without direction and poorly motivated, will suppress their feelings and not abide by the academic norms of the school (Schmuck & Schmuck, 1992:52). Learners who learn to trust their peers will become more involved in pursuing their own goals in the learning group and will tend to abide by the norms of the group (Schmuck & Schmuck, 1992:52).

2.3.9 Cooperative learning versus group work

According to Lemlech (1994:79), educators have been using group methods for as long as there have been classrooms. Many educators, though, tend to de-emphasise the use of groups because they have experienced group work in school settings to be disruptive and unproductive. This has resulted in their

disillusionment with group approaches to instruction.

Cooperative learning is a systematic model for helping educators implement and work with groups so that learners will consistently learn their subject matter, complete tasks, include all group members in their work, solve group problems with minimal educator assistance, resolve differences among themselves, and enjoy the process of working together (Lemlech, 1994:79).

In addition to the above, Adams, Hamm, Dorbnak and Lazar (1996:12) suggest that cooperative learning fosters the following:

- Motivates learners

  Groups of learners talking and working together on a problem or project experience the fun and the sharing of ideas and information.

- Increases academic performance and retention

  Classroom interaction with peer causes learners to make significant academic gains (Wheeler & Birtle, 1993:32).

- Encourages active learning

  Learners gain more when they are actively engaged in discovery and problem solving (Wheeler & Birtle, 1993:32). Talking about problem solving with others has been shown to spark an alertness of mind not achieved in passive listening.

- Increases respect for diversity

  Learners who work together in mixed ability groups are most likely to

select mixed racial and ethnic acquaintance and friendships (Good & Brophy, 1994:297). When learners cooperate to reach a common goal they learn to appreciate and respect each other.

- Promote literacy and language skills

  Team study offers learners many chances to use language and improve speaking skills (Good & Brophy, 1994:297).

- Helps prepare learners for today's society

  Group approaches to solving problems, combining energies with others and working to get along are valued skills in the world of work, community and leisure (Good & Brophy, 1994:298).

- Improves educator effectiveness

  By actively engaging learners in the learning process educators also make important discoveries about the learning styles of their learners (Good & Brophy, 1994:298). As learners take some of the responsibility for some of the educating, the power of the educator can be multiplied.

2.3.10 Relationship between cooperative learning and Outcomes-Based Education

The relationship between cooperative learning and outcomes-based learning cannot be over-emphasised for the mere fact that cooperative learning is a type of learning where group work among learners is emphasised, and group work forms an integral part of outcomes-based learning and the role of the educator, in both instances, is that of a facilitator (Olivier, 2001:7).

According to Olivier (2001:7), the facilitative role of the educator focuses not on how the educator facilitates the learning process, but rather on what the educator does to facilitate learning.

Olivier (2001:7) goes further to state that prior to facilitation of learning, educators should develop a learning programme that entails the following:

- specific outcomes;
- critical outcomes;
- end-product outcomes;
- plan on how to engage learners in learning;
- appropriate assessment criteria;
- organise learning material; and
- plan and schedule learning experiences.

During facilitation, educators should:

- facilitate learning in a one-on-one basis,
- facilitate group learning;
- council learners with regard to learning and supportive learning material and resources;
- monitor learners on learning progress and achievements;
- identify most appropriate course of action to achieve the outcome;
- create an environment where all learners can actively participate;
- educate in a variety of ways according to the needs of individuals and groups;
- manage groups;
- develop plans for future action;
- identify learners needing support, for example, mentoring explanations, coaching;
- explain difficult concepts;

- coach learners by instructing, demonstrating and challenging them to progress;
- mentor and guide progress; and
- demonstrate complex skills and activities (Olivier, 2001:8).

Outcomes-based learning requires facilitators to:

- impart knowledge that is inaccessible or needs to be explained to learners;
- provide guidance on how and where information can be obtained on knowledge, skills, values and critical outcomes that should be mastered;
- demonstrate whatever needs to be demonstrated;
- direct learners to capitalise on required knowledge, skills, values and learning processes to construct outcomes;
- intervene on a continuous basis with learners to confirm progress and direction;
- mentor, facilitate, promote, guide and encourage:
  - social interaction
  - scanning the contextual environment
  - the progress towards achieving outcomes
  - problem-solving
  - processing of information
  - obtaining of technical and cognitive skills
  - adherence to value systems
  - interpretation of information
  - contextualising outcomes
  - establishing of sound and valid performance criteria
  - identifying opportunities and resources that can be explored and
  - developing strategies that will support learning.
- establish which learning styles, within the context of the learning, will best support learning and promote other appropriate learning styles;

- determine thinking process preferences and promote other appropriate thinking processes;
- align the world of learning with the world of work;
- align the impact of the learning to relationships with people at home, peers, the broader society and the natural environment;
- give meaningful feedback on all learning related progress and achievements;
- facilitate gathering of evidence of progress made during all the phases of learning;
- propagate creativity by means of:
  - self-learning
  - contextual scanning of the environment
  - self-development
  - lateral thinking
  - looking at the other side of the challenge
  - looking at it from another person's perspective
  - thinking in ways in which nobody else is thinking
  - contextualising achievements into broader pictures or contexts
  - cross curricular thinking
  - social interrelationships and
  - focus on higher order thinking, communication and decision-making
- present alternative ways of presenting or packaging knowledge, for example sketches, mind maps, diagrams, graphs (Olivier, 2001:9).

To accomplish this, facilitators must ensure that they:

- establish what the intended objectives of the outcomes and envisaged goals of the learning programme are;
- establish what the learning programme requires from the learners, taking into account the phase and the range statements;

- identify the knowledge, skills, values and learning processes that should be demonstrated;
- identify the learning experiences needed to achieve the outcomes;
- plan and devise learning activities that support the learning experiences;
- determine the activities or tasks that must be executed to demonstrate evidences of learning and achievements;
- establish evidence that must be demonstrated in order to evaluate the outcomes. Special attention must be given to the type, nature and extent as well as the amount of evidence that is needed;
- determine methods of evidence collection that entail tests, observations and questioning;
- develop appropriate criteria to assess or judge the evidence;
- determine ways to ensure that the assessment is valid, reliable, flexible, fair and sufficient; and
- communicate the above with the learners (Olivier, 2001:9).

2.4 CONCLUSION

According to Donald, Lazarus and Lolwana (2002:195) the level of peer acceptance that a learner experiences has important developmental consequences. It is for this reason that educators should be aware of the patterns of acceptance and group membership that exist in their classes. Educators should take notice of the learners who are generally excluded and those who are generally included in the whole group. In most cases, in the classroom, there are those learners who are 'in' and those who are 'out'. Much pain is experienced by those who are 'out' and the educator must try to encourage such learners to participate in group activities and they must also be made to feel loved and wanted by the school in general, and the class in particular.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The research method that is used in this study is qualitative. According to Krathwohl (1993:314), qualitative methods are familiar techniques for handling verbal material. They also keep the researcher close to the data and facilitate understanding of the phenomena being studied (Krathwohl, 1993:314).

This study focuses on how cooperative learning affects the social interaction of learners and involves human relationships. For this reason, the researcher believes that qualitative methods are best suited for this study.

3.2 RESEARCH DESIGN

3.2.1 Research methodology

3.2.1.1 Qualitative research

Qualitative, interpretive research is useful for describing and answering questions about participants and contexts because the researcher studies the perspective of the research participants towards events, beliefs, or practices (Gay & Airasian, 2003:163). Gay and Airasian (2003:163) further state that qualitative research is useful for exploration, for beginning to understand a group or phenomenon, and it is exceptionally good for eliminating issues that cannot be addressed by quantitative methods.

According to Gay and Airasian (2003:164) qualitative research follows a certain procedure characterised by six steps which are as follows:

(i) Identify the research topic

Here the researcher identifies a topic or study of interest to research. Often, the initial topic is narrowed to be more manageable 9Bodorn & Biklen, 2003:51).

(ii) Review of research

The researcher examines existing research to identify useful information and strategies for carrying out the study.

(iii) Selecting participants

The researcher must select participants to provide data collection. Qualitative participants are usually few in number relative to quantitative samples and are selectively chosen (Bogdan & Biklen, 2003:67).

(iv) Collecting data

The researcher collects data from participants. The mehtods of data collection are interviews, observations, or artifacts (Bogdan & biklen, 2003:67).

(v) Analysing data

The researcher interprets the themes and results of the collected data. Qualitative research is interpretive in nature, rather than statistical.

(vi) Reporting, evaluation and interpreting research

The researcher summarises and integrate the qualitative data in narrative form (Gay & Airasian, 2003:164).

For the purpose of this research, interviews and observation will be used as research tools.

Interviews and observation are preferred because they form part of qualitative research designs which investigate behaviour as it occurs naturally in non-contrived situations and there is no manipulation of conditions or experience (McMillan & Schumacher, 1997:40).

3.2.2 Population and sampling

According to Krathwohl (1993:122) the target, in research, to which researchers wish to generalise is referred to as the population. The population of this study consists of all foundation phase learners in Thabong (Grades R-3). Only three schools will form part of the study and from each school two classes will be selected. In total six learners will be interviewed and observed with regard to their social interaction.

3.2.3 Interviews

Many researchers rely on the interview as a source of information because the interview results in true and accurate pictures of interviewee's lives and experiences (Denzin & Lincoln, 2000:646). The interview has become an universal mode of systematic inquiry (Denzin & Lincoln, 2000:646).

In this study, the researcher prefers the use of unstructured interviews because they are flexible, and few restrictions are placed on the interviewee's responses

(Patton, 2002:342). The order of questions can also be altered to suit the situation and interviewees, and interviewees are sometimes encouraged to talk freely and fully concerning a particular issue, incident, or relationship (Patton, 2002:342). Interviews will be conducted during break.

3.2.3.1 Types of interviews

According to Patton (2002:342) there are three basic approaches to collecting qualitative data through open-ended interviews. They involve different types of preparation, conceptualisation and instrumentation. Each type has strengths and weaknesses and each serves a somewhat different purpose. The three alternatives are the informal conversational interview, the general interview guide approach, and the standardised open-ended interview. Each approach will be briefly discussed below.

- The informal conversational interview

  This is the most open-ended approach to interviewing. Sarantakos (1998:247) refers to this approach as "unstructured interviews" which are flexible and which have few restrictions placed on respondents answers. If preplanned questions are asked, the queries, vocabulary and order of questions are altered to suit the situation and subjects. Krathwohl (1993:370) refers to this approach as the non-directive approach which requires the interviewer to rephrase and to reflect to the respondent the central significance and the underlying feelings of what the respondent seems to be saying. Non-directive responses are particularly valuable in getting the respondents to talk about and elaborate on the response (Krathwohl, 1993:370).

  According to Patton (2002:342) data gathered from informal conversational interviews will be different for each person interviewed.

Also, the same person may be interviewed on different occasions with questions specific to the interaction or event at hand.

Patton (2002:342) maintains that this approach works particularly well where the researcher can stay in the setting for some period of time so as not to be dependent on a single interview guide approach.

- The general interview guide approach

According to Patton (2002:343) an interview guide lists the questions or issues that are to be explored in the course of the interview. The aim of the interview guide is to ensure that the same basic lines of inquiry are pursued with each person interviewed.

Sarantakos (1998:247) refers to this approach as structured interviews which are rigidly standardised and formal so that the same questions are presented in the same manner and order to each subject and the choice of alternative answers is restricted to a predetermined list. Even the same introductory and concluding remarks are used.

- The standardised open-ended interviews

This approach requires carefully and fully wording of each question before the interview (Patton, 2002:344). The aim of the detail is to ensure that each interviewee gets asked the same question, the same stimuli, in the same way and the same order, including standard probes.

3.2.3.2 Interview questions

According to Patton (2002:348) six kinds of questions may be asked in an interview. They are experience and behaviour questions, opinion and value

questions, feeling questions, knowledge questions, sensory questions, background or demographic question. Each question type will be briefly discussed below.

- Experience and behaviour questions

  These are questions about what a person does or has done and aim to elicit behaviours, experiences, actions and activities that would have been observable had the observer been present (Patton, 2002:349).

- Opinion and values questions

  Questions aimed at understanding the cognitive and interpretive processes of people ask about opinions, judgments, and values (Patton, 2002:350). Answers to these questions tell us what people think about some experience or issue. They also tell us about people's goals, intentions, desires, and expectations.

- Feeling questions

  Feeling questions aim at eliciting emotions or feeling responses of people to their experiences and thoughts (Patton, 2002:350). In asking feeling questions the interviewer is looking for adjective responses such as, anxious, happy, afraid, intimidated or confident.

- Knowledge questions

  Knowledge questions inquire about the respondent's factual information or what the respondent knows (Patton, 2002:350). Knowledge about a programme may include knowing what services are available, who is eligible, what the rules and regulations of the programme are, and how

one enrolls in the programme.

- Sensory questions

Sensory questions ask about what is seen, heard, touched, tasted and smelled (Patton, 2002:350). Responses to these questions allow the interviewer to enter into the sensory apparatus of the respondent - they capture the experience of the senses.

- Background or demographic questions

Age, education, occupation, and sex are examples of standard background questions that identify characteristics of the person being interviewed (Patton, 2002:351). Answers to these questions help the interviewer locate the respondent in relation to other people.

3.2.3.3 How to conduct the interview

According to Sarantakos (1998:255) a successful interview is a dynamic interpersonal experience that is carefully planned to accomplish a particular purpose. The following steps are necessary to ensure a successful interview - preparing for the interview, establishing rapport, eliciting information and recording data. Each step will be discussed briefly below.

- Preparing for the interview

In preparation for the interview the interviewer has to decide what areas of information they would like to cover, and have also to decide on the questions they would like to ask to extract the desired data (Sarantakos, 1998:255).

- Establishing rapport

  Rapport involves, among other things, making interviewees feel relaxed and welcome, and this can only come about if the interviewers themselves are pleasant, efficient, straightforward and poised (Sarantakos, 1998:256). The interviewers must not adopt a superior, patronizing, clever, or cunning attitude.

- Eliciting information

  In the course of the interview, interviewers should be attentive, analytical listeners who know when they should repeat or explain a question (Sarantakos, 1998:256). They should also be able to introduce alternative or more penetrating questions to help respondents, recall information, amplify statements, clarify their thinking, rectify facts or give more concrete evidence.

- Recording data

  Interviewers have to use a schedule, a structured trust, or any system that will enable them to record notes quickly and accurately (Sarantakos, 1998:257). Tape recorders can simplify their work very much during interviews.

3.2.4 Observations

Observation is fundamental in research because it produces one of the basic elements of science, namely, facts (Sarantakos, 1998:304. During observation, researchers utilise their senses of hearing, sight, touch and even taste and through these senses researchers are able to gather facts, or empirical data that will help them locate a problem and solve it (Sarantakos, 1998:304).

In this study naturalistic observation will be used because the researcher is going to observe behaviour as it occurs naturally (Gay, 1992:234). In such situations the observer will purposefully control or manipulate nothing and will work hard at not affecting the observed situation (Gay, 1992:235). The aim is to record and study behaviour as it normally occurs without affecting it.

In this study the researcher will observe the pattern of relationships that occur among learners in order to establish how cooperative learning affects the social interaction of learners in the foundation phase. Factors that will be observed include the following: intimacy, nature of communication, motivation, and nature of relations that exist between learners (see Appendix C).

3.2.4.1 Conditions necessary for observation

(Sarantakos, 1998:304) states that observation involves four psychological factors to which observers have to give due consideration. The factors are attention, sensation, perception and conception. Each factor will be briefly discussed.

- Attention

  Attention is a necessary condition for successful observation. This condition is characterised by a mental state of alertness which an individual assumes so as to sense or perceive selected events, conditions or things (Sarantakos, 1998:305). Learning to "pay attention" is an important part of observational training. Researchers can motivate themselves to observe a specific segment of phenomena with an active, inquiring mind (Altrichter, Posch & Someckh, 1993:36).

- Sensation

According to Altrichter, Posch and Someckh (1993;36) humans become aware of the world around them through their senses or their extension by appropriate sensing apparatus. When these senses reach the brain, humans experience a sensation a smell, a taste, a shape or sound.

To obtain clear, undistorted signals from phenomena, one needs to take the following precautions: remove any cues that might cause subjects to alter their behaviour, eliminate competing sensory stimuli, place yourself in the most favourable vantage point for observation and employ specially designed instruments to extend the range and clarity of your observations (Altrichter *et al.*, 1993:37).

- Perception

Perception is the art of linking what is sensed with past experience to give the sensation a meaning, for example, sound remains a mere noise until one learns to identify it as the ringing of the telephone, rumbling of thunder or mewing of the cat (Sarantakos, 1998:305).

- Conception

A concept is a symbol or term - a class name - that is invented to communicate with others about the similarities or relationships that one has noted (Altrichter *et al.*, 1993:92). According to Altrichter, Posch and Someckh (1993:92) concepts in observation can either be descriptive if they describe behaviour as it is, or interpretive when they clarify the effect of behaviour on the researcher, that is, the feelings which were evoked, or sensations experienced.

3.2.4.2 Observation techniques

Karthwohl (1993:316) distinguishes between the following types of observation techniques : covert participant observer, concealed recording equipment or concealed observer, participant observation (recording done out of sight of observed), participant observation (recoding done in sight of observed) and non-participant observer.

Each technique will be discussed briefly.

- Covert participant observer

  This is the most difficult of all the observation techniques because the researcher has to conceal their role (Krathwohl, 1993:316). It is physically exhausting due to role tension. According to Patton (2002:270) this technique where observation is done without the explicit and fully informed permission of the person to be observed is "morally obnoxious" because the observed has to be informed of the intentions and actions of the observer. Its advantages, include researchers gaining access to data or information to which no one else could discover. Also, behaviour is uninhibited by the presence of an outsider (Krathwohl, 1993:317).

- Concealed observation

  Observation behind two-way mirrors or from some hidden and unobtrusive location is feasible in institutional settings, for example, universities (Patton, 2002:270). Participants are usually informed when they are being observed and they also know the purpose of the mirror as well but behaviour usually returns to what appears to be normal because there are no video equipment present (Krathwohl, 1993:317).

- Unconcealed participant observation

  These observers are open about their observer role but acting as a participant at some level reduces the focus on them (Krathwohl, 1993:318). Acting as a participant also instructs the researcher on what it feels like to be in the situation of the observed (Patton, 2002:271).

- Non-participant observation

  In this situation behaviour is observed as it occurs naturally (Gay, 1992:234). The advantage of this technique is that it provides freedom to concentrate entirely on observation and to become sensitive to the significance of what is occurring (Krathwohl, 1993:318). Patton (2002:262) refers to this method as naturalistic observation which takes place in the field, where the field can be either a cultural setting for ethnographers or an organisation for qualitative organisational development researchers.

3.2.5 Data collection

Data will be collected by means of interviews and naturalistic observation.

Interviews will be semi-structured because questions and order of presentation will be predetermined (McMillan & Schumacher, 1997:263). Questions are open-ended to allow the researcher to probe where responses are not clear or lack detail, and the researcher records the essence of each response (Krathwohl, 1993:368). Interviews will be conducted in any room which will be made available at the school and interviewees will be seen one by one.

3.2.6 Data analysis

Information collected by means of interviews and observation will be analysed. In-depth probing of the learners responses will be made to give clarity to responses which lack detail or are not sufficient (Krathwohl, 1993:368).

Information gathered through observation will also be analysed. The researcher will study the pattern of relationships that occur among learners in order to establish how cooperative learning affects the social interaction of learners.

3.3 CONCLUSION

Two most important means of collecting data in qualitative research are interviews and observation (Tuckman, 1988:393). The purpose of these two methods is to acquire information related to the problem being investigated (Tuckman, 1988:393).

The use of the two methods of data collection, namely interviews and observation, will enable the researcher to establish the extent to which cooperative learning affects the social interaction of learners in the foundation phase.

CHAPTER FOUR

DATA ANALYSIS

4.1 INTRODUCTION

This chapter is based on qualitative research conducted which, according to Wiersma (2000:11), refers to research that describes phenomena in words instead of numbers or measures.

Qualitative research has its origins in descriptive analysis which involves collecting data in order to test hypothesis or answer questions concerning the current status of the subject of the study or reports the way things are (Gay, 1992:13).

Interviews were conducted. Two learners and two educators from each of the three schools were interviewed as a means of collecting data. The researcher will use letters A - F to represent the learners and educators who were interviewed. Questions and responses are recorded below.

4.2 RESPONSES FROM INTERVIEWS WITH LEARNERS

Question 1 : "How do you do your school work in class?"

Learner A : "We do our work in groups".
Learner B : "Our class is divided into groups".
Learner C : "In groups".
Learner D : "Group work".
Learner E : "We work in groups".
Learner F : "Marks are allocated according to groups".

All learners work in groups. This is so because they are given tasks and problems to solve as groups and marks or scores are allocated likewise. The fact that they work in groups means that they have to interact socially throughout the day whilst attending to their work.

Question 2 : "How do you approach your tasks or assignments as a group?"

Learner A : "We divide the work among ourselves".
Learner B : "We share the work equally".
Learner C : "Every member is given a share of the work".
Learner D : "We study then discuss the work".
Learner E : "We share the work".
Learner F : "We discuss the work after reading".

Most learners approach the work by sharing it equally among themselves. Each learner tackles their piece of work then report to the group when they meet. Other groups still prefer having all members study the whole work individually, then meet later on to discuss what they have studied. There is room for independence within groups although individual members still have to report their findings to the group. Independence is a positive attribute of any social interaction.

Question 3 : "What is your role in the group?"

Learner A : "I write down the inputs during discussion".
Learner B : "They always choose me to report to the educator".
Learner C : "I am the group leader".
Learner D : "I am the secretary".
Learner E : "All group members report to me before we report to the educator".
Learner F : "I report to the educator the information from our group".

Most of the respondents are group leaders whose task is to report to the educator on behalf of the group. Others are scribes whose duty is to record the inputs of other members during group discussions. This means that the social leadership roles begin to take shape early among group members. Already in the foundation phase, learners with leadership qualities assume their roles.

Question 4 : "How do you relate to other group members?"

Learner A : "We cooperate".
Learner B : "Sometimes we argue".
Learner C : "We work well most of the time".
Learner D : "We argue because some members are lazy to do the work".
Learner E : "Those who are lazy annoy me because we all get punished for their mistakes".
Learner F : "We are happy most of the time".

Some groups have cordial working relations because their members are cooperative and committed to their school work. Others find themselves having to argue most of the time because of members who are not committed to their work. Such members annoy others because the group will get lower marks because of them. The learners relationships are characterised by conflict and harmony which are characteristics of normal social interactions.

Question 5 : "When do members of your group irritate you?"

Learner A : "When they do not want to work".
Learner B : "When they avoid school work".
Learner C : "If they deliberately forget school work".
Learner D : "When they are lazy".
Learner E : "When I always have to remind them about school work".
Learner F : "When we fight over school work".

From the responses above it becomes clear that the greatest source of conflict among group members is avoidance of or inability to do school work. Some members are more motivated than others and those who are motivated become irritated when the less motivated refuse to do school work. Lethargy among other group members is the greatest source of conflict, and it puts a strain on the social relationships that exists.

Question 6 : "Why do you find yourself irritated by them?"

Learner A : "They make us fail".
Learner B : "We do not want to fail".
Learner C : "The group marks become low because of those people".
Learner D : "Our marks become low".
Learner E : "We get punished because of their mistakes".
Learner F : "We fail because of them".

Group members become irritated because the whole group receives less marks if some members do not exert themselves well. The whole group gets punished if the educator feels that some of the group members did not do their work. Lack of cooperation by some group members, coupled with fear of failure by other group members put a strain on the social relationships that exist.

Question 7 : "When do you share enjoyable moments with the group?"

Learner A : "When we receive good marks".
Learner B : "If we have done good work".
Learner C : "When the educator praises us".
Learner D : "When the educator writes 'good' in our books".
Learner E : "When we pass".
Learner F : "When the educator is happy with us".

According to the responses the achievement of tasks to the best of the group members' abilities and the reward thereof is what brings enjoyable moments. The rewards include good marks, positive comments from educator and sometimes even a smile from the educator makes the group members feel happy. Proper focus and cooperation on the part of group members leads to the attainment of good marks, and this in turn enhances the social interactions that exist among group members.

Question 8 : "Why do you regard such moments as enjoyable?"

Learner A : "They make us happy".
Learner B : "We do not fight".
Learner C : "We laugh".
Learner D : "We do not argue".
Learner E : "We are happy".
Learner F : "We feel good".

The responses indicate that such moments are regarded as enjoyable because they are happy moments for the group members. It is rewarding for group members to realise that their efforts have led them to the achievement of desired goals. Proper cooperation leads to success and success brings harmony to the social interactions of learners.

Question 9 : "How do you relate to other group members outside school?"

Learner A : "We are friends".
Learner B : "We play together with Mpho because her home is near mine".
Learner C : "I seldom meet members of my group in the location".
Learner D : "I walk together with Sello to school because his house is on my way".
Learner E : "Those that stay close to my home are my playmates".

Learner F : "Members of my group stay in a different area".

The general pattern is that learners who stay close to one another become friends even outside school. Proximity makes it possible for them to play together and do homework together outside school. Those that stay a distance apart find it difficult to meet. This implies that group members interact socially outside school if they stay in close proximity to one another.

4.3 RESPONSES FROM INTERVIEWS WITH EDUCATORS

Question 1 : "How many teaching methods do you use in class?"

Educator A : "Two".
Educator B : "Two".
Educator C : "Three".
Educator D : "Two".
Educator E : "Three"
Educator F : "Two".

Most educators use an average of two teaching methods in class. Some use three teaching methods especially where the learning area requires the use of experiments.

Question 2 : "Can you mention the methods?"

Educator A : "Group work and individual".
Educator B : "Group work and individual".
Educator C : "Group work, self-discovery and question and answer".
Educator D : "Group work and individual".
Educator E : "Group work, individual and self-discovery".
Educator F : "Group work and individual".

Most educators make use of group work and individual method. This is so because they give groups tasks and problems to solve and whilst learners are busy educators round the groups to give individual attention to learners who need it. Some educators make use of self-discovery and question and answer methods.

Question 3 : "Which method do you prefer?"

Educator A : "Group work".
Educator B : "Group work".
Educator C : "Question and answer".
Educator D : "Group work".
Educator E : "Self-discovery".
Educator F : "Group work".

Most educators prefer having their learners work in groups. Other educators prefer question and answer and self-discovery methods.

Question 4 : "Why do you prefer this method?"

Educator A : "Learners share ideas".
Educator B : "Learners share knowledge".
Educator C : "The method makes it easy for the educator to establish how much learners know".
Educator D : "Learners are able to know each other's weak points and strong points because they work together. This way they are able to help each other".
Educator E : "I usually introduce the topic then give the learners a problem to solve on their own. I do not leave them but help them towards the solution".
Educator F : "Learners help each other".

Most educators prefer group work because of the interaction and interdependence that develops among learners in terms of sharing knowledge and skills. One educator prefers the question and answer method because it enables the educator to establish how much learners know. Another educator prefers the self-discovery method because it enables learners to solve problems on their own but with the strategic guidance of the educator.

Question 5 : "What is your opinion regarding cooperative learning as a teaching method?"

Educator A : "It encourages close working relations among learners".
Educator B : "Learners learn to work together".
Educator C : "Learners become close".
Educator D : "Learners help and support each other".
Educator E : "The concept of sharing becomes so embedded in learners that they even share resources such as instruments and writing or drawing material".
Educator F : "Learners do work together e.g. homework".

The general feeling among educators is that cooperative learning encourages learners to have good working relations. It eliminates self-centeredness and learners help each other with schoolwork and even share resources like instruments and writing or drawing material.

Question 6 : "How strong are friendships that develop from cooperative groups?"

Educator A : "Learners become friends outside the classroom".
Educator B : "It depends on the proximity of learners in terms of the area in which they stay. Those whose homes are close together become playmates and friends even outside school".
Educator C : "Some learners become playmates at home".

Educator D : "Those who stay in the same neighbourhood walk home together after school".
Educator E : "Friendships develop from cooperative groups".
Educator F : "Some friendships become so strong that even high school those who became friends still do things together".

The general feeling among educators is that friendships develop from cooperative groups. The strength of such friendships depends on where learners stay. Friendships become stronger if the learners stay in the same neighbourhood Those who stay a distance apart still meet during weekends to discuss school work, especially homework.

Question 7 : "How far do these friendships go?"

Educator A : "Group members become friends outside the classroom".
Educator B : "Members of a group get used to working together to an extent that they become friends".
Educator C : "Learners become friends because of groups to which they belong".
Educator D : "Group members play together".
Educator E : "Subgroups are found within groups. Some members are closer than other members".
Educator F : "Group members become close".

The general observation of educators is that the working culture of a group turns into friendship. The friendship that exists may not be general to all group members. Some subgroups will develop within groups. Two or more members will be closer to one another than the rest of the group.

4.4 DATA FROM OBSERVATION

4.4.1 Communication

The researcher observed that communication does take place among group members, although some group members communicate more frequently than other members.

4.4.2 Closeness

Group members are generally close to one another but a few members are more intimate than other members. This created an impression to the researcher that sub-groups exist within groups.

4.4.3 Happiness

Group members generally enjoy the company of other members. They share jokes together about presentations that were done in class.

4.4.4 Educator-learner relationships

Educators do communicate with learners on a frequent basis. This communication is generally educational where educators give instructions to learners. Learners share jokes with educators even though they know their limits.

4.5 SYNTHESIS

Responses from learners indicate that they always work in groups because they are given tasks as groups and marks or scores are allocated to groups, not individual learners. For this reason learners share the work equally among

themselves and each learner tackles their own piece of work then reports to the group when they meet.

Another indication is that different roles are allocated to members of the group. For example, some become group leaders whose task is to report on behalf of the group, while others become scribes whose task is to record the inputs of group members during discussions. This means that the social leadership roles begin to take shape already in the foundation phase. Responses from educators indicate that the most commonly used teaching method in the foundation phase is group work. The reason cited by the educators for the use of this method is that it enables learners to interact and learners become interdependent in terms of knowledge and skills and they also share their resources.

Educators also indicate that friendships develop from these cooperative groups but the strength and depth of such friendships depends on where learners stay. Friendships become stronger if the learners stay in the same neighbourhood. But, according to educators, not all group members become close friends because subgroups develop within groups. These subgroups consist of two or more who will be closer to one another than the rest of the group.

4.6 CONCLUSION

The types of interviews that were conducted in this research are, according to Gubrium and Holstein (2002:83), qualitative interviews because their emphasis is on the researcher asking questions and listening, and interviewees responding. The purpose of qualitative interviewing is to derive interpretations from the responses of interviewees (Gubrium & Holstein, 2002:83). The researcher hopes that the use of these interviews and observations will shed light as to the effect of cooperative learning on the social interaction of learners.

CHAPTER FIVE

INTERPRETATION OF RESEARCH FINDINGS

5.1 INTRODUCTION

Donald, Lazarus and Lolwana (2002:111) state that the classroom is a subsystem of the whole school system and the classroom interacts with the community and the social system as a whole. To understand any classroom, we need to be aware that the society's values and norms are reflected in the classroom. The classroom is a microcosm of society as a whole.

The research findings that follow will show how cooperative groups within classroom reflect the values and norms of the society.

5.2 RESEARCH FINDINGS

The empirical research revealed the following findings:

- Cooperative learning enables learners to attend to their school work whilst they also interact socially.

- Learners can divide school work equally among all members of the group and, this way, group members learn to be responsible which is a positive attribute of social interactions.

- Groups have leaders, scribes and other roles. This enables learners to acquire leadership qualities.

- In groups learners' relationships are characterised by conflict and harmony which are attributes of social interactions.

- The greatest source of conflict is laziness by other group members and this puts a strain on the social relationships that exist.

- Harmony among group members exists when good marks are attained by the group, and this enhances the social interactions among group members.

- Group members interact socially outside school if they stay in close proximity to one another.

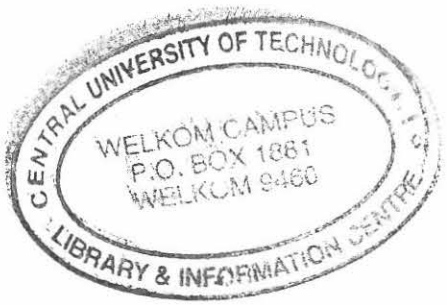
- The majority of educators in the foundation phase use group work because it is a government stipulation that group work must be used for Outcomes-Based Education.

- Most educators believe that cooperative learning encourages interdependence among learners.

- Cooperative learning makes learners to work together and learners also share resources in the process.

- Friendships develop within cooperative groups. The strength of such friendships depends on the neighbourhood from which learners come.

- Learners who come from the same neighbourhood are more likely to become close friends than those who come from different neighbourhoods.



5.3 RECOMMENDATIONS

The following recommendations are made:

- cooperative learning should be used at all bands of the education system. Presently, cooperative learning is used up to grade 9 and this should be extended to include all bands because it may be the most effective method that enhances the social interaction of learners;

- educators should attend workshops where they will be conscientised with regard to the importance of cooperative learning so that they can be more effective in applying this method; present workshops are learning area centered and do not emphasise the method of delivery;

- groups should be made up of learners who stay in the same neighbourhood, where possible, so that they will be able to meet to do school work after school;

- groups that attain low marks should be interviewed by the educator to establish the cause of the problem so as to try to solve the problem.

5.4 SHORTCOMINGS OF THE STUDY

The following shortcomings were found:

- financial constraints;
- only three primary schools were included in the study and many more were excluded;
- only foundation phase learners were interviewed and not other phases;
- farm schools and former Model C schools were excluded because the focus was on township schools only.

5.5 FUTURE RESEARCH

For future research the researcher suggests the inclusion of all educational phases that use Outcomes-Based Education methodology, that is Grades R-9. The researcher also suggests the inclusion of all schools, namely, former Model C schools, rural schools and township schools. For such a broad study to be conducted, funding from the Department of Education should be made accessible to all post-graduate students involved in educational research.

5.6 CONCLUSION

Cooperative learning has been found to inculcate values such as independence responsibility, work orientatedness, and a sense of focus on success. In cooperative learning the learners know that their contribution in the group can decide whether the group fails or succeeds and will strive for success because success makes the group happy and results in harmonious relations prevailing among group members.

The learner works independently on their own piece of work that was assigned by the group and about which the learner will report to the group. Total diligence and attention has to be given to this piece of work for it may decide the group's fate. If the learner does not give full attention to their work this may result in the group obtaining lower marks and will create tension within the group.

The research that was conducted for this study has shown cooperative learning to have a positive effect on the social interaction of learners. For this reason, the researcher believes that there is a need to strengthen cooperative learning at schools by, for example, retraining educators and reducing class sizes.

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APPENDIX A

INTERVIEW QUESTIONS FOR LEARNERS

1 How do you do your school work in class?

2 How do you approach your tasks or assignments as a group?

3 What is your role in the group?

4 How do you relate to other group members?

5 When do members of your group irritate you?

6 Why do you find yourself irritated by them?

7 When do you share enjoyable moments with the group?

8 Why do you regard such moments as enjoyable?

APPENDIX B

INTERVIEW QUESTIONS FOR EDUCATORS

1 How many teaching methods do you use in class?

2 Can you mention the methods?

3 Which method do you prefer?

4 Why do you prefer this method?

5 What is your opinion regarding cooperative learning as a teaching method?

6 How strong are friendships that develop from cooperative groups?

7 How far do these friendships go?

APPENDIX C

OBSERVATION SCHEDULE

Communication

Do group members talk together during break?
How frequent is their communication?

Closeness/Intimacy

Are group members close?
Do they mix with other learners?
Are some members closer than others?

Happiness

Do they share jokes?
Do they enjoy each other's company?

Educator-learner relationships

Do learners communicate with educators?
Is this communication social or educational?
Are learners free to share jokes with educators?